



SUSTAINABLE SKERRIES SUBMISSION

TO THE DRAFT NATIONAL RISK ASSESSMENT 2014

Sustainable Skerries is a Transition Town initiative, founded in 2009 by local people to work towards a sustainable and resilient community. We have been awarded the National first prize in the Comhar Sustainable Development Award. We founded a very successful allotment scheme with 220 allotments in 2012, we run one of the only Community Supported Agriculture (CSA) schemes in the country with over 25 local families participating since 2012, we have run several community projects in Skerries over the past 5 years which have had a very positive impact on the resilience of our community.

We are very happy to have the opportunity to make a contribution to this National Risk Assessment. We believe that this is a great opportunity to raise issues which we could as a nation sleep-walk into. One thing is certain “the future will look nothing like the past”, we must ensure that our citizens, present and future generations will be protected from the worst of any threats which may exist.

RISK: A Dramatic Increase in Cost and Eventual Halt in Crude Oil Supply

TIMESCALE: Medium Term (5 to 10 years)

KEY DATA: (2010)⁽¹⁾

Crude oil production: nil

Net crude oil imports: 60 kb/d (3 Mt), +0.3% compared to 2000

Oil products: refinery output 60 kb/d, imports 122 kb/d, exports 26.5 kb/d

Share of oil: 48% of TPES and 2% of electricity generation

Inland consumption: 158 kb/d (7.5 Mt): transport 55%, residential 18%, industry 13%, other sectors 14%

Consumption per capita: 1.5 t per capita (OECD average: 1.7)

SUMMARY OF RISK :

Oil remains the primary energy source in Ireland, representing 48% of the country's total primary energy supply (TPES). ⁽¹⁾ and 98% of our energy for all transport. It is also a source of primary materiel for the global petrochemical industry which supplies Ireland with Fertilisers, Pesticides and other Agri-Chemicals, Pharmaceuticals and all plastics. Irelands reliance on Oil as an energy source is one of the highest in Europe with only Greece and Luxembourg having a greater reliance.

The medium term risk to Ireland's supply of oil comes from a number of sources, firstly volatility in price as a result of instability in the middle east and other global hotspots such as the current tension existing in the Pacific region as China exerts pressure on its neighbors over territorial disputes. China and India are also purchasing oil futures in 2nd and 3rd world countries, some of which are still developing their oil industry. These include Sudan, Congo, Brazil, Angola and Kazakhstan.

Peak Oil: The International Energy Agency, of which Ireland was a founding member, in their World Energy Outlook 2010 concluded that global production of conventional oil likely reached its highest point in 2006. They then go on to say that the fall off in conventional oil supply will be compensated by the rise in Polar oil, Deep Water oil, Oil Shale and Tar sands. However even this total supply of Conventional mixed with Unconventional oil will peak well before 2035.

These figures do not take into account the rise in global population and the increased demand from high growth economies such as China and India which will bring forward the point of peak production.

In terms of a national risk analysis, the point at which a drop in oil supply, and a subsequent sharp rise in cost, which will have a negative impact on Ireland, will probably occur when the

large oil exporting countries such as Saudi Arabia, Kuwait, UAE, Iran and Venezuela which together make up over 52% of global oil exports, decide to restrict exports and hold their oil in the ground as a strategic reserve to mitigate any future risks they may perceive to their own national economy's. This tipping point is much more difficult to predict, and will most likely occur as a result of a perceived threat. It will have the greatest impact on countries with no native oil supply and no national agreements in place with an oil exporting country.

IMPACT OF A SUDDEN RISE IN OIL PRICE:

Oil is an intrinsic part of our modern economy and society. The impacts may seem obvious, but the effects of a **sudden** and **permanent** increase in oil price will cause:

- A dramatic contraction in our economy.
- An increase in **transport** costs, (98% of transport in Ireland is fuelled by oil)
- A massive rise in **food prices**, caused by a rise in international transport costs, on-farm energy costs, reduced farming yields and processing costs.
- A reduction in **farming yields** due to an increase in the costs of Agri-chemicals.
- Increased cost of pharmaceuticals and other petrochemical commodities such as plastics.
- Our population density is much less than the UK or Mainland Europe, we have a natural carrying capacity of more than 5 million people (Post-famine, pre oil-era population). So we may be perceived by neighboring countries as a source of food. Giving rise to an increased **national security threat** from other countries which will see Ireland as a source of food.
- An increase in global population, combined with an expected **decline in conventional crude oil supply** over the next 10 to 20 years will inevitably lead to a crash in food availability. Ireland is currently food secure, but in a world of declining oil supply, this security can no longer be assumed.

OIL PRICE RISE, RISK MITIGATION:

- 1) Generally, we need to increase our **Resilience** in energy supply terms.
- 2) Begin to reverse the trend to **Globalisation** by strengthening our **Local Economies** and keeping community capital within our community's.
- 3) To mitigate short term, transient threats, we should increase the quantity of strategic oil reserves held by the national oil stockholding agency **NORA**, and increasing the proportion of that oil stored physically within the state.
- 4) Reduce our dependence on **Transport** fuelled by oil by:

- a) Increasing the reach of the rail network and improving the rail-freight infrastructure. Encouraging the transport of containerized freight from the ports to multiple inland distribution points. So reducing our dependence on containerized transport by road.
 - b) Increase the electric car network infrastructure.
 - c) Give a road vehicle Tax advantage to shared car systems such as GoCar (<http://www.gocar.ie/>) and CarSharing.ie (<http://www.carsharing.ie/>).
 - d) Extend the very successful Dublin Bike Scheme to all large towns (over pop. 15,000) in the state.
 - e) Investigate the feasibility of an electric trolley-bus (<http://en.wikipedia.org/wiki/Trolleybus>) system in Dublin and regional towns. This is a low cost alternative to trams requiring a fraction of the infrastructure capital spend. There are currently over 300 trolley-bus systems in operation in 43 countries. This is an EU analysis of Trolley-Bus systems versus diesel bus systems, http://www.trolley-project.eu/fileadmin/user_upload/download/TROLLEY_WP4_Transport_Mode_Efficiency_Analysis_Bus_vs_Trolleybus.pdf . In a situation such as that discussed above with high oil prices, the breakeven point for a trolley-bus system becomes very favorable.
- 5) Encourage, by whatever means possible, ConocoPhillips to retain the oil refinery at **Whitegate**, Co Cork beyond 2016. This will give the state a greater degree of independence and flexibility in relation to crude oil distillation.
- 6) **Agriculture and Food:** Reduce the dependence of Irish farmers on imported **synthetic agricultural chemicals**, (Herbicides, Insecticides, Fungicides and Synthetic Fertilisers).
- a) Increase the support for **Organic small scale farming**.
 - b) Increase the support and encourage the establishment of small scale locally owned food systems which use local energy, labour and capital to grow and distribute food to their community. The **Community Supported Agriculture** (CSA) structure is an excellent way of bringing together small scale organic farmers to the local community. Sustainable Skerries has established one of these systems (<http://skerrieschg.wordpress.com/>).
 - c) Encourage the establishment of local **Allotments** and **Community Gardens**.
 - d) Small and medium scale farmers and food producers are very exposed to changes in terms and prices charged to large multiples such as Dunnes, Tesco's, Lidl, etc. There is an increase in the number of small farmers going out of business in the north county Dublin area due to this price pressure. The Oireachtas should introduce legislation to protect small and medium scale farmer's sales contracts with these multiples.
- 7) **Strategic alliances: Oil for Food.** Irelands 100% dependence on imported oil is an obviously serious weakness. However we have many strategic advantages. We have a low population density which is still very rural and closer to the land than most other EU countries.
- Population density: **Ireland:** 60 people/Sq km UK: 246/Sq km. Germany: 225/Sq km
France: 111/Sq km. Netherlands: 394/Sq km. **EU Average:** 112/Sq km.

We have the capability to be self sufficient in food production. However this is currently dependant on a regular, dependable Agri-chemical and oil supply.

Ireland should examine the possibility of establishing strategic alliances with countries which are oil exporters, but which are also food poor. i.e. they have a high population density with a low food growing capability.

In conclusion, we believe the risk and threats detailed above are a very likely to happen in the next 5 to 10 years. They may occur sooner, depending on global events. There is one certainty, the inevitable and permanent decline in crude oil supply will occur at some time in the future. This is a non-renewable resource.

It beholds us for the sake of future generations, to prepare for these events.

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(1) International Energy Agency, Ireland Review 2012.