



The
"Be Prepared"
Booklet for
Young
Australians

Author - Brian Thompson (SPA Member)

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Author’s notes

There are many other challenges you will face in the future such as:

Biodiversity – loss of species including animals, fish, birds, plants and trees.

Acidification – pollution of the seas, land and waterways

Economic uncertainty – and the list goes on.

I have not said much about these topics as I know very little about them and will leave it to others.

A few books I should mention if you wish to learn more about the topics I cover are:

Overloading Australia by Mark O’Connor & William J. Lines

Dick Smith’s Population Crisis and his ‘Population Puzzle’ DVD

The CSIRO Climate Change & The Science of Tackling Climate Change (these can be downloaded from the CSIRO’s Website):
<http://www.csiro.au/resources/Publications.html>

Zero Carbon Australia Stationary Energy Plan – University of Melbourne (offers some ideas for a carbon free future) can be downloaded from beyond zero emissions website:
<http://beyondzeroemissions.org/>

For Older Australians - The End of Growth and the Post Carbon Reader by Richard Heinberg and team.

Brian Thompson – SPA NSW Member: www.population.org.au

PLEASE LEAVE
SOME FOR US



Introduction

This booklet is based on my interpretation of what the Scout Leader, Lord Baden-Powell, would be thinking about in these current and uncertain times. What would he be saying to today's young people?

Two of his quotations were – “There's nothing like 'Being Prepared,' is there, for what might seem possible, even if it may not seem probable.” And, “Try to leave this world a little better than you found it and, when your turn comes to die, you can die happy in feeling that at any rate you have not wasted your time but have done your best.” They are still very valid today.

I have listed some of the challenges the current youth (you) will face in the not too distant future;

Resource Depletion – running out of those things which are mined and pumped out of the earth to give you the high standard of living you have come to expect. This situation will not happen overnight and the first signs will be sharp increases in the price of crude oil also oil companies drilling in ever more extreme and sensitive locations.

Global Warming (climate change) – still the big unknown and we don't really know how it will affect us in Australia. However, based upon the work of our own scientific organisation, CSIRO, the changes will be significant and will change the way you live. (Read the CSIRO'S report on Global Warming – it's on their web site).

Unsustainable Population Growth – the more people the faster the previous two items will approach. This year the UN called on all people globally to have below replacement level families. You can make a difference.

Please don't get too worried or depressed when reading about these changes – population has increased due to things we can all be thankful for e.g. better medical care and good nutrition. Our living standard has improved thanks to availability of fossil fuels, together with modern technology, you all accept these benefits. They just need to be counterbalanced by humane ways to reduce population.

Let's take a more detailed look on how these three challenges will affect you and then see how best to tackle them.

Resource Depletion

I will start with the most common one and the one that will potentially affect you most – OIL

The majority of mechanical motorised devices need oil to make them run. Oil is made into petrol, kerosene and diesel to power cars, trucks, aircraft, ships, some trains, tractors and other items used on the farm to produce our food. Yes, there are alternatives to oil – bio-fuel (made from crops) and gas which is taken from the earth in a similar process to oil. Both of these products can be used as a replacement for oil, with a few modifications to the vehicles engine and fuel storage tanks. However, while oil comes from a point source in the ground - an oil well, bio-fuels take a large area of land to grow – and so compete with existing land uses e.g. growing your food, protecting your forests.

Warning – if you use gas in the same quantities as you use oil it will also have a “Run Out” sign in the foreseeable future.

For example let’s look at where fuel oil is required to put a loaf of bread on your table:

- In the tractor to plow the fields and sow the crop
- To fuel the aircraft to spray the crop against pests
- Used in the production of fertilisers e.g. super-phosphate to feed the soil (and phosphate is also running out!)
- In the harvester to reap the crop
- In the trucks and trains used to transport the crop to storage silos, then to the miller to turn the grain into flour and the to the baker to bake the loaf
- Finally, travelling in your car to bring the loaf of bread home from ever more distant shops and supermarkets.

Warning - you will have to grow lots of crops to produce enough bio-fuel to replace your oil requirements and in doing so you will reduce the amount of arable land needed to grow the crops you eat. This will mean you will need to have a lower population if everybody is to be fed.

Wow! All this just for a loaf of bread – can you think of any products that don’t require oil somewhere during their production and distribution. I can’t.

Let’s stick with bread and look at the alternatives you could use to replace oil.

Due to the expected shortage and high cost of oil, leading to higher transportation costs, you would expect to see a reduction

in grain exported to other countries. This may have a flow on effect with farms producing less grain (unless population increases take the extra); hence the farmer might have some spare land where a bio-fuel producing crop can be sown. If small bio-fuel refining plants can be built and strategically placed farmers could have a small supply of fuel to run their tractors, harvesters etc.

Fertilizer is the other item required by the farmer as most of Australia's soil is of a very poor quality. I have no doubt that your scientists are working hard and might come up with some oil free solutions. As the price of oil increases it will make solving this problem more urgent.

It would be great if you had an electric train network between the cities and the countryside where the crops are being produced, however you don't, in fact over many years governments have been reducing the rail network in favor of the powerful trucking industry. The only short term solution is to convert our truck to gas – assuming you haven't exported it all to China! In the midterm you must create a nationwide electric freight train, or similar, network – wind, solar or nuclear powered. If this is not achieved the long term solution is that you'll just have to move closer to where the food itself is produced.

The last item is the consumer (you) and some of you will have to travel long distances to supermarkets to get your humble loaf of bread – a very inefficient process. The solution depends on the distance you have to travel to the shop. Zero to 2km – walk or cycle, 2km to 10km – electric powered cycle, 10km to 50km – electric car and above 50km – move closer to the food source. A couple of other solutions – a purpose built horse drawn or electric powered delivery van – like in the old days – ask your

grandparents about them. You could also expect to see an increase in corner stores and the demise of supermarkets and city dwellings.

As you can see you can have solutions to oil shortages however they become harder unless Australia's population is actually reduced – at the moment it is going up. You must also make these solutions as clean as possible to keep carbon and other green house emissions as low as possible.

There is another product oil is used for and that is the production of plastics. Yes, the stuff your loaf of bread is wrapped in. Oh well, its back to the paper bag for bread and glass bottles for milk. But that's not the end, just look around, the case on your I-pad, your television, the fridge, the car – where does the list end? Yes you are all plastic junkies! Only one answer when the oil runs out – change your life style, don't discard products just because they are old, out of fashion or not working, have the product repaired. Finally at the end of the product's life, have all the plastic items recycled.

Oil and Gas are not the only products extracted from the earth. Coal is mined and burnt to produce electricity, iron ore for making steel, bauxite for aluminum, from which your beer cans are made, and many other minerals. Australia is very lucky as it has an abundance of most minerals and with the exception of a few of the "rare minerals", you may not see shortages in your life time. However, at some time in the not too distant future Australia will run out of accessible minerals if mining continues at its current and increasing rate and oil, on which mining depends on runs out. The one thing you can do (with the exception of coal) is to re-cycle all the materials when your products are finally discarded.

The big negative is the energy used to turn the mineral ore into usable end products. No you can't use many mineral ores without changing their structure by heating them up and changing their shape. All this takes a lot of energy and produces a lot of nasty gases and other by-products. Coal is the source of most of the energy we use. You either burn it to boil water for the steam to turn the turbines to produce the electricity to run the arc furnaces to turn bauxite into aluminum (deep breath) or heat coal to make coke to mix with iron ore in a furnace to eventually produce steel. Each mineral has its own process stream to turn the mineral ore into the products you all use. You might like to research some of the other processes and identify the nasty by-products which are affecting our planet.

Uranium is also used as an energy provider through nuclear reaction – at some time in the future you may have to use it so keep all options open and continue a high level of research.

One last comment on Resource Depletion. You all live on a single planet and the resources you use have taken many millions of years to form and they are all finite and can't be replaced for many more millions of years. The more people living on this planet the quicker they will be used. If you want your children and grandchildren to have a life – well you may be able to think of some answers.

Global Warming (Climate Change)

I will start this section with a couple of photographs. The first one I took in June 1966 while I was on holiday in New Zealand. The photo shows a small pond on the Tasman Glacier about 20 x 5m.



The second photograph was taken in November 2010 – 44 years later and the pond was now a lake 5km in length and about ½km wide and still growing.



There is nothing like seeing the evidence of global warming for oneself and find it has happened over such a short space of time. Do you need any more proof? Well yes, some say it has all happened before and I am sure it has. However when you look at the records from core drilling in Antarctic ice it shows that in previous warming events it has taken thousands of years to make a change of the magnitude of what you are experiencing in a lifetime.

Do any of you or your parents have experience of global warming events? If yes, I would like to hear their stories.

Let's accept the science and believe that global warming and climate change are happening. How will it affect you and the way you live and how can you adapt to the expected changes?

As humans our main requirements for sustaining life are clean water, good food and shelter and "NO," a new I-pad and I-phone are way down the list. I will take them in order starting with too much water i.e. rising sea levels. This should not be of major concern to you in Australia, compared to a low-lying, densely populated country like Bangladesh. However, many people insist on living as close as possible to the sea and around estuaries which are tidal. This should not be a major problem in the short term except for owners with properties built on sand dunes and close to the high water mark. As a general rule their property's value will decline as the threat from water rise increases. The medium to long term the outlook is unpredictable and I would suggest that before moving into your first home you consider its location with respect to its height above sea level and make the sensible decision.

There is plenty of fresh water in Australia but only a small amount of it is drinkable and available locally to be piped to your

dwelling. As you know most of the drinkable water starts of as rain and I think it will continue to rain in the foreseeable future. However, all our major capital cities now have desalination plants because their populations are too high for the water available. The Murray- Darling Basin, our main 'food bowl,' has too little water on average for both the environment and our farmers to use and our underground sources, artesian wells, are being depleted. The big question is – given the possible changes to our weather patterns – will it rain in sufficient quantities in the places you need it? Well, I believe the answers are not fully know as yet but according to our CSIRO scientists Australia is going to have some significant changes to its weather patterns in the foreseeable future. The motto is “BE PREPARED”.

The main use for water, apart from drinking and washing, is food production. As you all know Australia is a hot dry land with much of its surface area classed as desert or semi desert with very little top soil suitable for growing crops, even with abundant rain. Most of Australia's arable land is already being used and to keep it arable for your future food requirements it will have to be looked after.

- Taking water from rivers and underground aquifers must be judged to be sustainable and closely monitored. Climate change forecasts should also be taken into account.
- Open water channels should be covered or piped to reduce evaporation. Where possible, water collected in dams should be pumped up to a closed reservoir and released only as needed to livestock drinking troughs etc., keeping dams empty.

- Native trees, adapted to the conditions, should be planted to provide shade and help reduce dust storms when precious top soil can end up out at sea. Trees also act as carbon sinks and it is thought that rain forests attract rain.

Farmers and other food producers are all doing a good job and you have to support them even if it means paying higher prices. As you will note from the previous chapter we won't be able to rely on cheap imported food when the price of oil hits the roof.

Currently nearly a billion people worldwide don't have reliable access to food, according to United Nations estimates, and some experts say climate change will drive that number even higher.

In Australia you are lucky as your land can still supply all the food you need to sustain the current population but much of our agricultural produce has to be exported to trade for oil needed to run agriculture itself and our soils are very low in essential phosphorus. As well, our population is rising faster than that of any other developed country due mainly to high immigration. However, Australians have chosen, because of economic considerations, to import cheaper foods from less developed countries where production costs are lower. While this situation seems to be all right in the short term situations can and will change in the future. You must therefore be prepared for these changes and maintain our soils and farming expertise in a healthy condition so you can call on them for import replacement when the time comes. Funding must be provided to the farmers who keep their land in good order even if they don't currently produce any crops.

People must continue to look for new areas where crops and live stock can flourish as climate changes take effect. Who knows, as

recently experienced, some areas in Central Australia have had good rain fall and the desert is blooming while other areas within the country are still in drought. Agricultural departments, both Federal and State, along with the CSIRO have a big job to do monitoring the climate changes, making predictions and advising farmers and policy makers on their findings. However, the land farmed for our own use to grow food, timber etc., is being taken away from Australian native species and you have a duty of care to them too, which can only be fulfilled by lowering the number of people actually dependant on the land in the long term. Urban sprawl from housing is also taking vital land for native wildlife and food growing capacity and should be kept in check.

Shelter is the other requirement you need to keep alive. This covers clothing and footwear as well as housing and safe places to work. As most of you know the vast majority of our clothing and footwear is currently imported from poorer countries. They can produce goods of comparable quality at low cost due to lower wages and poor working conditions. Again this situation could change i.e. Asia's requirement for our resources drops and consequently the value of the dollar drops and the effective price of imported products goes up. If this situation were to occur you could be forced to look to our local manufacturers to fill the gap, only to find they had all gone! Let's hope you don't lose all the skills needed to start up your clothing and footwear factories again.

In Australia, the statistics show, on average you are living in and still building larger houses than any other country in the world. Yet the public are told there is a housing shortage – who's kidding who? – Let the statisticians do a count of bedrooms and spare rooms which could be used as bedrooms, then compare it to the total population numbers and see which is the highest. No

you don't have a housing shortage just a misuse of your housing resources when compared with other countries.

A similar situation seems to occur in the workplace, the current office worker strives for a bigger office or work space despite technology reducing the size of computers, telephones and other items you need to do your job. Does efficiency and job satisfaction increase in proportion to your desk size?

With the low levels of local manufacturing there may be a shortage of factories but I am sure that many of the enormous warehouses, currently full of imported products, could be converted into factories if required. When transportation becomes a problem I can see a reduction in large shopping complexes in favour of more, smaller local shopping areas. However this may be offset by wealthy supermarkets and stores providing small, regular, local, electric powered buses to bring their customer to the complex. There is also likely to be a reduction in broad acre farming in favour of small, mixed crop farms.

Sustainable Population Growth

This is the last challenge and probably the one which is easiest to remedy.

Question – do you want a larger population in Australia?

If you believe that the human race is using up the worlds finite resources too quickly and / or you are going to be subjected to global warming; your answer should be NO.

If you don't intend to have any children, there may be two reasons for this decision: possibly you don't really care much about the future of the planet because you intend to live life to the full irrespective of the consequences and your answer will be DON'T CARE; – or else you may care deeply about the planet and its native flora and fauna and wish to preserve them into the future by making the sacrifice to give up having children of your own to lower the population, even though you like most people, want them dearly. You DO CARE.

If you believe that unsustainable population and economic growth is a not your problem, you intend to worship the almighty dollar and believe that greed is good; your answer would be YES.

Which path will you follow?

Recent polling indicates that 70% of Australians surveyed do not want an increase in population. This raises the question – why don't the politicians want to discuss the subject? I believe they truly think that all growth is sustainable in their short 3 or 4 year term of office and are happy to pass the problem onto the next generation of politicians. The other reason is they believe that keeping the rich big end of town happy is paramount for funding their political parties and therefore keeping their seats. Much of the big end of town exists on population growth – the more people equal more houses, more services, more product sales and more money for them. There are also religious and ethnic groups who believe a larger population is good, as long as it is for their particular group. These beliefs go back a long way to when their leaders wanted their group to be the largest and the most powerful. The easiest way to increase their numbers was through promoting bigger families. While this situation was alright a few hundred years ago (before the industrial

revolution) is it true today when the world population is going through the roof? I don't think so.

There are two ways the population of Australia can increase – children being born here and immigration from other countries. In this country of yours you have a choice on how many children you bring into the world and this is how it should be. However, each and every one of you has a responsibility to your future children (and the other Australian species that belong here too) and to leave them a country where they can live a happy, productive and fulfilling live. In other words, DON'T OVER POPULATE Australia.

Immigration is always in the news these days especially the illegal immigrants (boat people) escaping war torn countries to find a better life. However you rarely hear about the other illegal immigrants who fly in and overstay their visa requirements. Both of these groups are overshadowed by the large number of legal immigrants who are welcomed into Australia each year. They hardly rate a mention in the news. Australia also loses many people overseas, mainly professional, where they can use their skills to a greater extent. It is the Federal Governments responsibility to calculate the numbers of immigrants they let into the country. Do you think (both sides of politics) currently do a good job in this regard? I can only give them 3 out of 10!

How can you, the next generation, sort out this challenge and bring it to sensible conclusion? You may say that Australia has only an insignificant part of the world's population so why should you be concerned? The world's population is now about 7 billion and Australia's is only 22.7 million – I will let you work out the percentage. But hold on, this is only part of the story and you should be rated on your carbon footprint and the amount of the earth's resources you use. If you compare Australia with

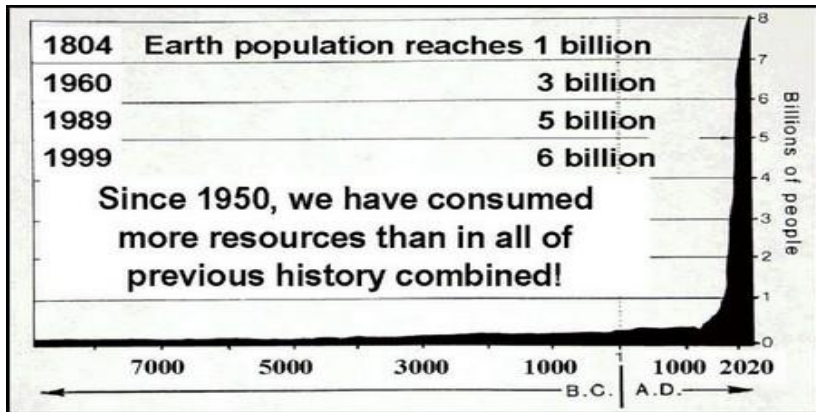
India for example – India’s footprint is 10 x less than Australia’s! So if you are judged in relation to India’s footprint our relative population footprint is 227 million – a significant increase.

Let’s stay with India and try to put yourselves in their shoes. What would you be thinking? I expect you would think that Australians are living in a land where there is plenty of food, water, cars and housing for everyone and they are all rich and have everything they want. They would also be thinking – why can’t we have the same life–style in India. Yes you are in a lucky country but would it be the same if Australia actually had a 227 million people living here – I don’t think so. Even if you use this revised calculation Australia’s population is still only 3% of the World’s population. Can you make a difference? “Yes you can” through teaching by example; however this will require some hard decisions to stabilise and even reduce your total population.

What are a few of the positive advantages of a stable or reduced population?

- Stable or lower pollution levels
- Stable or less resource depletion
- Less traffic congestion
- Lower land and house prices (using the supply and demand factor)
- Higher living standards, since you don’t have to continue to pay for more infrastructure, schools, hospitals etc., to support an increasing population.
- The chance to preserve biodiversity and natural habitats.
- Improving the chances for your children and grandchildren to have a better and more sustainable future.

I wasn't going to include any graphs, but just to show you what is happening to the World population I will include this one.



Human Population Explosion

I think you will agree that the world population growth is out of control. If this trend continues it will inevitably lead to mass starvation which could result in wars. I am sure you don't want to see this happen.

I should mention one thing - these over population challenges have been around for a long time but until 20 to 30 years ago they were rarely discussed and not even considered as being a problem. This being the case please don't blame your parents for having too many children.

Time Span

I have written about the problems, which I expect to occur - but when will they happen, I hear you say? Let's take them in order.

Resources and in particular Oil

It is widely believed that you have already reached peak oil; in about 2008 (*Peak oil* is the point in time when the maximum rate of global petroleum extraction is reached, after which the rate of production enters terminal decline). However this date is very hard to confirm as the oil industry (OPEC) is very secretive about oil reserves but seeing the depths they are drilling to and where they propose drilling (e.g. inside the Arctic Circle) does however give some indication. If the world oil consumption continues at its current rate I believe you will see shortages before 2030 – my guess. A good local website to learn more about this topic is www.crudeoilpeak.com. Gas, coal and uranium, the other resources for generating the power needed by such a large population, will be in short supply at a later date determined by a multitude of other factors. You must remember that global population is growing at a rate that will see it double in 70 years, so the rate at which you use up non-renewable resources is set to double also. Many of our other resources from the planet are recyclable and whether or not they run out in the foreseeable future largely depends on the availability of oil. Globally, renewable resources like forests, fish, fibre and food are now being used up faster than they can be replace themselves naturally, so should you be taking responsibility for the global picture as well? (*Look up 'Earth Overshoot Day' on the Web.*)

Global Warming

Well this one is easy – it's already happening and the question is not when but how fast? Most commentators and scientists believe it is happening a lot faster than they originally predicted. Of course as you have seen increased population won't help the situation at all. The solutions to global warming have to be global

and agreed on by all countries. Australia can play its part by example but the old saying "Nero Fiddled While Rome Burned" comes to mind. From what I gather from the radio and television news both sides of parliament spend an enormous amount of time on the estimated 0.0003% population increase from boat people – how about spending some time on the real issues which affect all of us? How about considering the contribution that you might make globally by helping to reduce population in a humane way? That would reduce the number of emitters of CO₂ and the total amount of emissions.

I note that the Northwest Passage has opened up again this year (2011) due to melting of the ice in the Arctic. This effect was first reported in 2007 and is another sign for those of you who are disbelievers in climate change.

<http://news.nationalgeographic.com/news/2007/09/070917-northwest-passage.html>..

Population Growth

This is a global problem and shows no sign of abating. All you can do is show that you can get Australia's population down to a sustainable level and aim to help other nations to live well and plan their own future, within their sustainable resource base. This can be achieved through partnership, example and assistance. On a lighter note, an organisation in the U.S., Population Media Centre, writes entertainment "soaps" (like 'Neighbours' on TV) for radio in developing countries and uses crises in the lives of the characters to get across locations of family planning facilities in the country and information on the services available. People love to follow their favourite characters and while listening, they pick up helpful information for their own situations. Check them out on their website: www.populationmedia.org

How can We Prepare for the predicted coming events?

Firstly we will take a look at the current situation in Australia.

Are we still the lucky country – yes we are, we have very low unemployment in comparison with other countries, there is no shortage of food and almost all of us have a roof over our heads. Of course there are always things that we can improve such as infrastructure, rail and roads, and on a personal level, the latest version of an electronic gadget or latest fashionable clothes. Our current standard of living is well within the top 10% of all the countries in the world.

Why is this and at what cost? Well, in the past it was the export of wool and primary produce such as grain and meat that kept our standard of living high. Today it is the export of energy in the form of coal, gas and uranium also minerals, and in particular iron ore. All this has led to a high Australian dollar relative to other countries currencies. This in turn has had the effect of making our locally produced manufactured products very expensive and non-competitive compared with equivalent products from overseas. A few examples;

Clothing and footwear – the majority of these products are now manufactured overseas – in the 1960's we made most of our own.

Steel, Oil and Aluminum – our steel works, refineries and foundries have been closing down over the last few years.

Food – just look at the supermarket shelves – our local industries are in decline and food growers going broke.

Personally I worked in the electronics industry, radios, televisions, computers, communications and test instruments. All gone and we now import almost everything electronic.

Note – Don't be confused by labeling such as "Made from local and imported ingredients" and what do we provide? - the produce, the tin or just the label. Even larger items such as cars should state "Assembled in Australia from some local and mainly imported parts" rather than "Made in Australia".

So what has all this reliance on imported products have to do with us and our future? Well if anything happens within those countries we rely on to supply us with goods and they suddenly stop exporting to us we will have a really large problem. We are quickly losing our traditional engineering skills base along with the infrastructure and machinery to make, build and repair things for ourselves. It will take a very long time, money and effort to build skills and infrastructure back up again.

Some of the warning signs;

- Another global financial crisis.
- Our dollar significantly decreasing due to our exports declining in value making imported goods very expensive and beyond our means to purchase.
- An increase in the cost and/or shortages, of fuel to transport goods around Australia and overseas.
- Internal pressures within those countries who supply the goods, due to an increased population or their own and their higher standard of living.
- The as yet unknown effects brought on by climate change – crop failures, ocean acidification etc.

So what will happen, when will it happen and how will it affect us?

Well logic tells us that sometime in the future the world will run out of Resources we need to maintain life at its current population level. However we don't know how quickly it will happen. I am betting it will be in either you or your children's lifetime.

Will the effects of Global Warming (Climate Change) be so great that it will diminish the ability of humans to live on this planet? Again we don't know the answer. It may all become clearer in coming years – hopefully the answer will not be too late in coming.

Will the world's human population continue to grow? Current information indicates it will – barring some sort of pandemic or other catastrophe. Of course logic again tells us increased population will decrease the time we have left before Resource Depletion and Global Warming (Climate Change) take effect.

So what can you – the Young Australian do to “Prepare Yourselves”?

This is where it gets hard, asking you all to get “Prepared” when I am not sure for what! Will we go down the path called “business as usual” and end up with mass starvation and possible conflict or will we implement policies to try and prevent a pending disaster?

The three most important things I believe should be done (by every country in the world) are:

- 1 Stop growth and consumerism and plan a regulated economic decline. Especially important in so called developed countries.
- 2 Each country must set limits of child birth to stabilize or even better reduce their population through birth control techniques. This is far better than having starving and dying children.
- 3 Collectively put all our remaining resources into becoming a clean energy and carbon free world i.e. reduce our man made CO2 levels.

Yes, but what about us individuals I hear you say? My answer is "Spread the word and influence people into what you think are the right measures to save the world".

What else – well learn basic skills you think will help you survive in a dramatically changed world?

Keep fit and gather some knowledge on first aid and basic hygiene. Drinking alcohol and smoking won't help.

Grow some of your own food in the back yard and learn to cook your own meals. It's better than takeaway food.

Spend your next holiday on a farm and help in the day to day work.

Spend some time away from the security and comforts of home i.e. bush camping with a group of friends. Scouts and Guides are a good place to start.

Plan to work in a trade or profession which you think could be useful in a changed world. Farming, food distribution, transportation, non carbon electric power generation - are a few that come to mind.

Make friends and form groups of like minded people. There are already groups forming around the world including Australia. "Transition" is one with a number of groups across Australia. "Resilience" is another (currently mainly in America). They all have websites which are easily found and they have plenty of tips to help you along the path for a happy and satisfying life.

Of course I have don't have all the answers for you and I could be wildly wrong in some of my assumptions and statements. However I go back to my original statement "**Be Prepared**" for the worst and if most of the scientists and me happen to be wrong you still haven't lost anything and might even be happier for the experience.

And the Wise Man said:

"Go forth into the World armed with contraceptive devices and the words of Sustainable Population and preach to all those who will listen. When you have done, rest and be rewarded that you have, in the goodness of time, reduced global warming and all without a Carbon Tax".

And Remember:

*Try and leave the world in a better state than when you joined it and at all times **BE PREPARED.***

Be Prepared Booklet – Update mid 2013

Life goes on as usual. We still have enough petrol for the car at a price we can afford – thanks to the high value of the dollar. The Polar ice continues to decrease along with many glaciers. Global average temperatures are still rising as are CO2 levels. World population (and Australia's which is now 23 million) keeps rising at unsustainable rate. Forests are still being logged and more animal species are becoming extinct. We are exploiting new sources of energy, most of which have some very serious environmental risks. We are now building more home units than houses – is this to pack the new immigrants in? Yes, we have had a few unusual weather events – larger storms and floods, more and hotter bushfires, a series of record breaking high temperatures but nothing we can't cope with. I note that the smog levels in China are getting worse – could this be because of all the coal we are selling them.

There seem to be a greater acknowledgement that climate change is taking place but no real signs from our State and Federal Governments apart from arguing about the carbon tax. I am wondering which countries government will be the first to admit that they are working on a plan to counter the climate change threat for the future wellbeing of your children and grandchildren.

Some of the **New Books** I have read during the past year on the topics of – Resource Depletion, Global Warming (Climate Change) and Unsustainable Population Growth are:

ENERGY – Overdevelopment and the Delusion of Endless Growth by The Post Carbon Institute – each topic has its own professional author. The introduction is by Richard Heinberg. This is a large coffee table book which has large pictures on the mining and production of the worlds sources of Energy. The text covers topics from “What is Energy” to “No Ecological Sustainability without Limits to Growth”. 300 pages long! **If I had my say, and sufficient money, I would make sure every Australian High School had at least one copy.** There is a smaller book (The Energy Reader) with text only which is available in paper or Kindle format.

THE CRASH COURSE – The Unstable Future of Our Economy. Energy and Environment – author Chris Martenson. There is also available on the Web (free of Charge) in a lecture format by the author. It’s about 3½ hour long but well worth viewing.

THE COMING FAMINE – The Global Food Crisis and What We Can Do to Avoid It – author Julian Cribb (Julian is an Australian science communicator). All you need to know about the future of food security, soil degradation and water shortages. Julian is a passionate writer and speaker on this topic and his book is well worth a read by older students.

THE GREAT DISRUPTION – How the Climate Crisis will Change Everything (for the better) – another Australian Author – Paul Gilding. Paul has a rather optimistic view of the future and I hope it will be proved the correct view.

THE CITIZEN – POWERED ENERGY HANDBOOK – Community Solutions to a Global Crisis and POWER FROM THE PEOPLE – How to Organize, Finance and Launch Local Energy Projects author for both books Greg Pahl.

While some of the books I have read have American authors and are aimed at the American and Canadian markets they are all relevant to us in Australia and countries worldwide.

This booklet is also available in downloadable format on –

<http://www.population.org.au/publications/resources/student-resources>

Or type “Be Prepared Booklet” into your Google Search Engine