### Does the Culture and Practice of Allotment Holding within Oxford help to build a Sustainable Local Economy?

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#### Abstract

An allotment is defined as a piece of land usually about 250m<sup>2</sup> in size, which can be rented from the council in order to grow fruit and vegetables for you and your family. The study examines the culture and practice of allotment holding in Oxford and to assess if this element of self-sufficiency could benefit the community and to what extent allotments can help to build a sustainable local economy. Furthermore the study looks at the inclusion of allotments into Agenda 21 and rates Oxford City allotments using the Governments Sustainable Development Indicators.

The research was based on ten face-to-face interviews with councillors and allotment holders as well as a survey of one hundred local plot holders. The findings from these interviews indicate that allotments within Oxford can be classified as sustainable when ranked against the Sustainable Development Indicators. Further to this, the study highlighted a new trend in allotment holding with a younger generation of people taking up the pastime.

Due to the small sample size these findings cannot be classed as representative of the whole of Oxford, consequently generalisations cannot be made. Never the less the study provides useful insights into allotment holding and its role within sustainable development.

Key Words: Oxford, Allotments, Convenience Sampling, Sustainable Development, Agenda 21, Self-Sufficiency.

#### Introduction

Allotments derive from the enclosure legislation of the 18<sup>th</sup> and 19<sup>th</sup> centuries. The word allotment comes from the process of 'allotting' land to people under the Enclosure Act (House of Commons, 1998). The most important Act was the General Enclosure Act of 1845 where land was given to the 'country poor'.

Act and Date	Relevance
Small holdings&	Consolidated all previous legislation and laid down basis for
Allotments Act 1908	all subsequent legislation. Placed duty on authorities to provide sufficient allotments according to demand.
Allotments Act 1922	Limited size to one quarter of an acre and specifies the growth of fruit and vegetables only. Protection given to tenants in form of notices and compensation.
Allotments Act 1925	Allotments have to be considered in town planning and cannot be converted to other purposes without Ministerial consent.

Allotments Act 1950	Improved compensation and tenancy rights but confined
	authorities obligations to allotments gardens only.

(Fig 1, Principal Allotments legislation (House of Commons, 1998,pg xiv)

Allotments reached their peak during the two World Wars. The famous WW2 slogan 'Dig for Victory' spurred food production from allotments alone to rise to 1,300,000 tonnes a year from just 1,400,000 plots, that's nearly a ton per plot! (Eynsham, 2007).

Nowadays allotments are run by local councils who have an obligation to provide land. There are currently 36 allotment associations within Oxford (Oxford City Council 2008), which gives rise to over 2,000 plots.

The term Sustainable Development (sustainability) was first outlined by Brundtland at the 'World Commission on Environmental Development in 1987, it states that "'Development should meet the needs of the present without compromising the ability of future generations to meet their own needs". This applies to allotments because they are used today to grow food, the nature of this food production in it self is sustainable as nutrients taken from the soil are replaced. This is a practice that has been sustainable since the 1900's and the House of Commons report said: "allotments have been sustainable for longer then the word sustainable has existed" (House of Commons, 2008 pg xxi)

The global economy which we have today is seen by many as unsustainable and the root cause of many of the worlds problems (Naess 1989). The modernization of food production for example has led to worries over issues such as air miles, GM Crops, and has made us question its sustainability. The UK is over 60% reliant on importing food (Friends of the Earth, 1979 pg 1) and the added transport costs adds an extra £4.05 a week to the average £20 weekly shop (Pretty *et al.* 2005 pg16). If food was sourced locally it would save an estimated £2119 million a year in travel costs which would have many environmental benefits such as less transport related pollution (Petty *et al.* 2005, pg16).

Local self-reliance is seen as key to a sustainable local economy (Douthwaite 1996), which includes producing as many basic products locally as possible to meet the needs of the local community (Goldsmith 1996). Food self-reliance can play a big part in this and allotments could be a way of getting urban dwellers into growing their own.

Paul Kingsnorth (2005 pg42) suggested back in 2005, that: "holding an allotment is an insurance policy against an uncertain future. The global economy which brings us our cheap food relies on non renewable oil and within our lifetimes this will cease", which is an interesting statement as we are currently seeing food prices soar as the price of oil increases, this is set to increase with the growing demand for oil. Growing your own might soon make economic sense as well environmental.

Recently Allotments have been accepted as part of Agenda 21\* with many local Council's funding vast improvements in the services they offer to allotment holders. Allotments are seen by the Government as a way of building communities which include all sexes, ages and nationalities, they also have many environmental benefits.

This report has been written in order to assess how successful allotments could be at aiding sustainable local economies and to assess how sustainable allotments already are. As discussed above, there has been some theory around the idea of allotments aiding communities but no definite research. This project has been undertaken in order to try and bridge that gap and to suggest further research.

#### <u>Method</u>

The research method used is qualitative as it suited the research question and enabled the study to obtain detailed answers. These observations helped generate ideas about wider social patterns. The research question was not a hypothesis; but an open question so therefore no statistical analysis was carried out, which is another reason for choosing a qualitative approach.

To help answer the research question five indicators of Sustainable Development, which were taken and adapted from the Governments National Sustainable Development Indicators (HM Government 2008). These were in place to ascertain if the allotments in Oxford are sustainable. The indicators chosen were:

- 1. How Organic is the site? Are fertilizers or pesticides used? A sustainable site will use organic methods.
- 2. Are the plots accessible to all classes, cultures and abilities?
- 3. Does the allotment help the tenants economically e.g. reduced food bills? And/or does it contribute to the local community?
- 4. Is there a social side to allotmenting, does it help build the concept of community?
- 5. Are the by products recycled?

These indicators were chosen because they reflect what sustainable allotments should contain, obviously there are many more which could be relevant but for the purpose of the study only a selection could be used.

In order to answer the research question, a series of ten face-to-face interviews with allotment holders and council members were held. The sampling method adopted was convenience, which is a non-probability based method (Bryman, 2004 pg100). An aspect of convenience sampling is judgment sampling, where the researcher uses his/her judgment to choose a reprehensive sample (Fowler, 1984).

<sup>\*</sup>Agenda 21: "is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System and Governments in every area in which humans impact on the environment" (UN 2004). The aim is to meets the needs of the present without compromising the ability of future generations to meet their own needs. Allotments were included into the UK's Local

Agenda 21 plan's in 1998 as they are seen as a sustainable leisure activity which have the added benefits of exercise, good food and community (House of Commons 1998).

The sample method best represents the method of sampling as plot holders were chosen from around Oxford. This method was used due to time restraints and the limited sample size.

A probability based sample such as simple random sampling would have been inappropriate due to the limited availability of participants.

Three of the interviewees were purposely chosen because of their positions within organizations however the remaining seven were chosen due to their geographical location within Oxford. The study spoke to people from all over Oxford, to try and get a representative view of Oxford as a whole.



Fig 2. A map of Oxford allotments with the seven highlighted sites which represent my interviewee's locations. (Oxford City Council, 2008)

The sample is not representative of the whole population of Oxford; however from the areas I have selected I hope this will provide a fair representation (above map). The size of the sample also limits the study but due to time restraints this was unavoidable. The small sample is enough to show social trends but not enough to form generalizations (Bryman 2004 pg101).

Semi structured interviews were held so specific questions could be asked but the conversation could still develop naturally which gave the researcher an opportunity to pursue topics of interest should they arise. This form of open questioning was chosen

over closed questioning so that the interviewee to answer in their own words, closed questions lose spontaneity and can annoy a respondent if there is not a category to suit them (Bryman, 2004 pg150).

In addition to the interviews a small survey of 100 local plot holders was also carried out. A questionnaire was designed but the researcher asked the questions, which meant no question could be missed out or misunderstood. Six allotment sites were chosen within 3km of Oxford Brookes University in South Oxford. Only two questions were asked: "why did you take up allotmenting" and their age range. Their gender was also noted. The sampling method was convenience, as the researcher couldn't be sure how many people would be on each site, so participants were randomly selected.

The standardized questions mean the measurement is more precise, as there was no change in the way the question was asked, another advantage is the cost, it is an inexpensive way to gain a lot of data.

One limitation is that the questions have no flexibility and that means generalization of the findings cannot occur. However due to the large sample size, it does point towards social trends.

The findings will be organised around sub-questions. These are laid out below and are in place, so that the main question can be answered:

### 1). Does an allotment culture exist in Oxford?

Primarily the study needed to find out if the practise of allotment holding is popular within Oxford, if this is not the case, the practice will not help to build a sustainable local economy.

# 2). What is sustainable development? What criteria would an allotment have to meet in order to be classified as sustainable? And do they meet it?

In order to claim that an allotment is sustainable and that it has the potential to help the local economy it must first be asked what they would need to do in order to be considered as sustainable. This question refers to the indicators laid out earlier. Allotments need to meet these indicators in order for them to be classified as sustainable.

## 3). What sort of people hold allotments and for what purposes?

It was important to find out who and why people hold allotments, firstly because it is needed to help answer the accessibility indicator and secondly because it gives us a profile of Oxford allotment holders. Allotments cannot help build a sustainable local economy if the plot holders don't follow the indicators and don't think sustainably.

## 4). Are there any schemes in place that involve allotments with the community?

Not only does the study examine the allotments own community spirit, it also looks at whether the effects can help the community at large. In order for allotments to help a sustainable local economy they have to contribute to it in some way.

# 5). Does the production of vegetables in this manner help to build a more self - sufficient economy?

In order to ascertain whether allotments are helping sustainable development we had to ask whether they help the plot holders become more self sufficient with regard to food. If allotment holders are using supermarkets less, this means others could do the same.

### 6). What environmental benefits do allotments have?

After thinking about what allotments provide for the community the study also looked at what other benefits allotments could have.

## Findings and Discussion

Results were obtained using semi structured interviews therefore statistical analysis could not be used. The findings have been organised around the sub-questions.

1). Is there an allotment culture in Oxford?

On many sites there were waiting lists for plots, which is a relatively new trend. In some cases sites have completely closed lists due to demand, this agrees with previous statistics which states that there are over 4,000 people on waiting lists in London alone (Bell 2007).

The Oxford Federation for Allotments has been set up and is helping turn around neglected sites so that the demand can be met. At the Barracks Lane site, Cowley, the current chair gives 'Allotments for Beginners' classes at the local school, which is heavily over subscribed, suggesting a keen local interest. This shows that there is an allotment culture in Oxford and that the practise is becoming more popular.

The Oxford Green Party said "allotments are getting more popular in Oxford; the density of allotments to each member of the population is quite high compared to the rest of the country".

Finally, the council has increased the budget to upgrade allotment services and by the end of 2008 hopes to of add a further 1,000 more plots to meet demand.

2). What sort of people hold allotments and for what purposes?

The major trend picked up from the interviews was that there has been a noticeable increase in the number of young families and women who take up plot holding.

Claire Wills from the National Society of Allotment and Leisure Gardeners provided the study with a table of plot holder ages. The survey was done in 1993 and was taken form across the UK, it shows that the largest age ranges were 65 and over. However she points out that this is over 10 years old and that society has noticed a change in their member types since this was produced.

Age group	65 and over	50 – 64	35 – 49	Under 35			
Percentage	35%	30%	29%	6%			

Fig 3. The age of allotments holders. (21)

From my own survey of 100 local plot holders, taken in 2007 from around Oxford, I found a different trend.

Age Group	65 and over	50-64	35-49	35 and under
Percentage	22%	28%	33%	17%

Fig 4, The age of allotment holders in Oxford in 2008

As you can see the 50-64 age range and the 35-49 age range do not differ that much but the under 35 category is much larger, by 11% and the over 65 category is much smaller than the official results by 13%. This is quite an interesting change in the trend in the last 10 years. We do have to take into account that the 1993 survey was taken from across the UK and Fig 4 was purely Oxford based which only provides us with information on a cross section of the allotment community.

Mrs S has noticed that women have overtaken men on her site by a ratio of 66:70. Others have mentioned the increase in female plot holders.



Fig 5) Survey results on gender .

From the findings, there is not a great difference between men and women on allotment sites, however, the stereotype of the retired gentleman is defiantly changing.

Mr G said that on one site there were 37 different nationalities working together and all sites asked noted an increase in different nationalities. With many renting sites so that they can grow food which isn't readily available in English supermarkets, for example one Indian man grows Okra which he uses for flavour in his curries.

Other reasons for holding sites were good exercise, a break from busy city life, a hobby, for quality food, for organic food, for a family activity and getting back to nature. The pie chart below summarises the findings on why people hold allotments.



Fig 6, Findings on why people hold plots.

Its hard to summarise the reasons for why people rent allotments as the answers given were as varied as the people who hold them. It seems that any person, of any nationality and any sex is welcome and that the reasons for holding a site are not black and white, but more layered. Nobody came for one reason alone.

3). What is sustainable development? What criteria would an allotment have to meet in order to be classified as sustainable? And do they meet it?

As explained previously sustainable development is development, which meets the needs of the present without compromising the ability of future generations to meet their own needs (Mayhew 2004, pg480). During the interviews questions around the chosen indicators were asked in order to ascertain if the allotments within Oxford were truly sustainable. The results for these indicators are laid out below.

## a). How Organic is the site? Are fertilizers or pesticides used?

Across the board everyone believed in organic methods (9/10 plot holders actively used organic methods) and a number of the interviewees mentioned that the younger plot holders are more organic. Mrs M put this down to older generations being brought up in

the post war era when high production was achieved by chemicals, which were very 'in vogue'. Mr T of Spragglesea Mead site said: "most allotment holders in Oxford are quite well educated and are aware of issues". This may explain the popularity of organic gardening in Oxford.

Being Organic is popular, as many people like to know how their food has been grown and any chemicals that they have been subjected to. GM crops are also of concern, so organic is one of the only ways of guaranteeing quality food.

Mr M from the Elder Stubbs charity has run an organic environment policy for many years and his site is seen as an example to follow. Mr P from the Oxford Green Party said "real progress means real food; food we can trust. We want a GM free Britain. So allotments fall into this category, as you can't get much more home grown and organic". The next step in organic allotment growing could be a certificated body that would check allotments for true organic practices the same as in agriculture.

### b). Are the plots accessible to all classes, cultures and abilities?

The Barracks Lane site has a refugee plot for recent migrants to feel active and part of the community. The Elder Stubbs Charity help people with mental illness and the long term unemployed and at Cricket Road Ms C has recently had the paths widened for disabled access.

Anyone can rent a plot; they are available to all classes, sexes and abilities.

#### c). Does the allotment help the tenants economically e.g. reduced food bills? And/or does it contribute to the local community at all?

It seems that holding an allotment can be a financial benefit for plot holders. All said that growing your own food was cheaper even when you factor in the time spent tending the site and the initial start up costs. Mrs M said she grows herbs which are fairly expensive to buy and that one packet of seeds costs about the same as one plant in a supermarket . Mr T said "you can grow things like asparagus in season and have lots of it and although it's not the biggest luxury it is quite expensive in shops". He goes on to say that he and his wife in a normal year would have no need to buy vegetables as they can pick fresh produce in season or have vegetables/fruits stored for future use.

Mrs S states that she has not purchased shop vegetables in 15 years and that her plot produces enough grape juice to last her the year. These are all signs that having a plot can help economically. Mr D also said that having an allotment saves on food bills and that for a pensioner this was important, this was echoed by Crouch in his 1989 paper.

Mr P of the Oxford Green Party suggests that "although there is an informal sharing on allotments that maybe the next step would be allotment markets – like farmers markets" this would obviously bring the benefits of allotments to the community more.

# d). Is there a social side to allotmenting; does it help build the concept of community?

All of the interviewees mentioned the social community element of allotment holding such as meeting new people and taking part in group events. Mr P said allotments are "a good vehicle for getting to know people" and smaller sites such as Barracks lane have truly embraced the community element of allotment holding by having a communal plot with benches and flowers and even a play area for children. Mr M said: "allotments can help build the social environment and teach people how to communicate again". This is aided by the councils Best Allotment Awards which, brings all of the Oxford sites together annually.

## e). Are the by-products recycled?

The trend seems to be that allotments were great places to re-use any unwanted items. Mrs M said: "most people have water butts, recycling water is cheap and the mains taps are an added expense, most people skip dive or use old materials for their sheds, and I am happy with that". Mrs S explains that her site receives the councils green waste for composting and they have deals with a few local companies such as two local tree surgeons. They bring her their extra bark, which people then use for paths etc. The allotments in Oxford often have mutually beneficial relationships with other local businesses and parks. The Elder Stubbs group compost everything even the scraps from the day centre come back up for recycling. 8 out of 10 plot holders have their own compost heap.

4). Are there any schemes in place that involve allotments with the community?

All sites I spoke to have some sort of school plot. Mrs S said that there will always be a plot available for the local primary school but from her experience they often find it too much hard work to maintain and she has started doing tours instead, in order that the children can learn without the hassle of running a plot. At the Barracks Lane site they had managed to run a successful primary school plot and in conjunction with a local group now run Forest School session from their woods. Mr X says: "it gives kids a chance to be kids, to play, to climb trees and to spot wildlife". Ms C has had success with a secondary school plot. "It's for children who don't like school, it gets them out of the class room but they can still learn, the art department are often down here, getting the children to do sketches".

The Elder Stubbs Charity takes an active part in the community. Along with their annual festival, which attracts around 2,000 people each year they also sell produce to locals through the RESTORE group. Also the 'Stepping Stone' project cultivate organic vegetables, which are then used in their day centre this feeds the homeless and unemployed.

At Mrs S' site there is a patient referral scheme with the local doctors, as allotmenting is seen as therapeutic for people with depression.

New plans for a community cafe in Headington could see Barton Fields become an even larger part of the community. Mrs M told me that the cafe aims to give people a second chance, teaching them retail, gardening and service skills. Part of this plan is for people to grow organic vegetables, which will be served in the cafe.

5). Does the production of vegetables in this manner help to build a more self-sufficient, sustainable local economy?

100% of the people I asked believed allotments could aid a sustainable local economy. Mrs S pointed out that there were no air miles involved and if you walked or cycled to your plot you would reduce car emissions.

Ms C felt that the trading of excess food amongst plot holders was like an informal LETS scheme, which she believes could become larger. Although she points out that no matter how much food we produce ourselves, we will still have to enter into the economy for certain things. Mrs M told me that the community cafe idea would be a non-profit organisation "so any profits would be ploughed back into the community as well as the allotment providing people with a sense of shared ownership". This would increase the local areas self-sufficiency.

Mr T believes that "at the moment not enough people have allotments but those who do have sites make them fairly sustainable". He and his wife rarely visit a supermarket and the surplus produce from his site is sold to locals to raise money for charity, so in turn they are helping the local area's sustainability by reducing their reliance on supermarkets. T also points out that the popularity of growing your own is on the rise and that the number of plots available is not enough. He feels that people will start growing vegetables in their back gardens again, as in WW2. He told me his son in law was currently doing this and he truly believes it is a way forward, especially if it was brought in as law, we could begin to see "real change, people would truly be more sustainable".

Mrs S believes that allotment holding "could be the only way within an urban environment that people could achieve sustainability".

6). What environmental benefits to plot holders believe allotments have?

Everyone I spoke to was in no doubt that allotments had numerous environmental benefits. Mrs M believes that the Barton Fields site acts as a buffer zone between the A40 and the estate, absorbing some of the noise and air pollution. It also acts as a shelter to wildlife.

All plot holders mentioned the wildlife allotments attract with people mentioning badgers, voles and buzzards to name but a few. Mrs S told me about some research she had read which suggested that the biodiversity on allotments is higher than that in parks and that it may also take over nature reserves "simply because it's worked land, not un- worked and with the latter you tend to get monocultures" this was echoed in my own research that suggested that the level of bio diversity within an allotment could be 30% higher than in a park (House of Commons Report 1998). Mr X pointed out that allotments were the "green lungs" of our cities and a step against development.

Allotments have the wider benefit of reducing food miles. Mr T said: "it may only be a small percentage of the population who have allotments but these people are buying less, reducing their carbon footprints by not buying things that have been driven or flown around". He also points out that allotments are far more environmentally friendly than farms. Mr P believes that allotments are even better then just buying British because it's even fresher and closer, so less petrol is used if at all.

## **Conclusion**

The culture and practice of allotment holding within Oxford can help build a sustainable local economy. My main findings, as discussed above are:

- There has been a noticeable increase in younger people taking up allotment holdings, mainly for environmental reasons e.g. reducing air miles.
- Oxford allotments meet all of the criteria for Sustainable Development (SD) and therefore can be considered sustainable. Oxford allotments met all the criteria that I specified and met with ease the government's indicators on SD.
- The production of vegetables in this manner not only benefits the plot holder but the environment and community at large. Allotments can help build sustainable local economies and as such have been included into Agenda 21.
- Allotments have a positive effect on the environment with them acting as 'green lungs' and wildlife havens.

At the current time, the only people really benefiting directly are plot holders. However there are over 2,000 plot holders in Oxford and the majority of these people share their excess produce with family, friends and locals. This means that 2,000 people are already on the way to self-sufficiency in food and by sharing excess produce with others, they are in turn helping others to be more independent. This is helping build a sustainable local economy but holding an allotment alone cannot make someone completely self-reliant. Schemes such as the community cafe would truly help the community to become more sustainable alongside a change in legislation regarding the selling of excess could see allotment markets or box schemes taking off. The introduction of allotments into Agenda 21 has brought growing your own produce and the benefits of it back into the public eye and I think we will see the popularity of allotment holding continue to grow.

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