

Steward Community Woodland

Needs Analysis

For years 2014 - 2015

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Introduction

1. It is obvious to me, living at Steward Community Woodland that we substantially meet our needs from the land and project based activities. This is because, although we do not generate a lot of financial income from site, we do not need a lot because of our subsistence income. We don't even produce most of our food on the land but the fact that our heating fuel, water and sewage, electricity and shelter needs are met almost exclusively from the project activities and the land, means that the vast majority of our needs are met here. This report attempts to show this by putting values on these needs and how we meet them.

Method

Basic needs

2. For the purpose of this report, basic needs comprise all the requirements for basic living, ie. **food, water supply and sewage, heating and cooking fuel, electricity, and shelter.**

Methods of calculation

3. I have assigned monetary values for all the basic needs we require. I have then estimated subsistence as a value in pounds. The values of the different needs are then added together to give a total value for our needs and a total value for our needs met by subsistence. A figure for our needs met from living and working on site is then calculated by adding subsistence to our financial income and taking that as a percentage against our total needs.

Food

4. The needs met from living on the land in the case of food are fairly straightforward to calculate. We can simply add up the total annual cost of the food purchased by the community, estimate the value of the food produced on site and calculate a percentage based on that.
5. In the case of food, 'subsistence' is the estimated value of the food produced on site and 'cash' is the value of the food we have purchased from outside sources.

Fuel, Water and Sewage, Electricity and Shelter

6. In order to estimate a monetary value for these needs met by subsistence, I have used national statistics to inform what we would be spending on them if we were living in conventional accommodation. I have then subtracted what we have spent in order to provide these services for ourselves.
7. For example: in 2014 the average UK household spent £11.50 on electricity per week. We have put infrastructure in place to generate the electricity we need from renewable sources costing £1.62 per week per household. If we lived in conventional housing, we would need to spend approximately £11.50 on electricity, but we supply it for £1.62. The difference, £9.88, is met by

subsistence, made possible by living on the land as we do. Therefore $\text{£}9.88/\text{£}11.50 \times 100 = 86\%$ of our needs for electricity are met by living on the land.

8. This seems like the fairest way to estimate the percentage of needs we meet from the land because it accounts for the fact that, due to the low impact way we are able to live on the land, our resource usage is far lower than most.
9. To calculate the amount we spend providing services such as electricity, water and sewage, and shelter I have gone through the Company Accounts and peoples personal spending and noted all the purchases for infrastructure needed to provide the service. In the case of communally purchased equipment, the yearly expenditure is represented by the annual depreciation expense plus other minor expenses. For personally bought items, I have divided the item value by the estimated lifespan and spread it out over the years after the item was purchased.
10. For example - an item costing $\text{£}1000$ with a 5 year lifespan would incur a cost of $\text{£}200$ for the 5 years of its life:

Year	2010	2011	2012	2013	2014	2015
Purchased equipment	1000					
Annual cost	200	200	200	200	200	

Table 1: Example method of depreciation calculation

11. Dates in the tables shown only go back as far as 2008 however the spreadsheet from which they were taken dates back to 2000 and the accumulated expenditure carries forward onto the tables used here. Please see our previous Needs Analysis 2003-2014 for the previous figures.
12. It can be seen from the tables that our yearly expenditure for these services has increased over the years as we have spent money improving infrastructure. This improvement of infrastructure has made systems more efficient, effective and/or convenient.

UK averages

13. UK average spending has been acquired from government statistics. Heating and cooking fuel (gas and other) and electricity, were taken directly from the 2014 statistics for the average UK household from www.ons.gov.uk ref: 005222. For shelter costs, I have taken UK national statistics for unfurnished rented property which includes rent, water rates, council tax and dwelling insurance, from www.ons.gov.uk ref: 005106.
14. It should also be noted that local accommodation is much more expensive than the national average.
15. National Average spend on heating fuel is $\text{£}14.50$ per week per household.
16. National Average spend on electricity is $\text{£}11.50$ per week per household.
17. National Average spend on Shelter including rent, water rates, council tax and dwelling insurance is $\text{£}142.50$ per week per household.

Calculations

Needs met by SCW for food

18. Food produced on site or from the land is broken down into produce grown communally, produce grown by individuals and meat produced by individuals. In order to estimate our overall food needs I also asked everyone on site to provide figures for the amount they spend on food over the years.

Name\Year	2014	2015
Food purchased	£18,560	£18,940
Communal growing	£2,100	£2,520
Personal growing	£250	£250
Game and Livestock	£1,968	£3,568
TOTAL from site	£4,318	£6,338
Total food needs	£22,878	£25,278
Percentage of our food needs met by the land	19%	25%

Table 2: Needs met by SCW for food

Needs met by SCW for shelter, water and sewage

19. This includes all of the money we have spent on building materials, plumbing and heating infrastructure spread out over the lifespans of the structure as described above.
20. Our shelter costs also includes the repayments of loanstock which was raised to purchase the land.
21. Because the national average figures include council tax, the council tax we pay is also included in our shelter costs.

Year	Lifespan	2008	2009	2010	2011	2012	2013	2014	2015
Building works									
Building costs	15	290.00	615.00	400.00	0.00	0.00	20.00	225.00	620.00
Yearly cost		19.33	41.00	26.67	0.00	0.00	1.33	15.00	41.33
Building costs	20	156.25	156.25	156.25	156.25	156.25	156.25	156.25	656.25
Yearly cost		7.81	7.81	7.81	7.81	7.81	7.81	7.81	32.81
Building costs	40	1245.00	205.00	0.00	0.00	0.00	0.00	2000.00	20.00
Yearly cost		31.13	5.13	0.00	0.00	0.00	0.00	50.00	0.50
Plumbing and heating costs	30	470.00	615.00	0.00	0.00	0.00	0.00	99.00	500.00
Yearly cost		15.67	20.50	0.00	0.00	0.00	0.00	3.30	16.67
Total cost per year		73.94	34.29	34.29	34.29	34.29	34.29	34.29	34.29
TOTAL accumulative annual cost of building works		316.10	350.39	384.68	418.97	453.26	487.55	521.84	556.13

Table 3: Cost of building works

Year	2014	2015
TOTAL accumulative annual cost of building works	521.84	556.13
Loanstock repayments	2000.00	2000.00
Yearly council tax	1406.73	1432.09
Yearly total spent on shelter by all households	£3,928.57	£3,988.22
National average (weekly)	£142.50	£142.50
No. households living at the woods	7	8
Yearly shelter needs for all households	£51,870.00	£59,280.00
Shelter needs provided by subsistence	£47,941.43	£55,291.78
Percent of our shelter needs met by the land	92.43%	93.27%

Table 4: Needs met by SCW for shelter, water and sewage

Needs met by SCW for heating fuel

22. Most of our fuels needs are met using wood from the land with a little gas being used for cooking. Our subsistence value is calculated by taking what we spend on fuel from the UK national average spending on fuel. The percentage of our needs met from the land is calculated by using the ratio of our subsistence and the national average spend.

Name\Year	2014	2015
Yearly fuel purchased by all households	£540	£570
National average (weekly)	£14.50	£14.50
No. households living at the woods	7	8
Yearly fuel needs for all households	£5,278.00	£6,032.00
Fuel needs provided by subsistence	£4,738.00	£5,462.00
Percent of our fuel needs met by the land	89.77%	90.55%

Table 5: Needs met by SCW for heating fuel

Needs met by SCW for electricity

23. This includes purchases of solar panels, hydro turbine and penstock, regulators, inverters, batteries and other minor expenses. The cost of these purchases has also been spread out over their lifespan as they depreciate in value.

Renewable energy

Year	Lifespan	2008	2009	2010	2011	2012	2013	2014	2015
Batteries and reclaimed equipment	5	150	0						
Yearly cost		30	0	0	0	0	0	0	0
Yearly write-off		-40	0	0	0	-30	-30	0	0
Hydro turbine	10	0	0	0	0	200	0	0	0
Yearly cost		0	0	0	0	20	0	0	0
Yearly write-off				0	0	0	0	0	0
Rolls batteries	15	1750	983	0	0	0	56	0	0
Yearly cost		117	66	0	0	0	4	0	0
Solar and Hydro penstock	25	4375	974	63	63	63	63	605	563
Yearly cost		175	39	3	3	3	3	24	23
Total cost per year		282	105	3	3	-8	-24	24	23
TOTAL accumulative annual cost of renewable energy		£486.65	£591.17	£593.67	£596.17	£588.67	£564.90	£589.08	£611.58

Table 6: Cost of renewable energy equipment

Year	2014	2015
cost of renewable energy	£589.08	£611.58
National average (weekly)	£11.50	£11.50
No. households living at the woods	7	8
Yearly electricity needs for all households	£4,186.00	£4,784.00
Electricity needs provided by subsistence	£3,596.92	£4,172.42
Percent of our electricity needs met by the land	85.93%	87.22%

Table 7: Needs met by SCW for electricity

Income generated from site

24. This income includes all money made on site as income to the community as a whole (obtained from our annual Accounts) and as income to individuals. It only includes money generated from activities related to the project such as courses, timber and craft sales. It does not include money earned off site or money generated on site not related to the project such as computer work. It does not include donations or grants. These figures are not the same as the profit or loss on the Company Accounts because they include personal income made from activities on the land.

Name\Year	2014	2015
Personal income	£5,165	£6,425
Communal income	£252	Not available
TOTAL	£5,417	£6,425

Table 8: Income generated on site

25. The communal income is very low for 2014 because few communal courses were run in that year due to us compiling our planning application. Accounts for 2015-2016 have not been completed so no data is available.

Other needs

26. I feel it worth mentioning that this report does not account for the social, emotional and spiritual human needs required for well being. Most of these are also met on-site within the community (but when it comes to social needs that doesn't mean we don't also enjoy local community events or the odd night at the pub!)

Summary

27. It can be seen from the figures within this document that the project provides sufficient livelihood for, and substantially meets the needs of residents on the site. This is mainly due to the subsistence nature of the project with very little financial income being necessary.

Food	£22,878	£25,278
Fuel	£5,278	£6,032
Electricity	£4,186	£4,784
Shelter, water and sewage	£51,870	£59,280
Total yearly needs for all households	£84,212	£95,374
Provided by subsistence		
Food	£4,318	£6,338
Fuel	£4,738	£5,462
Electricity	£3,597	£4,172
Shelter, water and sewage	£47,941	£55,292
Total provided by subsistence	£60,595	£71,264
Income generated on site	£5,417	£6,425
Subsistence and income generated towards our needs	£66,012	£77,689
Percentage of our total needs met by subsistence and income generated on site	78.4%	81.5%

Table 9: Overall percentage of our needs met by subsistence and income generated on site