

THOUGHTS ABOUT CURRENT ACTION IN THE AGE OF PEAK OIL AND CLIMATE CHANGE TRANSITION TO A POST CARBON FUTURE; THE TOTNES INITIATIVE

John Croft

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ABSTRACT: *Given the facts of climate change, peak oil, economic crisis and planetary extinction of biodiversity, we are faced with a choice. We can either wait for these crises to unfold, or else we can take action now that mitigate the crises, allow us to adapt to what is happening and cannot be avoided, and minimise suffering for those who will feel the effects in the future. The Transition Movement, spreading world-wide, shows us one way to build the future that works for all.*

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INTRODUCTION: THE CONTEXT

It is clear that over the last 40 years we have been mortgaging our future and things are getting worse. On many fronts the blind and the greedy are setting the agendas, and as a result our children's children could be living in a world where life threatens to be nasty, brutish and short.

Is your community a titanic, an accident looking for somewhere to happen? Is your life and the life of the community of which you are a part, like the driver of a car that is blindfolded, has his foot glued to the accelerator, cannot find the break and the steering wheel, and then wonders why life feels like they are about to hit a brick wall? Where are the controls in your life? In your community? How hard is it to turn the community around? Do you and others of the community shoot the messenger or listen to the message concerning local problems? Where have you come from, where are you going, what direction are you pointed in and how fast are you traveling? In the absence of answers to these questions, anything you do is like shuffling the deck chairs on the titanic as it powers towards the iceberg. It gives you and your group a warm and fuzzy feeling of "doing good" but it is ultimately just a waste of time and effort.

The destructive system of which we are all a part thrives on our ignorance of our own lives. Only once you are aware of these answers are you in a position to really begin taking control of your situation. Ignorance is what the system breeds and feeds upon. Encourage others to do the same. Encourage your friends, your family, your work colleagues and your neighbours.

THE TRANSITION TOWN INITIATIVE

In the period from March 2006 to March 2007 I had the chance to travel around the world on a teaching-learning-study tour of the planet, gathering information and ideas that could be shared with communities of social, political and environmental activists working to build a truly sustainable community where they live.

Late in 2006, I attended a gathering at the Gaia Foundation in London meeting my old friend Stephan Harding of Schumacher College and at the invitation of Stephan I travelled to Devon, and whilst there I learned of the Transition Town Totnes initiative, one of the most exciting initiatives I have seen anywhere in the world.

It was started by Rob Hopkins, an enthusiastic and committed permaculturist who had recently moved from Kinsale in Ireland, where he had started the idea of an "Energy Descent Plan" for a local community, as a way of addressing the vitally important issues of our times.

Totnes is a small town with a population of 8,000 located amongst a region of 40,000 on the River Dart in Devon. A result of Rob's unfailing commitment, and an effective team of coworkers he developed, it has become the UK's first Transition Town Initiative, that is, a community in a process of imagining and creating a future that addresses the three challenges of "Global Financial Crisis", "Peak Oil" and "Climate Change". Rather than seeing these problems just as enormous difficulties, and waiting for the problems to develop before we take action, Rob encourages us to see these as immense opportunities to really create the kind of community that people want for their future. Through proper design we can have low consumption lifestyles with a better quality of life than we now enjoy!

Joining Rob was a dedicated team of co-workers who were concerned about these issues and as a result organized a series of community film and discussion events in 2006. By 2006 we were using 86 million barrels of oil a day: that's an Olympic swimming pool of oil every 15 seconds. As we take this fossil fuel and pump it into the atmosphere, it is changing climates worldwide, creating a world wide economic system which funds limitless growth through issuing debt. "Peak Oil" is also called the "Hubbert Peak". It is the point at the maximum production of any oil resource (or indeed any non-renewable resource) is achieved, and it is named after Charles Hubbert, the oil geologist who in the 1950s predicted that the USA would reach such a peak in production in 1970, and would, thenceforth, rely increasingly upon oil imports. With oil prices in 2007 reaching beyond \$147 a barrel and since at the moment for each six barrels of oil used, only one additional barrel of oil is currently discovered, evidence is growing that we are at, near, or may even have passed the peak oil figure for the planet as a whole. But what is to be done about this especially since our communities are so dependent upon this resource for our transport, food production, industry and even our interior heating?

Coupled with the input problems of Peak Oil is the output problem of Climate Change. Climate Change has been shown by much scientific research to be the climatic response to human caused changes in the concentration of the greenhouse gases, Carbon Dioxide, Methane, Nitrous Oxide and CFC's in the atmosphere. It is warming our oceans, causing sea levels to rise and polar ice caps to melt. The 15 warmest years in recorded history have been the last 15, and continuing greenhouse gas emissions accentuates the problem. Mountain glaciers are melting, robbing major areas of their water supply, semi arid and Mediterranean regions are seeing rainfall levels decline, water rich areas are seeing massive historic level floods, and as the arctic becomes ice free so we are seeing extreme but short snow falls in the depth of the shrinking winter season in cool temperate regions.

This use of fossil fuels has created a third major problem which is currently affecting us. The ecological or Malthusian limits that limited the population and levels of consumption in pre-modern times, have been temporarily relaxed, and as a result we have had two hundred years of industrialisation in which to construct an economy based purely upon economic growth and expansion, stimulated by a financial economy based not upon economising, but by debt funding of ever increasing levels of consumption. This economic system is increasingly characterised by speculative bubbles, and by the polarisation of incomes between those who have access to the artificial wealth being generated, and those excluded from the global casino. Just considering the

amounts of money spent on international currency speculation daily, more than 3 trillion US dollars, this some exceeds one twentieth of the gross domestic economic product of all the countries of the world in a year. Effectively in this way we are buying and selling a planet every 20 days, or purchasing the equivalent in currency speculation of 18 planets every year! Such a system, productive of a Great Unravelling, cannot sustain itself much longer.

The films and discussions organised in the Totnes community raised awareness of these issues in Totnes to such an extent that in September of that year the official “unleashing of Transition Town Totnes” (TTT) occurred with a gathering of over 400 people, a total of 5% of the total local population in attendance.

Supported by the mayor and local council, TTT established a “World Café” based upon the principles of Open Space Technology to engage with any interested community members and explore the issues. This led to the creation of an initial 6 interest groups by February 2007.



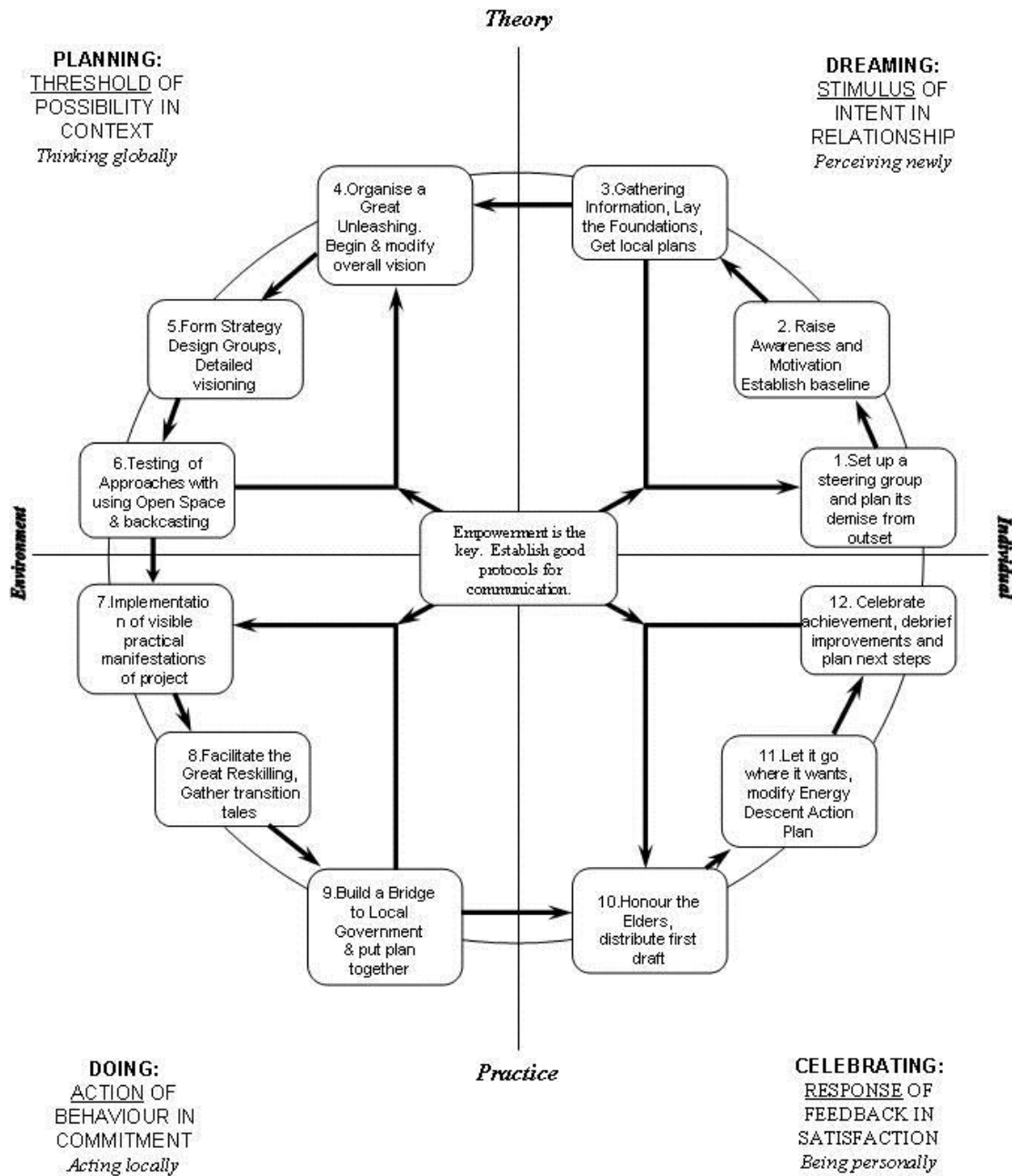
Totnes has made good use of its proximity to the Dartington Hall Trust, and especially to Schumacher College, one of Britain’s leading think-tanks and training institutions in the area of sustainability. Many gifted teachers and leading researchers come to this institution and TTT makes use of many of them at public meetings and training workshops for their members.

It was this way I was invited to work with Rob Hopkins and the TTT team, when I was teaching at Schumacher College at that time.

Rob was interested in the Dragon Dreaming workshops I run, on “How to make your dreams come true by running outrageously successful projects”. He was especially interested in the way we build Celebration into every activity, on how it was important for project groups to “plan their own demise” and the idea of a Project Support Project, that I had been using in Australia and the USA. He wanted TTT to function as a “project support project” supporting and stimulating even more ideas in the Totnes community.

Based upon his Totnes experience Bob in his later extremely popular “Transition Town Handbook” has distilled 12 steps for people to take. Modifying these within the Dragon Dreaming framework gives us the following.

DRAGON DREAMING PROCESS FOR TRANSITION TOWN INITIATIVES



#1. Set up a steering group and design its demise from the outset, so that it dissolves by stage 5, once it has set up about 4 sub-groups

#2. Awareness raising with your key allies, and newly built networks, on the importance of understanding potential effects of both Peak Oil, Economic Crisis and Climate Change

#3. Lay the foundations, incorporating existing initiatives in a non competitive, but supportive fashion, where your support can help catalyse their initiatives.

#4. Organise a Great Unleashing, which creates a celebratory memorable milestone for its “coming of age”. Make sure it includes food, music and launches the collective endeavour.

#5. Form sub groups to liberate the collective wisdom and genius already present in the community. Each subgroup aims at minimising its energy carbon footprint, that are the backbone of the Carbon Descent Plan.

#6. Use Open Space Technology, created by Harrison Owen and Tom Devane to capture what needs to be said and who says it. This harvests a huge collection of ideas and commitment from participants.

#7 Develop visible practical manifestations of the project as soon as possible from the start that will enhance people’s perceptions of this as a “can do” initiative. Getting such runs on the board is important to demonstrate the credibility of the projects.

#8. Facilitate the Great Reskilling – This is needed to reverse the “Great Deskilling” that has happened in the last 40 years, and helps build links between previous generations, for whom these skills were important. Finding fun ways of doing this helps.

#9 Build a bridge to Local Government – relocalisation will depend upon harnessing local resources, and local governments are central to this process. Local government involvement will give access to finances for activities.

#10 Honour the elders – these people have memories of what it was like in the previous transition from 1930 to 1960 and the age of cheap oil. Their memories are essential to allowing us to face the return to expensive oil. It builds connection.

#11 Let it go where it wants to go... Building community resilience requires a kind of flexible pig-headedness, where you keep focussed upon building a resilient community with a low carbon footprint but you are infinitely flexible as to how to get there

#12 Create an Energy Descent Plan – which enables you to move forward, as a whole community to where you wish to go. This too will help build local resilience and help shock proof your community for unpredictable climatic, economic or ecological effects. Details on one way to do this are below.

THE ENERGY DESCENT ACTION PLAN OR EDAP

Given this reality what is to be done? You are now ready to become truly effective in your community. Use what you know to get active using these seven things as guides to shape action.

- (a) **Build your local communities** – making them stronger, more inclusive of differences in lifestyle and culture, more self and environmentally aware, more caring and more economically, socially and politically effective in what they do.
- (b) **Cultivate simplicity by avoiding dependency upon complex systems** – these systems will collapse first and people dependent upon them will suffer most. What are the current vulnerabilities and how can they be ameliorated.
- (c) **Cultivate creativity on a truly massive scale.** Encourage social, economic, technological, political, environmental, artistic and cultural creativity in all guises, for all groups and individuals. Create creative opportunities..
- (d) **Look at how to preserve knowledge.** Local knowledge, and important social, technical, scientific and historical knowledge. Those who don't know the history of their communities are doomed to repeat it, again and again.
- (e) **Cultivate nonviolent wisdom.** In a dark age, such as we are entering, violent ignorance and different warring fundamentalisms proliferate. You cannot combat such evils with anything else but nonviolent wisdom. Encourage its spread to all.
- (f) **Encourage spiritual awareness** – our current problems were created by spiritual blindness to our world, our ecologies and each other. Create opportunities for ecumenical sharing across faiths and traditions, and cultivate your own.
- (g) **Build a financial and currency system that supports the other six.** At the moment our financial system encourages the opposite, it destroys community, increases complexity, reduces creativity, increases violence, suppresses wisdom, and ignores spiritual awareness.

Use the objectives of the Gaia Foundation groups to shape your action. All activity should be

- for the personal growth of those who are involved
- for building and strengthening the communities of which you are a part
- for the service of the Earth and the flourishing of all life.

Here is a list of six things to do personally and six things to do in your community with a group of supporters.

Start local. Look at your own life.

1. How much electricity do you use? A day? A week? A month? A year? Read your meterbox. Look at your powerbills. What is happening per unit of energy? Where does this electricity come from? A coal fired power station? Gas fired? Renewable? How much carbon dioxide and other gases are you personally responsible for? Inform yourself – sleuth out the information. Become a gad-fly of your power company. Ask interesting questions and provide yourself with the answers. Become an investigative reporter. What trends can you observe?
2. What number of miles do you travel? On foot? By bike? By car? By public transport? By plane? How much petrol do you use? A day? A week? A month? A year? What is your mileage in kilometers per litre? Where does this petrol come from? Question your local garage, and then follow up with their supplier, back to the refinery. Insist on answers. And as you burn this fuel, how much carbon dioxide does it contribute to the atmosphere? What trends do you observe?
3. How much water do you use? Read your water meter. How much do you use in a day? A week? A month? Check your waterbills. Know your local rainfall. What is happening to it – is it rising or falling over the long term trend? How much water catchment are you personally responsible for? How many acres of land provide you with your water use? Where does your water come from? Question your water authority? Where does your sewerage go? Where are the pipelines located that connect your source and your sink? What is changing here?
4. Where does your food come from? How far does it travel? What percentage of what you eat or drink is prepared by you personally? Is prepared by others? What percentage do you grow? Is raw food and unpackaged? What is per-prepared or pre-processed? What weight of packaging or rubbish does your food generate – in packaging, greenwaste or in follow up cleaning products? What percentage do you com compost? Re-use? Actively recycle? Bin and let the local government council collect? Where does it go? How far does it travel to get there? How much space does your waste occupy?
5. What is your current income? An hour? A day? A week? Month? Year? What are your current personal assets and resources? What is your current total expenditure? An hour? A day? Etc. What are your principle items of expenditure? Check it against the categories used by the Australian Bureau of Statistics in their individual and household expenditure

surveys. How does your expenditure compare with that of others in your city? In your state? Is your income or expenditure changing in any way?

6. How do you currently spend your time? How much time on paid work? On transport and travel time? Sleeping? Eating and preparing meals and cleaning up afterwards? How much real exercise do you get? How much time do you really spend with others who are important in your life – children, friends, lovers, parents, siblings? How much time do you give to your community in unpaid volunteer work? How much time do you give to the Earth for all the energy, water and food you use? How much time would you like to spend on these activities? How do you propose to change them?

Once you have done all of this research into your own life, document what you discover. Get support for your personal audit from local friends and others. If they express an interest, offer to help them with their information and what you have discovered. You could even offer to help them prepare their own ecological, social and financial audit. Once you have a number of people interested, who have done the same work and found out these answers for themselves you are now ready for the next step.

7. What is your bioregion? How many square kilometers is it? What are the different land uses in your bioregion? What percentage is roads? Buildings? Paved areas? Public gardens and playing fields? What percentage is public land? Privately owned? What percentage is left as natural bushland? Farming and food growing area? What percentage is left as wasteland? As water features (lakes, rivers, streams)? How is this currently changing?
8. What is the total human population of your bioregion? What ages? What is the gender balance? What is the percentage of the population in paid employment? Unemployed? What industries do they work in? What occupations? What is the average individual income? Average family income? Household income? How does it compare to you or your group? What is the average weekly household expenditure? Are people growing richer or poorer? What is their water consumption? Power consumption? Petrol consumption? The tax payments per person? Use these figures to calculate what is the total income of your bioregion, and their total expenditures on various items (power, rent and housing, transport, food and clothing etc). A lot of this information is available through the Australian Bureau of Statistics, but may need to be adapted for your bioregion. What population changes are occurring?
9. What are the natural soils of your bioregion? What area is available for each soil? How productive or fertile is each different kind of soil? What minerals or fertilizers are missing that would need to be added to make the soil more fertile? Where could these minerals and fertilizers come from? What kind of natural vegetation existed in your bioregion originally? Wetlands? Forest? Woodland? Scrubland? How much of each type survives? What is the underlying geology of your bioregion? Does it provide building stone? Brick or timber

building materials? What quantities of groundwater are available? Surface water? Runoff? Evaporation? Seasonality of rainfall? Length of growing season?

10. What is the Net Primary Productivity of the different land-uses of your local bioregional environment? The Net Primary Productivity is the amount of energy, and the amount of carbon sequestered by photosynthesis in your area. How many acres of land are required to absorb your personal carbon dioxide production each day, each month, each year? What percent is this of your bioregion? How many acres of land are required for your water? Your food? Now what is your personal ecological footprint? If all the people in your bioregion were like you, what is the total population your region could support on its own resources? To what degree is this less than or more than current population? What native plant and animal species are rare, endangered and threatened in your bioregion? How much "footprint" land do they currently have? Given that 10% of habitat survival means 50% of species become extinct – what percentage of species is your bioregion dooming to extinction?
11. What businesses exist in your bioregion? Retail businesses? Manufacturing? What kinds? Transport and communication? Utility companies? Construction companies? Finance and Public administration services? Media companies? Human service organizations? Recreation and tourism? What numbers of people do they employ and how much is their total turnover per annum? What is their total payed in wages and salaries? In tax? How many schools? Colleges? What are their total enrolments? How many hospitals? Clinics? How many beds? What other medical or education services are available? What business or social trends can you identify?
12. What community and voluntary service organizations exist? Churches? Professional associations? Parent and teacher organizations? Sporting clubs? Environmental associations? Landcare groups? Youth groups? Senior citizen associations? Organisations catering for people with special needs? Self-help groups? How many people are involved in each? What groups are conspicuously absent? How frequently do they meet? Where and how do they advertise their activities? What programs do they run? How successful are they?

When your group has gathered all of this information, document and report on it. How is it to be made available to your local community? To local decision makers? Local government? School children? Service and community organizations? How and where are you going to publicise what you have learned about the sustainability of your community? Where are its weaknesses? Where are its strengths? What changes are going to have to be made in order to take account of peak oil? Of global warming? Of climate change?

THE RESULTS OF TTT

As a result of their work the whole community of Totnes commenced work on their own “Energy Descent Action Plan” or EDAP. The central TTT Coordination Team, which acts as a “project support project”, has stimulated other groups working on specific areas, as the need arises. There were ten groups created as follows

- Building and Housing
- Economics and Livelihoods
- Education
- Energy
- Food
- Health and Wellbeing
- Heart and Soul
- Local Government
- The Arts
- Transport
- Administration and Support

Each group appointed one member to the Transition Town Totnes Coordination Team. This team provides the groups, advice, information, training and support, and acts as a central clearing-house for reports and common initiatives. The groups also provide support to new project initiatives, and assists individuals with making their ideas successful. For example, if a community member wished to organise a guided tour of local ecologically based housing initiatives and ecovillages in the area, they would seek support from the Building and Housing Group.

People with ideas are invited first to gather a team of support for their project, which then affiliates with one of the 10 theme groups.

Thus, for example, the Economics and Livelihood theme group has some six affiliated projects including:

1. Business Resources Exchange (Swapshop) where one business’s spare resources can be exchanged for another.
2. Energy Efficient Lighting Businesses, to encourage energy efficient lighting in the community street by street.
3. Green Energy for Businesses project – encouraging the uptake of renewable energies within the business community

4. Oil Vulnerability Audits – showing local businesses the extent of their vulnerability from oil prices and possible future shortages.
5. Resource Efficiency for Businesses – using the “Envirowise” scheme, looks at how to assist businesses use non-renewable resources more efficiently.
6. The Totnes Pound – a green currency that is now accepted as legal tender by 70 shops in the town.

The Food Group for instance has a seed and plant swap initiative to promote diversity of seed stock, a project encouraging the planting of nut trees, a good local food guide, a project that aims to source fish sustainably, and a project that encourages local food growing and allotments.

Each group encourages a number of sub-groups with specific interests. For example the Housing and Building Group has three subgroups; one focusing on a sustainable “Local Development Plan” to ensure sustainability principles are incorporated into all planning decisions at local level; an “eco-construction group” that is gathering skills and providing advice, information, training, support and materials for building in an oil shortage economy; and a co-housing group, for those people interested in a convivial housing option pioneered in the 1970s in Denmark, that has less reliance upon private cars.

An interesting innovation of the TTT is the Heart and Soul theme group, that argue that an energy descent can be coupled to a consciousness ascent.

The group makes effective use of Mind Mapping in all of its activities, such as the “Skilling Up for Power Down” a 10 week training course for interested local residents.

In June 2007, a day long event was held at Dartington Hall called 'Estates in Transition' which brought together local landowners to look at how peak oil and climate change might affect their management decisions and how they might better connect with their local Transition Initiatives. Each group reports back, using the internet, on the stage their project has reached, planned activities for the future and how people can get involved. Ideas for new projects are being incubated all the time. Thus initiatives for retrofitting houses to make them more energy efficient, through the Housing and Building group are seeking people who may be interested. Another initiative that is linked to the central TTT Coordination Team is the “Great Reskilling” identifying community skills from the past for relocalisation initiatives to be more successful.

A useful on-line calendar of events allows groups to advertise forthcoming initiatives. For the month of April 2008, for instance, some 14 TTT initiatives were advertised. By the end of 2008 there were some 20 projects that were organised, based upon individual initiatives to “make a difference” consistent with the overall goals of TTT.

CONCLUSION

From there the TTT initiative has now gone viral and initiatives are spreading fast around the world, and are now operating from the north to the south of Germany. Rob edits an international resource www.transitionculture.org, which asks “How might a transition to a really sustainable, low carbon, energy efficient culture look more like a party than a protest march?” There he provides resources that are useful for other communities that are interested in the Transition Towns initiative.

Bob has now written a very successful “Transition Handbook” for the many hundreds of communities around the world who want to learn from the work of Totnes. As the “Energiewende Das Handbuch” it is published now in German by Zweitausend eins. It has similarly been translated into many other languages too.

As Bob says at his website in answer to the question “Why Transition Culture?”

“We live at a fascinating point in history. The convergence of challenges, most particularly global warming and peak oil, have brought us to a point where we are profoundly challenged to act. We are surrounded by what poet Gary Snyder, in his classic poem “For the Children”, called “The rising hills, the slopes, of statistics” and by individuals telling us that this means the end, that we have gone too far, that it is inevitable that life as we know it will collapse catastrophically and very soon.

Yet, at the same time, something very powerful is stirring and is taking root the world over. People are choosing life and are manifesting that in their lives and their communities. People are starting to see peak oil as the Great Opportunity, the chance to build the world they always dreamt of. As one man said during a group discussion at the end of a screening of *The End of Suburbia* that I organised in Clonakilty, “we’ve just seen that the end of the Oil Age will bring about the collapse of industrial society ... bring it on!”. The scale of the challenge is huge, and the obstacles are plenty, but there is an emerging energy to succeed, a sense of quickening and an exhilaration in talking and listening to each other once again, to visioning what we want and then rolling up our sleeves and starting to co-create it. This is not a denial of the scale of the challenges we face, rather a practical and instinctual response to it. In towns and cities all over the world people are asking each other “what can we do about this?”

The Transition Towns initiative believes that through liberating our collective creativity we do have the abilities to make the transition to an energy constrained post-carbon world with a superior quality of life than that we now enjoy.