

ECCE Building Certificate in Sustainable construction



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PARTNERS

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Coordinator:
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LECTURE n 7: One PLANET DEVELOPMENT IN WALES

General features
ONE PLANET DEVELOPMENT
POLICY (Naomi Hope)



A Pioneering Ecovillage
in West Wales

LECTURE 7 : one planet development

In this lecture you will learn about:

- 1. GENERAL FEATURES OF ONE PLANET DEVELOPMENT.**
- 2. INTRODUCTION TO THE ONE PLANET LIVING CONCEPT**
- 3. HOW THIS WELSH POLICY SUPPORTS ECO-BUILDING**

LECTURE 7 : one planet development policy

- 1- Mind map
- 2- Case study:
 - Pencedni One Planet Development
- 3- Workshop
- 4- Video
- 5- References
- 6- Evaluation



- 1 What is One Planet Development?**

What is this forward-thinking policy in Wales? What is the context of One Planet Development? How must applications for this framework be developed?
- 2 Case Study: Pencedni OPD**

Discover Pencedni, a smallholding being developed under the One Planet Development framework in West Wales.
- 3 Video and more information**

Meet some of the other One Planet Development sites, and access further information to learn more.

What is one planet development?

One Planet Development (OPD) is a forward thinking planning scheme in Wales. It stems from the Welsh government's sustainable development scheme called 'One Wales: One Planet' adopted in 2011.

This scheme aims to reduce the country's use of natural resources to a 'fair and equitable level'.

Under this scheme, a fair and equitable use of the world's natural resources is defined as 1.88 global hectares – that is the total global resource divided by the number of people on Earth.



Credit: Plas Helyg, Lammas Ecovillage

What is one planet development?

One Planet Development allows people to develop a sustainable land based lifestyle and build a house in Wales.

To do this, they must prove they will live a low impact lifestyle, using their fair share of the Earth's resources.

To be eligible, there are three broad areas which must be addressed by applicants to the scheme.



What are the c

The three main criteria are:

1. A household ecological footprint of 2.4 global hectares per capita, working towards an ecological footprint of 1.88 global hectares
2. Any buildings are zero carbon in construction and use
3. Households must meet their 'basic needs' through income generated from the land



www.SimonDale.net

What are the benefits?

The One Planet Council is an organisation supporting One Planet applicants and sharing inspiration about the scheme. They list 10 good reasons why OPD is so important:

**Sustainable Low
Impact Homes**

**Creating Sustainable
Livelihoods**

**Affordable
Housing**

**Increased Land
Productivity**

**Good for the Land
and Wildlife**

**Efficient Use of
Natural Resources**

**Sustainable
Transport**

**Measurable
(Ecological
footprinting)**

**Good for the Local
Community**

**Good for Wales and
the Planet**

Case study: pencedni, west wales

Martyn and Jacqui are developing their smallholding in West Wales under the One Planet Development policy.



Credit: Pencedni

Case study: pencedni, beginnings

What were your motivations when deciding to apply to the One Planet Development scheme?

Tom:

We had been looking for a property with land for a while. Our budget was seriously restricting our options and we had begun exploring other ideas. The policy sounded like it had real potential for us because our attraction to land in the first place was to get farming and start a small business. We wanted to stay in Wales having both grown up here and the opportunity to build a warm, dry, well-lit home was a bonus!



View of the site before work began
Credit: Pencedni

Case study: pencedni, ecological footprinting

How did the ecological footprint calculation – work for you? Were there any particular findings which meant you would have to make significant changes to your lifestyle?

Tom:

It's a blunt instrument. We dutifully filled it out and weren't surprised or really informed by the results. In my case at least, I have been living this "eco" way all my life, mostly by default rather than choice, and don't feel the need to make significant changes. Perhaps it would be more relevant to people from a different background.



Case study: pencedni, ecological footprint

One Planet Development Ecological Footprint Calculator

Conversion factors provided by SEI 

Current Per Capita Ecological Footprint gha

Estimated Per Capita Ecological Footprint on First Habitation gha

Year Three & Year Five review Per Capita Ecological Footprint gha

Future estimated Per Capita Ecological Footprint gha

Input ref Data entry sheet

* It is recommended you enter current household figures as a baseline to guide your e

	Existing Household Actual Figures Pre Application (not required on application)	Estimated Household Figures on First Habitation Required on Application	Use For Year Three & Year Five Review Actual Figures (not required on application)	Estimated Household Figures at Year Five Required on application
1 Number of people in Household	1	1	1	1
2 Household annual income	0 £ per year		0 £ per year	
ENERGY				
3 On Grid electricity	0 kWh	0 kWh	0 kWh	0
4 Off grid electricity: solar PV	0 kWh	0 kWh	0 kWh	0
5 Off grid electricity: wind turbine	0 kWh	0 kWh	0 kWh	0
6 Gas (includes bottled gas) - 1kg LPG = 12.77 kWh	0 kWh	0 kWh	0 kWh	0
7 Biomass - logs - 1 tonne (see notes) = 3869 kWh	0 kWh	0 kWh	0 kWh	0
8 Coal - 1 kg = 8.05 kWh	0 kWh	0 kWh	0 kWh	0

Screenshot from the Ecological Footprint Analysis spreadsheet

Case study: pencedni, eco-build

The eco-build. What have you decided to build, what materials have you used and why?

Tom:

We have built a **timber-framed** hempcrete house with a reclaimed slate roof. We wanted to build the best house we could afford and were careful that the design was in keeping with the local vernacular. We tried to choose quality natural materials with a view to a long lasting, high-performance home with low maintenance and running costs.



Credit: Pencedni

Case study: pencedni, eco-build

The eco-build. What have you decided to build, what materials have you used and why?

Tom:

Wherever possible we have sourced these materials second-hand and locally but in order to move things along and to achieve the standards we wanted we have also occasionally used conventional materials from the local builders yard or by mail order - for example we chose to use top quality composite windows. We are not purists.



Credit: Pencedni

Case study: pencedni, eco-build

The eco-build. What have you decided to build, what materials have you used and why?

Tom:

Our goal was to build a comfortable, durable house that other people could use after us. Friends, family and neighbours have been very involved with the build - for example my brother built the frame.



Credit: Pencedni

Case study: pencedni, income generation

What is your income generation plan, and how does it relate to the OPD policy?

Tom:

We have a lot going on here! We are trialling a small number of novel berry crops, namely Chilean Guava, Aronia, Elaeagnus, Saskatoon and Sea Buckthorn, for which we hope to develop a seasonal local market. We have planted a Walnut based silvopasture on our best land, which at the moment is grazed with Badger-faced Torwen sheep, but which may incorporate pigs or turkeys in the future.



Credit: Pencedni

Case study: Pencedni, income generation

What is your income generation plan and how does it relate to the OPD policy?

Tom:

One of our main threads is a nursery (plus advisory service) specialising in interesting plants for a more self-reliant landowner. Very little has been sold commercially yet as we are still very early on in the development and all of our focus is on the house build at the moment, but we are already establishing good links with nearby hotels, restaurants, health food outlets, artisan food producers etc. who are eager to work with us in the coming years. We are confident that all this will comfortably cover basic income as expected by the OPD criteria.



Credit: Pencedni

Case study: pencedni, other basic needs

How does your business plan cover the waste assimilation, energy and food criteria?

Tom:

Our waste assimilation will be a small constructed wetland. Most of our fuelwood will be from our Black Locust coppice, whilst we wait for that to mature we are using the wood generated by bringing our overstood hedgerows back under sustainable management after several decades of neglect. A kitchen garden will provide for a good amount of our food needs, we also plan to have poultry for eggs and meat and we are already eating the first batch of our own lamb.



Credit: Pencedni

Case study: pencedni,

the future for opd

How would you like to see OPD develop over the next 5-10 years?

Tom:

I would like to see OPD integrated into a more mainstream awareness. Ideally it would come to be viewed as an opportunity for young farmers with limited means to get a foothold on new land, or to continue living on their parent's farm for example. I hope to see more respectable, presentable and productive land use associated with OPD. Currently, a commonly encountered perspective is that OPD is a planning loophole for privileged 'hippy' incomers to buy up land on a whim, build a novelty house and drive up prices for the locals. I don't think it helps matters that a few high-profile developments, doing little to endear themselves to their wider farming community and often using land in a very unproductive manner, continue to be cited as examples of what can be achieved under the policy. I would like to see a shift away from this association as the policy evolves and attracts more attention from motivated people with a progressive outlook on agriculture and ecology.

One Planet Development,
**a film by Max Baring reproduced with
thanks to the Thomas Reuters Foundation.**



BIBLIOGRAPHY / FURTHER INFORMATION

One Planet Council:

<http://www.oneplanetcouncil.org.uk/>

One Planet Council 'Resources for Participants'
page:

<http://www.oneplanetcouncil.org.uk/planning-policy/>

One Planet Living framework:

<https://www.bioregional.com/oneplanetliving/>

Pencedni:

<https://www.facebook.com/Pencedni-1297422203664596/>

Lammas Ecovillage – the precursor to One Planet
Development:

<http://lammas.org.uk/en/welcome-to-lammas/>

MODULE EVALUATION:

- 1) Remember to participate in the online course forum.
- 2) Present a case study with pictures and descriptions.
- 3) Complete the multiple choice evaluation (10 questions with 3 possible answers).



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THANK YOU