

Machynlleth interim action plan in response to the declaration of a climate emergency

Comments in red are November 2022 updates on this July 2019 plan

Background

On 17th December 2018 Machynlleth became the first town in Wales to declare a climate emergency. Machynlleth town council passed this historic motion following a petition with hundreds of signatures from local people in response to the IPCC (Intergovernmental Panel on Climate Change) statement that governments had to take serious action within the next twelve (now eleven) years to prevent catastrophic changes in the climate. The town council agreed to launch a consultation to develop an action plan over the next 6 months to:

- make Machynlleth net-zero carbon as soon as possible;
- increase local resilience to climate impacts;
- maximise local benefits of these actions in other sectors such as health, agriculture, transport and the economy;

It also agreed to:

- Call on Wales and UK Government to provide the support and resources to make this possible;
- Work with other local areas, particularly the community councils and other partners in the Dyfi Biosphere;
- Report within six months with the actions the town can take to address this emergency, for example increasing the energy efficiency of the Plas, or working with the town's purchasing policy;
- Discuss with Renew Wales how they might support this process.

Summary of process so far

An open meeting in February led to the setting up of ten groups altogether: 1) a steering group to oversee the process, 2) an engagement group and the following topic groups 3) energy in buildings, 4) transport, 5) waste, 6) food, 7) biodiversity, 8) well-being, 9) planning & economic development, 10) energy supply

In the last 6 months there have been a total of more than 50 working group meetings, and an engagement presence at some local events. In June students at CAT conducted a 'systems analysis' of the consultation process so far to advise us on emerging priorities for action, i.e. the ones that have most leverage in the local community are likely to have most impact on reducing carbon emissions and increase well-being. The resulting report is well worth reading and can be provided for anyone who would like to read it.

We have done very little on quantifying the impact of actions or setting specific targets.

We aimed to make the process as transparent, open and well advertised as possible but this has been a challenge. We have communicated by email with the people who signed the original petition and those who came to the public meeting.

Some groups (waste and Energy in buildings) have attracted other people to specific public meetings but we have not managed to find a process that we could achieve easily that would mean that anyone in the community could see what was happening and how they could get involved.

There has been a lot of energy, enthusiasm, and work done in terms of forming groups, defining areas of interest, reaching out to stakeholders, and developing initial action plans.

In the main body of the report is a summary of each working group's activity and initial action plans. Lots of ideas have come out of all the groups but there is still plenty of work to do and the people involved are very happy to carry on. We also want to draw more people into the process.

Several working groups are still in the early stages of formation (planning/economic development, renewable energy, well-being).

We feel the next key step is to engage the whole community in giving their opinions on the ideas that have been put forward so far - what they feel they could benefit from, contribute to or would like to see happen.

Executive summary

There is a strong awareness within the groups that action needs to be taken by government at every level as well as by individuals. The groups have indicated which things could happen locally at no cost (but probably using volunteer time) and which things that need done by local or national government. Many of them will improve people's quality of life and build on the already strong sense of community. Some of them will save people money, some will create more local jobs and some will improve people's health. Some will depend on us raising money to make them happen. The only significant areas that are within the control of the town council are the Plas itself and its grounds. Beyond that, the role of the town council is mainly to show leadership, to lend encouragement to community action and to lend weight to lobbying other levels of government.

On going challenges are the need to widen engagement within the community and prioritise and coordinate actions that will have the most impact at moving towards net zero carbon as quickly as possible. The Steering Group welcomes the Council's suggestion to have regular joint meetings and would be pleased to hear the Council's response to this report and ideas about how to take it forward.

Group reports

We aimed for a standard format for group reports. This has worked for many, but some needed to adapt the format to suit their own process/function better. Extra information on working group activity appears in appendices.

Steering group

As the steering group's purpose is to oversee the whole process it has not produced an action plan. See appendix 5 for a description of its role and approach.

Engagement group

The purpose of the group is broadly:

- 1) to initiate engagement, i.e. to raise awareness of the facts and risks of Climate Change, and invite people's involvement in responding to it
- 2) to anticipate disengagement i.e. to consider the reasons why people might ignore, reject or criticise attempts at raising awareness and to think about ways of opening/improving dialogue
- 3) to help facilitate any engagement projects/programmes the other sub-groups within the Machynlleth Climate Emergency group may run

What the engagement group has discussed	What the group has done	What we intend to do next	Resources needed
How we might reach out to the varied parts of the Machynlleth and Dyfi Biosphere community, including the school and the farming and Welsh-speaking communities		Draw a wider range of people into the group	
How to ensure everyone in Machynlleth knows that this process is happening and that they can get involved	Brief flier (bookmark) produced that can be distributed to all homes in Machynlleth. Distribution happening	Also distribute on market stall	
Holding a large public event	Planning	Event in Plas hall (late Sept or later) with stalls for each group, advice for people on what they can do and questionnaire Advertise via posters, social media, Cambrian News, Blewyn Glas	Funding Volunteers from the groups
How we can engage people through shops etc.	Brief flier (bookmark) produced that can be distributed via shops etc This happened	Distribute to shops etc	
Finding opportunities to go out to talk at various existing groups/clubs	Talk at Corris Pensioners group Booked to go to Merched y Wawr	Approached U3A	
Engaging young people via the school	There has been a brief introduction to one year group. Offer to go into the school to do workshops in lessons	Run sessions in school if possible	

How we can engage people through local print media – weekly diary event in Up Your Street, Cambrian News and County Times, Blewyn Glas	An article in Blewyn Glas May 2019 A brief piece in the Cambrian News 29.5.19	Social Media?	
How we can engage people at events such as festivals (Comedy, El Sueno, Repair and Share)	Started making list of events we could have a presence at Production of a large map of the town to use as a focus for discussion of people’s ideas and to gather those ideas. Aerial photo bought ‘Postcard’ also produced to get feedback from people. Use of the map at the Climate Fair on 20.4.19, stall on Sat morning of Comedy Festival, Repair & Share fair 19.5.19, the Big Lunch Workshop on local action at climate summit at CAT Presentation at Dyfi Biosphere AGM	The Carnival Family fun day at Bryn y Gog	
Setting up system of ‘coaching’ for individuals who want to reduce their household carbon emissions	Want to find out if people would want this	Questionnaire	translation
Setting up groups of people to work together to reduce their carbon emissions, (similar to Carbon Conversations?)	Want to find out if people would want this	Questionnaire	
Putting folders of information in the Plas and the library and possibly more public places	This has not happened in the way that was planned. Groups have been extremely busy and it was decided that putting all the actual minutes wouldn’t be useful. Groups were asked for summaries for public folders and website a few weeks ago but very few have produced anything complete.		

Setting up an online communications tool to log and communicate what's going on	A tool has been outlined but not yet developed; to be discussed further.		
Putting info on the Town Council website [L] [SEP]	Agreement to use a page on the town council website.	This interim report will be put on the website and then we intend to put updates on there.	Translation
Getting an email address to use just for the climate action process and how to organise responses	Email address set up machynllethclimate@gmail.com hinsawddmachynlleth@gmail.com		
Doing a questionnaire for people [L] [SEP]	Draft started		
Using media	Radio interviews on Taro Post and Country Focus TV: Countryfile programme	Social Media?	
Discussed why people ignore, reject and criticise a climate emergency and how we might respond			
Have regular meetings with the Machynlleth town councillors		Set up set up quasi-regular meetings with Town Council for presentation and discussion about what each group is doing from September onwards	
Gain advice on engagement	Had workshop with the CAT students	Ask PIRC whether/how they can help	
		Create links with local community councils; once we have e.g. concrete proposals for joint lobbying of higher levels of government, we propose to approach other local community councils and ask whether they would be willing to get involved	

Transport Group

A. Mission statement

In order to reduce our reliance on fossil fuels, reduce pollution and improve health and wellbeing the changes we would like to see are:

- Improved safety and provision for people walking and cycling
- Better accessibility to and the integration of public transport
- To work towards 'futureproofing' the Machynlleth area by installing electric vehicle charge points and shared vehicle/community transport

The group will create an action plan to work towards these goals through a consultation process and adopt or develop a means of measuring progress towards these goals.

B. Brief summary of meetings and discussions held by the Group

- 3 group meetings
- Meeting with CAMAD to talk about community transport
- Meeting with Lloyds Coaches to discuss challenges, routes, integration of bus/train etc.
- Started to collate information on funding available etc
- Participation in LEADER-funded Low Carbon Transport in Powys project led by Open Newtown

	Objective <i>(What are we seeking to achieve)</i>	Action <i>(What activity/means we propose to reach our objective)</i>	Who can do it e.g. Machynlleth Town Council, other authorities, local people/businesses Put Lead in bold	Resources needed	Timescale (if known) or Next steps	How big a difference would this make?
1	Increase electric vehicle use	Get electric car charging points in town Charging points now in main car park	UK Gov, WG, PCC have funding; Some private funding or sites possible; LEADER project led by Open Newtown with Machynlleth Car Club ;	Funding to pay for charging points	Project just starting, led by Open Newtown to investigate setting up electric car clubs in Montgomeryshire towns	Significant reduction in fossil fuel use possible, including helping visitors come by electric car

			MTC could provide space		'TripTo' Electric car club established with second car already acquired	
2	Increase use of trains and buses	Produce ACTIVE TRAVEL GUIDE – promoting existing travel infrastructure including cycling & walking	MTC? Ecodyfi?	Funding for production, perhaps from Dyfi Community Energy Fund Bid in to lottery for this, from ecodyfi	Assess costs and design options and whether an app version is needed	Would raise awareness of options and encourage use
3	Increase use of car sharing/lift sharing	Set up communication systems to make sharing easy or promote liftshare.com	Anyone?	Someone's time		Socially useful as well as reducing environmental impact
4	Get safe routes for children to cycle, particularly to new school campus from top of town	Explore possible safe route; 20 mph speed limit through town	Highways, PCC	Design study Funding for minor infrastructure	Talk to Powys CC about active travel planning Ecodyfi / Coed Lleol project Trywydd Iach working on this	Encourage cycling from young age to promote zero carbon travel and healthy lifestyle.
5	Increase cycling	Maintain existing cycle paths; Improvement of cycling safety on routes to and from Machynlleth: Pennal; Corris;	Sustrans, PCC	Planning permission and funding for cycle paths Engagement to promote cycling Ecodyfi / Coed Lleol	Talk to Powys CC about active travel planning	In other countries has resulted in a significant reduction in car use. Safe cycle routes encourage residents to leave the car at home

		Machynlleth to Aberystwyth		project Trywydd Iach working on this		for short journeys. Visible cycle paths 'normalise' active travel as cheapest, healthy travel option.
6	improve access to town from Railway Station		PCC?	Pre-design options under consideration by PCC		
7	Re establish Rail freight					

See appendix 6 for Further information

Energy in Buildings Group

Mission statement

Energy used in buildings accounts for roughly one third of the annual UK energy consumption. Heating these spaces accounts for approximately one half of that energy consumption. Therefore one in six units of the energy used in the UK goes towards heating our buildings. Homes in the Powys, Ceredigion and Gwynedd are among the top ten worst performing in England and Wales.

Raising awareness and understanding with households, professionals and authorities of the issue of energy consumption within our homes can help to create warm and healthy homes without excessively high energy costs. This could also help to alleviate fuel poverty and is vital if we are to tackle the larger challenge of climate change.

Alongside this, we aim to make changes to the buildings of Machynlleth with an empowered and knowledgeable residence and workforce.

C. Brief summary of meetings and discussions held by the Group

The Energy in Buildings group has 10 active members. We have met every three weeks on average during this initial period with between 4 and 8 attendees.

During this period we have researched Machynlleth's housing stock in terms of current levels of energy efficiency. We have also had conversations with members of Powys County Council and Powys Council Housing Office to understand their roles, intentions and restrictions of their building stock. The group hosted a 'Trade Meet-up' (7 non-group attendees) where we presented the Climate Emergency, outlined the current housing stock in Machynlleth and discussed how local trades people could act and the boundaries to large scale home energy

improvements.

	Objective	Action	Who can do it	Resources needed	Timescale (if known) or Next steps	How big a difference would this make?
1	Raise awareness of the issue	Promotional leaflet, information desk, facilitated meetings.	Volunteers, local authorities, schools and local businesses. Ecodyfi's 'Energy Champion' talks to groups about saving energy & money	Funding for printing; time; use national information services as a resource	6 months	Large potential, requires owners/tenants and authorities to act.
2	Educate and develop a skilled local work force	Continue to develop a network of local businesses through the Trade Meet-ups. Support new local business ventures.			Ongoing	
3	Green Energy Supplier	Promote switching to a 'green' energy supplier for electricity and gas	Home owners/tenants, local and national energy suppliers	Promotional leaflet, information desk	Ongoing	Large - this would see a significant decrease in the emissions related to heating our homes and support a transition to a local/national 'green' energy grid.
4	Home Energy Assessments	Offer a (free) home assessment service that looks at the small-	Local businesses, volunteers	To offer a free service, funding would be required.	Ongoing	

		medium-large changes that a household to do to improve the energy performance of the building, reduce damp		Some have happened on a small scale through ecodyfi projects		
5	First step Improvements (simple, low cost)	Examples: draft proofing service, changing light bulbs, thermostatic radiator valves etc.	Local businesses, volunteers, DIY'ers.	Promotional leaflet, house visits,	Ongoing	Small – but important – improvements to individual homes energy demand and how they feel for the occupants.
6	Second Step Improvements – further reduction in energy demand (limited changes to building fabric)	Improvements to how the home is heated and hot water generated in the home, for example, by updating gas boilers to more efficient models, switching to heat pumps, installing solar heating and PV, installing thermal stores.	Empowered home owners, local businesses.	Home owner self-funded. Regional, national grants/funding model.	Ongoing	Large
7	Individual home retrofit (large scale improvements)	Holistic revamp of houses with the aim of drastically reducing the energy demand and improve healthy living conditions.	Empowered home owners, local businesses	Home owners to fund self. Grants/funding model. Planning implications.	Ongoing	Large improvements to individual homes.
8	Mass home retrofit of local authority owned homes and	A series of houses are addressed with the aim of drastically reducing	Local authorities	Local authorities.	Ongoing	Large improvements to individual homes.

	other buildings	the energy demand and improving healthy living conditions.				
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See Appendix 1 for Further information & Notes on specific Action Points in the table

Energy Supply Group (formerly Renewable Energy, which is a narrower description)

Mission statement

We aim to make the area a net zero emitter of greenhouse gasses in electricity and heat much earlier than Wales as a whole, as an exemplar community for others to learn from. We aim to maximise the local benefits of this change by increasing local control of energy sources and energy management, keeping more of our energy spend and related jobs locally, increasing our resilience and security of supply, and creating opportunities to manage consumption in a greener way.

We will do this by:

- a. Encouraging increased use and generation of renewable electricity and heat, making the best use of available resources and technologies including energy storage and smart management technologies;
- b. Encouraging awareness and behaviour change in energy use;
- c. Linking with the other groups to create integrated solutions, especially with Transport, Energy in buildings and Food.

We recognise that:

- 1. “The area” needs to be wider than Machynlleth town in order to develop an effective plan, although the group has no mandate from the surrounding Community Councils;
- 2. More work needs to be done before a target date for net zero emissions can be agreed with any confidence, including quantifying energy consumption and considering land and habitat (which is outside the scope of this group).

Brief summary of meetings and discussions held by the Group

This document is based on discussions at the action planning meeting of all groups held on 13th July 2019. It has been amended through email discussion. An energy supply group will be established over the summer to guide its further development as part of wider community consultations.

	Objective	Action	Who can do it	Resources needed	Timescale (if known) or Next steps	How big a difference would this make?
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1	Increase use and generation of renewable energy	Carry out a local resource and opportunities assessment	Working group; Ecodyfi with Welsh Government Energy Service	Volunteer/agency time	Group meet in early August	medium
2	Increase use and generation of renewable energy	Identify projects for available grants and support	Working group	Volunteer time	Group meet in early August	Unknown, depends on the projects identified
3	Increase use and generation of renewable energy	Invest in new energy projects (local or otherwise) Feasibility study done for PVs on Y Plas	MTC; enterprises; individuals	Opportunities and capital	Talk to Town Council about long term income	medium
4	Increase use and generation of renewable energy	Explore feasibility of solar canopies for electric vehicle charging in car parks	Working group	Volunteer time	Group meet in early August	High profile demonstration of integrating energy and transport solutions
5	Increase use (and generation) of renewable energy	Establish Energy Local Club(s) for local use of renewable electricity Energy Local Machynlleth now established	Ecodyfi and volunteers	Time, some of which is paid through Community Energy Wales	Autumn 2019	low
6	Encourage awareness and behaviour change	Ensure green switching information is included in local information	Steering Group?	Volunteer time	Summer 2019	low

7	Encourage awareness and behaviour change	MTC switch to green electricity tariff Options being researched	MTC	May be more expensive	Contract end date	Demonstrative value
8	Minimise carbon emissions	Assess baseline consumption and generation in the area	Specialist study. CAT MSc student?	Money and time	Ask CAT	Essential to have a target to work to
9	Improve energy efficiency in community buildings	Community buildings opportunities and energy reports	Sustainable Communities Wales project through ecodyfi	None (already available) Several delivered in collaboration with Severn Wye Energy Agency e.g. Rugby Club, Owain Glyndwr Inst.	Ongoing	Medium. Demonstrative value <i>This action overlaps with Energy in buildings group</i>

See Appendix 7 for further information

Planning & economic development Group

A. Mission statement

To ensure that all new build (housing and other) will be as low energy to run as possible, using passive solar principles and, where appropriate, low impact materials and renewable energy.

Intending that new housing will be cheaper to live in, more comfortable and healthier.

To support individuals making low impact planning applications.

B. Brief summary of meetings and discussions held by the Group

This group has only had one meeting because the convenor has been away and the group were aware that MTC had contacted the Powys planners.

We did not deal with the issue of economic development and think that we should set up a group to look specifically at that.

	Objective	Action	Who can do it	Resources needed	Timescale (if known) or Next steps	How big a difference would this make?
1	Influence planning policy for developments in the town to ensure that they are as energy efficient as possible.	Engage with the PCC planners	MTC has already contacted the PCC planners re the latest housing development explaining what we (MTC) expect of new housing.	Time to look at the LDP as it relates to Machynlleth	Look at the LDP. Do a Place planning exercise, probably as part of general community planning process.	Very big difference for the people who occupy new housing
2	Engage with local developers, architects and builders	Some conversation with architect and indirectly with builder re engagement				
3	Encourage support for local businesses					

See appendix 2 for Guidelines already accepted by MTC in January 2019

Wellbeing Group

Mission statement

Overarching values:

1. Our wellbeing ultimately depends upon the wellbeing of the whole natural world, of which we are a part.
2. Wellbeing involves all aspects of our lives, including our physical health, mental happiness, social connection, work and leisure time, nature connection, and our sense of meaning and purpose.
3. Low carbon transition has the potential to bring many co-benefits that enhance our wellbeing, for example through more active lifestyles, clean air, better diets and protecting & enjoying our beautiful, natural environment in and around Machynlleth.
4. Climate change affects us all and action will involve us all, although those with the least resources may also be hit the hardest. Machynlleth is appreciated for its rich sense of community and responding to climate change gives us an opportunity to come together, like never before, across our local communities, enhancing our sense of connection with each other, building our resilience and community spirit. To reduce the risk of unequal burdens of change in our community it is important that actions are collaborative, inclusive, democratic and encourage our local economy, with support for those with fewer resources.

Our aims:

1. Our aims are to raise awareness of the benefits of a low carbon Machynlleth on our well-being in our community.
2. We support actions and projects that enhance low carbon well-being such as healthy transport, healthy diet, opportunities to use outside space for health and wellbeing, improved access to low-carbon healthcare in and beyond conventional medicine, and projects that support social cohesion and mutual support. This includes collaboration with other working groups, and potentially lobbying for local infrastructure change.
3. We see personal, emotional and social/community resilience as key to help us meet the challenges ahead and aim to advocate and support projects that encourage this.

Brief summary of meetings and discussions held by the Group

Our wellbeing working group formed very recently in June and has met once so far on 1st July. We explored our understanding of what wellbeing is and looked at how well Machynlleth and the local area increases our wellbeing and what reduces it. We then visioned a future in 7 years time when we have become a low carbon community with well-being at its heart. This brought out overlaps between wellbeing and transport, and access to walking/cycling/running routes, local food production and food availability. Areas more specific to well-being emerged around intergenerational and family connections, connections between different sections of our community, openness to understand each other with different ways of knowing and living, access to a wider spectrum of (low carbon) health and wellbeing approaches in and beyond conventional medicine, and community tools for emotional resilience.

	Objective	Action	Who can do it	Resources needed	Timescale (if known) or Next steps	How big a difference would this make?
1	Community engagement: a) To understand more of what matters to our wider Machynlleth community in terms of wellbeing, b) to raise awareness about the links between climate change and wellbeing, c) to consult on ideas for how people of Machynlleth want to improve wellbeing in a low carbon future with	a) Further wellbeing working group meeting to clarify next steps – how to engage more widely, which groups, who will do it. b) Liaison with the engagement group to look at methods and message	Wellbeing working group, and through other community groups we are part of.	Room to meet (Machynlleth town council room would be ideal) , flipchart pad and pens and post it notes	Working group meeting soon, by end of September, latest.	Potentially high impact on community engagement e.g. on the upcoming Public Consultation which will follow on from this report, as wellbeing is a subject that most people care about and takes us beyond the usual circles of people concerned about climate change and environment.

	climate challenges ahead.					
2	To clarify other specific projects the working group would like to take forward.	Further working group meeting	Wellbeing working group	A room to meet in and meeting materials as above.	As above.	Depends on project.

The new Hospital complex is committed to providing well being facilities.

Food Group

The Food Group has held/hosted 20 meetings/events in order to gather responses, collect information, research relevant case studies and consult specialists and local organic food producers in relation to scaling up Locally Produced Regenerative Food & Drink production for Machynlleth – population 2500 - and hopefully the Dyfi Valley – Population 13,500.

Ambitions and initiatives in principle have been identified by the group and relevant funding bodies, land owners and keystone people/organisations contacted – The Group’s ambition and enthusiasm is high with access to the appropriate skills and experience to address the above challenge.

The Challenge

75% of UK’s Fruit & Vegetables are Imported - 85% of Welsh Lamb is exported. (DEFRA 2016)

An unbalanced, high carbon & ecological footprint food system highly vulnerable to future UK & overseas crop failures, changes in trading agreements & extreme weather events.

Insects like bees, flies, butterflies and beetles which pollinate 70-90 % of the world’s fruits and other vegetables have suffered a 40% decline in the last 10 years. Without insects, bees (Biodiversity & Ecosystems) & healthy soil we cannot grow food.

The UK is 30 to 40 years away from “the fundamental eradication of soil fertility” due to current industrial farming methods and chemical use that destroy & lose healthy soil. (UK Minister for the Environment)

Crops worldwide are already failing. Without a stable climate and weather pattern crops will become increasingly more difficult to grow and their supporting eco systems will collapse due to loss of habitat.

We are in a state of climate & ecosystem emergency and must act to secure a food future for Machynlleth & the Dyfi Valley.

Mission statement of the group

'Developing a resilient food system so that every individual in the Valley has access to healthy, local, regenerative food - as a right, not a privilege.'

Action plan

We haven't as a group been able yet to complete the template but we would like to emphasise 5 key actions.

- 1) Machynlleth Town Council to commit to regenerative agricultural practices on council owned land. Timescale - immediate.
- 2) The Food group to further investigate ideas brought by speakers so far, and how these ideas apply to the Dyfi Valley. Ongoing.
- 3) Further speakers/meetings to be arranged. Ongoing within the next 6 months.
- 4) Engage with the local community as to how we can implement these possible changes. Ongoing, within the next 6 months.
- 5) Work with the MCE group and MTC to lobby County Councils, The Welsh government and Westminster to implement policies which would enable our mission statement to be fulfilled.

All of the above except 1) at no cost.

All together making a massive difference!

See Appendix 3 for Food Group data collection and consultations – Feb – July 2019

'Tyfu Dyfi' project underway till June 2023, aiming to increase people's involvement in growing food and in expanding local food production through agroecological methods

Biodiversity Group

Mission statement:

Biodiversity includes all the species, plants and animals, habitats and wildlife that live in our landscape and seas. The loss of wildlife and habitats across the country and within Wales is at a critical level, and we must protect and restore our biodiversity for species survival, for human welfare, and for resilience to climate change. Biodiversity is vital for providing us with food and water, for our mental health and wellbeing, and plays an integral role in regulating our climate: taking in carbon dioxide and reducing flood risk for example.

As the biodiversity group, our aims for Machynlleth and the surrounding landscape are to...

1. Protect and restore wildlife and habitats in our local area
2. To connect people with our local environment and raise awareness of the importance of protecting it for future generations
3. To build on current work already being done by schools, community groups, environmental organisations, land managers and any other engaged parties
4. To work closely with all the other climate emergency working groups to nurture common goals and opportunities for collaboration

What we've been up to:

Meetings have been held twice a month with attendance between 4 and 8. Actions include a litter pick on the banks of the lower Dyfi which collected and sorted 2 tons of rubbish, and a group walk through the town mapping possible locations for placing swift nest boxes - St. Peter's Church are the likely first place of install.

The group has also planned a meeting with the food group and town council to look at the use of chemicals and weed killers around town.

	Objectives	Actions	Who can do it	Resources needed	Timescale next steps	How big a difference would this make?
1	Protecting and restoring wildlife habitats in and around Machynlleth	<p>Develop a biodiversity award for local schools/businesses/landowners/households (e.g. 'Climate Emergency Biodiversity Aware')</p> <p>Encourage local schools to develop pollinator and wildlife friendly areas and provide them with the support to do so</p> <p>Running 'make it matter days' and workshops in town to target habitat creation for specific species:</p> <ul style="list-style-type: none"> - Bird boxes - made and installed in suitable nesting sites e.g. for swifts/swallows etc. Over 100 Swift boxes have been installed on buildings in the Dyfi valley and this continues - Holes / gaps in fences - creating corridors between gardens for hedgehogs - Wildflower patches in gardens and verges for pollinators - Pond/bog creation in gardens and on private & council land (eg atop the Graig) for aquatic species <p>Creating a sand martin and kingfisher nesting bank near the Dyfi bridge to counter the impact of fluctuating river levels devastating nest sites</p>	<p>Machynlleth Town Council</p> <p>Local individuals with expertise</p> <p>Gerddi Bro Dyfi</p> <p>Ecodyfi</p> <p>Coed Cadw</p> <p>Coed Cymru</p> <p>RSPB</p> <p>Centre for Alternative Technology</p> <p>Women's Institute</p> <p>Extinction Rebellion</p>	<p>Develop a 'Biodiversity Fund' to enable specific projects that locals/businesses/schools can apply for</p> <p>Utilising existing resources from Friends of the Earth, Buglife, Plantlife, RSPB etc.</p>		<p>Varying scale - mostly small actions but collectively could have big impacts (e.g. 30/40 houses installing swift boxes)</p> <p>Engagement of local people would be greatly increased</p>
2	Engaging local people and raising awareness about local	<p>Running a series of public walks & talks to raise awareness and build support, e.g. around common land and other areas with expert guidance</p> <p>Meet people where they are: have a presence at market or town events where we can talk to people about local</p>			FoE	<p>Potentially large impact if a sense of local pride in the town's</p>

	biodiversity and how it relates to climate change	<p>issues and wildlife</p> <p>Produce information sheets about how wildlife is being impacted by climate change, and what you can do about it</p> <p>Producing information posters and signs through sign-making events, e.g. for areas of ‘messy’ strips left to go wild (communicating that this is good).</p> <p>Information to support swift box installation and ‘bee friendly Mach’ signs etc.</p> <p>Engaging people with Citizen Science events and wildlife recording apps, for example promoting RSPB Big Garden Birdwatch, running training events for using wildlife recording apps like Birdtrack etc.</p>				wildlife is achieved, protecting species and habitats Most land in Machynlleth owned by town residents, so impact to collective space could be large
3	Developing Machynlleth as a ‘bee-friendly’ pollinator town	<p>Increasing pollinator habitats, e.g. planting wildflowers around town on verges and in gardens etc.</p> <p>Reviewing mowing and spraying regime for Plas grounds and other public areas (council estates, road verges, etc.) No spraying done and large areas left unmown in Plas grounds.</p> <p>Provide information on wildlife/ pollinator friendly gardening ideas for household owners & gardeners</p> <p>‘Set-aside’ zones around football pitches, school grounds, etc that are maintained for biodiversity.</p> <p>Placing a restriction on the use of pesticides in and around town by gardeners and council</p>	<p>Town Council</p> <p>Schools</p> <p>Household owners</p> <p>Businesses</p>	<p>Very little - much is already out there to be used e.g. FoE pollinator action plan</p> <p>Pesticide Action Network UK (PAN)</p>		Very high for increasing pollinator species and wildflower diversity, and big impact on mental health (seeing butterflies and similar insect species)
4	Increasing tree cover in town and on common land nearby,	<p>Identify suitable areas for planting native broadleaf and fruiting (pollinator-friendly) trees</p> <p>Run tree planting days in and around town with local people and schools</p> <p>Tree seed gathering walks to gather seed for a community</p>	<p>Guidance from Coed Cymru and Coed Cadw</p> <p>Local</p>	<p>- Supporting pollinators</p> <p>- Habitats</p> <p>- Climate change</p>		Medium - not as much potential space for developing

	especially pollinator/fruit species	tree nursery Developing stronger connections between Machynlleth and existing woodland areas close by for social/wellbeing activities and communal use (e.g. near Bro Gerddi Dyfi) Register Machynlleth Town Council as a 'tree charter' with the Woodland Trust to access support and resources for tree planting work	people/schools for planting & seed gathering	resilience - (Provide local free food)		woodland in Machynlleth, but provision of habitat and cleaner air delivers many benefits
5	Work collaboratively with other local initiatives and Climate Emergency working groups for maximum impact	Building on the work of Gerddi Bro Dyfi to highlight the work and space already existing for people and wildlife in Machynlleth Provide information leaflets about wildlife watching sites accessible from Machynlleth on the flood plain/forests/gardens close by Work closely with the food group to look at maximising biodiversity benefits from gardening/farming local schemes Work with waste group to highlight impacts of plastic pollution and importance of recycling/reuse and litter picks Working with wellbeing group to run joint events and develop spaces used for mental wellbeing and spending time in nature	Machynlleth Town Council Gerddi Bro Dyfi			

Waste Group

Mission statement

- **Reducing waste** is the priority, followed by re-use. We want to be an example to other towns and stress the energy, materials, water and pollution implications of wasting stuff. This means cutting down what is produced in the first place
- Inevitably we will have to **lobby** Powys County Council about services, but our focus will be on
- **raising awareness** of the need for change and explaining to people what recycling systems exist and how they should be used to avoid contamination, together with

- exploring what **additional/alternative infrastructure** we can put in place locally that makes it easier for people (including business owners) to make climate-friendly choices.
- Litter picks have educative value especially if the litter is classified and lessons drawn.

Brief summary of meetings and discussions held by the Group:

The Group has met 4 times. It has 12 people on its membership list but meetings are smaller than this.

Charlotte Mann from the Coop was a guest speaker in one meeting. She described what they do with their own waste, the things that they are doing to cut down unnecessary packaging, reduction in '3 for 2' type offers, increase in smaller size offers and what the challenges are to reducing further. She also talked about their work with British growers to extend season of 'local' food available.

In addition, the Group organised a public meeting with James Thompson, Senior Waste Awareness and Enforcement Officer for Powys CC, who described what Powys do with their waste and where it ends up. He also answered questions from the public.

We had a brief conversation with Dyfi Wholefoods about the challenge to doing more refills and to Top Shop about their innovative packaging.

Litter pick along the river. The collection was analysed. Suggested producing visual of typical week/ month/ lifetime's waste.

Summary of existing activity to deal with waste locally could be produced and circulated, e.g. Swapshop , toothpaste tubes, reusable bag making .

	Objective	Action	Who can do it	Resources needed	Timescale or Next steps	How big a difference would this make?
1	Reduce use of one-use plastic in things bought in cafes & shops	Talk to retailers about doing more refills and reducing wrapping; possible space for refills in IG Owen. Encourage people to choose low-wrap options	Retailers COOP Shoppers Dyfi Wholefoods doing some refills	Volunteers More markets More home grown Organic e.g. If all Coop fruit and veg. were organic there would be no need for discriminating packaging.		Small, but more important to reduce use in the first place than recycle
2	Reduce plastic film going into black bags	Set up thin film plastic collection/skip for recycling	PCC? The Co-op – now collecting thin film plastic for recycling	Setting up a system	Difficult as there is no market for it	Tiny – challenge to wildlife/biodiversity rather than climate change, but lack of recycling annoys people

3	Encourage use of local independent shops where packaging can be minimised.	A campaign; Incentives?	Shoppers	Publicity Set up competition		Small
4	Develop more local composting, particularly for garden waste	Compost Friends scheme where specialists would go around promoting and advising on home composting	Individuals; Mach Maethlon? Gerddi Bro Ddyfi Gardens? Ecodyfi?	Space and some funding Project for local composting now in development through Tyfu Dyfi	Short	Fairly small
5	Reduce need for water in plastic bottles	Increase places where people can refill a water bottle for free; Get a public water fountain so that it is accessible 24 hours.	Cafes e.g. Ty Medi, Save the Children, etc. Plas café filling bottles MTC to get water fountain?	Funding to install fountain Coastal path website, map etc		Fairly small in carbon terms
6	Reduce volume of waste in public bins	Recycling (separation bins) in main streets	PCC?	Bins from PCC (they have some to test?) Money back can machine.		Fairly small in carbon terms; Good for visitors and during festivals in town.
7	Find a way to deal with bulky waste other than collection from houses	Phoenix Craft	PCC Young People Community	Pre-recycling Dismantling Expand repair cafe		Fairly small in carbon terms Big convenience benefit to householders Learn to appreciate the work that goes into creation.

8	Ensure business waste is dealt with efficiently	Discuss issues with the businesses	Mr Hennigan has made climate friendly changes and engaged with improving conditions for businesses	Volunteers to conduct interviews and research		Large
9	Shift culture & practice from throw-away to mend-it.	Promote Repair Café and Repair & Share Fairs Now happening regularly	Ecodyfi; Town Councillors Sabrina and John	More volunteers might allow increased frequency		Varies according to the embodied energy in the items given a new lease of life.
10	Set up tool library and investigate feasibility of a Maker Space	Liaise with Llanidloes Seek storage space and work shop	Swapshop The Maker Space group runs pop-up events and is looking for premises			Could be significant due to the embodied energy in lots of tools/equipment (metals in particular)
	Farm bale wrap – not a town issue					

See Appendix 4 for Further information:

Conclusion

As we can see from the working group reports a large amount of work has been done with enormous enthusiasm and interest from the people who have joined the working groups and from the wider community who have been contacted through outreach interviews and engagement. Broad objectives have been outlined in each of the working group topic areas, and lots of specific actions have been proposed. Many are at a community level (local reduce waste initiatives, bee friendly/pollinator spaces, building on local food growing economy initiatives), some require assistance from outside the community, (eg grants/funding for renewable energy schemes, building/housing energy efficiency improvements) some require lobbying others who are responsible for those areas, (eg increased safe cycling and walking routes, and in building regulations). Specific areas for town council attention have been highlighted including improving energy efficiency of the Plas and discussing existing and future regenerative council land management.

The CAT student systems analysis encouraged us to think carefully about which actions will shift our culture to net zero rather than prolong the current high-carbon systems. The mind-set within which actions are framed is significant and local business economies and our unique community spirit are important cultural features that could support positive change. Safety for active travel and availability of locally grown food are key concerns within our community and motivators for low carbon change. Multi-solving brings greater effects for less cost. E.g. focusing on safety for active travel could leverage in money from funds for increased health and wellbeing, improved air quality, improved species diversity, creating jobs AND reducing carbon emissions.

There remain challenges around wider community engagement. Between us we need to involve many more people and businesses in our community in discussing and developing this interim action plan. There is a need to refine and prioritise actions that will have most impact, and coordinate and collaborate between interest groups and with higher power governance to enhance the multi-solving benefits of our actions.

These are the early days of a large process of radical change required at all levels of society for the challenges facing us. There are clear benefits to us in this process of locally grown low carbon transition - to our wellbeing, resilience and community cohesion. And while there is enthusiasm on the ground we want and need this to be matched by support from government to meet the speed and size of the changes required.

It remains a priority to look at how to communicate this report/outcomes from it with the public.

Written by the steering group July 2019

Appendices

Appendix 1 Energy in Buildings -

Further information

From the recently released 'UK housing: Fit for the future?' report from the Climate Change Committee, there are five urgent changes required by the UK Government to assist in tackling climate change when it comes to housing:

- **Performance and Compliance** – Closing the 'performance gap' between how homes are designed and how they actually perform when built or retrofitted is a vital first step to ensure improvements to Building Regulations are effective.
- **Skills Gap** – We need to develop a better skilled construction sector that will deliver better homes, high-quality jobs and ensure we realise the domestic and international industrial opportunities related to low-carbon building.
- **Retrofit existing homes** – Given the scale of the challenge, retrofit must be viewed and supported by HM Treasury and the devolved administrations as a national infrastructure priority.
- **Building new homes** – Immediate Government action is needed to ensure the new homes planned across the UK are fit for purpose, integrating the highest possible levels of emissions reduction with a package of design improvements to adapt to the changing climate.

- **Finance and funding** – Policy frameworks and support need to create an attractive package for householders, aligned to 'trigger points' when important decisions are being made, such as when a home is purchased, a boiler breaks down, or when other renovations are taking place.

Of these five points above, the skills gap, retrofitting and financing the changes are the major challenges facing the Dyfi region.

Notes on specific Action Points in the table above

1. *Raise awareness of the issue*
2. *Educate and develop a skilled local work force*
 - The need to decarbonise and improve the climate resilience of our homes has the potential to create big opportunities for businesses and high-quality skilled jobs.
3. *Green Energy Supplier*
 - References of similar previous campaigns and information
 - Low Energy Building Database; case studies of whole home retrofits: <http://www.lowenergybuildings.org.uk>
4. *Home Energy Assessments*
5. *First step Improvements (simple, low cost)*
 - humans are excellent at picking up small movements in air flow, reducing drafts can dramatically reduce how cold the building can feel and may negate the need to increase the thermostat.
 - Recent improvements to energy efficiency in lighting can help to reduce energy bills.
 - References of similar previous campaigns and information
 - Big Energy Saving Week: <https://www.energysavingtrust.org.uk/blog/big-energy-saving-week-simple-advice-bring-big-results>
 - Simple Steps to Cut Energy Bills: <https://www.energy-uk.org.uk/media-and-campaigns/press-releases/20-2014/4863-simple-steps-cut-bills-says-energy-uk.html>
6. *Second Step Improvements – further reduction in energy demand (limited changes to building fabric)*
7. *Individual home retrofit (large scale improvements)*
8. *Mass home retrofit of local authority owned homes and other buildings*
 - References of similar previous campaigns and information
 - Example of large scale retrofit programme: <https://www.energiesprong.uk>

Things that are essential in new housing –
Very well insulated (higher than building regs requirements)
Very efficient windows (higher than building regs),
Dwellings orientated so that they can all have large windows facing south to take advantage of passive solar heating (and then designed to allow heat to escape through natural ventilation)
Underfloor heating (it can be run at lower temperature than heating with radiators)
Very important -
Solar water heating is more efficient than solar electricity in terms of carbon emissions and very useful for domestic hot water (mainly for showers etc).
If they are family homes then good space for children to play together outside
Ground floor flats should be fully disabled access (including doorways wide enough for large wheelchairs)
Outdoor surfaces able to absorb and allow good drainage of water (climate change means more patches of heavy rain and it needs to be retained in soil and drain away slowly)
Heating system run with ground or air source heat pump if possible
The use of 'local' and sustainable engineering timber (Esgair Forest?) is to be encouraged.
Given Machynlleth's (Inter)national credentials for innovation and eco sustainable building excellence then the use of local specialised eco-friendly companies should be encouraged
Things that would be nice but maybe not so important –
More green space. Growing spaces for small veg / herbage
"Swift bricks" (swift nesting space) and other wildlife friendly features
A design that is not a boring copy of all the other things intended to 'fit in' with existing buildings

Appendix 3 Food Group - Data collection and consultations – Feb – July 2019

Schedule of meetings – Speakers, Guests and Recap & Consolidation gatherings

7-9pm 14th March – Upstairs in White Lion

Machynlleth Climate Emergency Food Group - Past and future^[SEP] John Williamson – JPW - Presentation: Mach1212 Food Group rev 2.pdf

7-9pm 28th March – Upstairs in White Lion

Farming Future & Histories - Chris Higgins Ecodyfi - Presentation: Mixed Farming Machynlleth CE Food Gp 28032019.pdf

7-9pm 25th April – Upstairs in White Lion - Field Scale Horticulture CSA – English speaking event -

Gerald Miles - Technical talk on setting up a 5 acre CSA on his farm for his son which supplies 60 households. 'Understanding the farmers perspective' in order for Horticulturalist in the Dyfi Valley to potentially do the same. All growers, growers to be and land owners interested in participating

welcome.

7-9pm 26th April – Glantwymyn Village Hall

Field Scale Horticulture CSA - Welsh speaking only event - Gerald Miles – For the Farming Community & advertised via Young Farming Network.

7-9pm Thursday 2nd May - Bryn Tyrnol Mach Maethlon & Pathways to Farming Katie Hastings

7-9pm Thursday 9th May Venue : Back Bar of Wynnstay Hotel Discussion on Food Culture & Behaviour Change – Slow Food

Lea (Slow food Germany) & Gareth (Wynstay Chef / Slow food advocate)

7-9pm Thursday 16th May - White Lion Upstairs No Speaker – Recap & Consolidation gathering

7-9pm Thursday 23rd May Venue : White Lion Upstairs Future Food & Nature landscapes

Ben Porter - Summit to Sea project <http://www.summit2sea.wales/>

7-9pm Thursday 30th May – Venue : White Lion Upstairs No Speaker – Recap & Consolidation gathering

7-9pm Thursday 6th June Venue : White Lion Upstairs Local Supermarket food retailing & local sourcing - What does Machynlleth eat & could Coop procure more locally produced regenerative organic food? Charlotte Mann, Machynlleth COOP

7-9pm Thursday 13th June Venue : White Lion Upstairs - Food waste for Human consumption / Personal Consumption & Commercial production - in relation to composting food scraps & feeding to small animals – Lessons/regulations/ inspiration followed by discussion Aber Food Waste

7-9pm Thursday 20th June Dyfi Valley Farmers Perspective - Past, Present & Future followed by discussion. Edward Jones, Blaenplwyf Farm

7-9pm Thursday 27th June No Speaker – Recap & Consolidation gathering

7-9pm Thursday 4th July - Venue : White Lion Upstairs Future Farming Policy Wales – existing policies supporting Organic farming & proposed changes to subsidies (Public good & Economic resilience) and future of Farming policy in Wales. Tony Little – Accredited Advisor ORC

7-9pm Thursday 11th July Venue: White Lion Upstairs Machynlleth Community Food Care and Advice, Food Bank / Camad / Meals on Wheels / MWAC Clive Thomas & CAMAD

Suggested Speakers for future dates TBC

1. Micro food Businesses – challenges and constraints – Scaling up together to feed Machynlleth Local guest speakers TBC at another date

2. Powys School & Hospital policy & practice - locally grown food procurement PCC

3. Foraging, Fishing & Wild Meat – As Councils implement picking bans to protect bio diversity and Govt limits angler fish catches to protect stocks, what is the future for a wild food diet. John Mason, John the Mushroom, Adam Thorogood.

4. The Role of Grazing Animals and Agriculture in the Cambrian Mountains Ieuan Joyce

5. Integrating tree crops to existing land use (agroforestry, silvopasture) Tom Clare – Pencedni – One Planet Development

6. Food Manifesto Wales Jane Powell

Wales Real Food and Farming Conference – 11-12 Nov 2019 - Aberystwyth. Invitation to MCEFG to host workshop on Machynlleth's Climate Emergency Food action Plan

Reports discussed and referenced

Minutes of meetings & Presentations available. ^[SEP]A list of Referenced reports and papers cited through the process is being compiled.

Appendix 4 Waste - Further information:

- *challenges*

1. Separation of items in household waste: How easy is it, how successful is it, how common is contamination?

2. Business waste: How much is recycled? Could more be recycled if recycling removal didn't cost extra? (shops often don't recycle as they have to pay for collection)

- *information gathered*

"Food and other waste notes PCC"

"Awareness and enforcement" presentation from PCC waste officer

Specific types of waste, investigated and possible solutions.

Crisp packets - stationary recycling in schools available in Ysgol Bro Hyddgen. Could this be extended?

Plastic Bottles - Refills for water available Coastal Path and local businesses. Publicise.

Containers - Use of re-use shopping bags and coffee cups are now common. Re-use container for takeaway meals - investigating.

Litter in town - Public bins for recycling (as in leisure centre).

Litter in outlying areas - Litterpick carried out along Dyfi riverbank and collection analysed.

Packaging - Local independent shops and market stalls have some control over types of packaging, also Coop have control over their own brand goods. Coop agree they could drastically reduce own brand packaging and it is under review. BUY1GET1FREE type offers now rarer.

Food waste - Coop system offers food waste to three charities. They are reviewing this and looking at how to sell food in smaller quantities. More home composting, public composting investigated for public spaces, Community Garden, Mach Maethlon.

Agricultural waste - Previous scheme for bale and silage wrap is discontinued. New wash plant needed. Investigating where it was previously sent.

Bulky waste - Reduction of public recycling facilities in Machynlleth. Garden waste recycling unit has been removed (because of contamination) and a charging system introduced. Clothing, glass, cardboard, cartons and paper cups and paper recycling units remain.

Appendix 5 Role & approach of the steering group

"We defined our role to be the coordination of the process of inclusive consultation, engagement and action planning that flows from the declaration of a climate emergency by Machynlleth Town Council on 17th December 2018, liaising with the Council so that they can report to the community as well." Specifically to oversee that:

Things are moving forward at an appropriate pace ^[SEP]

Help coordination, identify synergies and gaps. Produce tools to ^[SEP]facilitate it. ^[SEP]

Accountable to & work closely with Town Council ^[SEP]

Come up with a plan in the 6 month timetable ^[SEP]

- ☒ Ensure work of whole process is inclusive and engaged with stakeholders and the wider community.
- ☒ Liaise, including outreach with other community and town councils

We proposed values to guide the consultation, with input from the working groups

- inclusivity
- transparency
 - Making minutes etc available
- Declare vested interests (eg if we or someone close to us might benefit financially from something) We need some principles to cover this.
 - accountability
 - a process for agreeing that
 - who takes roles is an open and conscious process
 - what is produced is agreed by the whole group
 - people consult the working group where possible before speaking on behalf of the group publicly
- be ambitious and realistic
- be respectful
- assume goodwill
- have non-judgmental communication (avoiding shame and blame)
- focus on local, mindful of global
- understanding that our well being depends on the well being of the natural world and biodiversity loss greatly decreases the resilience of the whole system of which we are a part (Although biodiversity was not mentioned in the original petition letter it was subsequently thought to be a key area to include for natural carbon capture and overall resilience of all natural systems)

Appendix 6 Further information on transport

- **Challenges**
 - The cost of trains and buses
 - Cost of changes e.g installing EV chargers and making cycle paths
 - Gaining planning permission for any changes
- **Benefits**
 - Lowering carbon footprint
 - Lowering pollution

Positive impact on health and wellbeing

Improvements to access to make car-less travel easier

- **Investment**

Financial- some of these changes may need a significant investment

Time – lots of ground work, lobbying and planning may be needed to achieve these goals

Appendix 7 Energy Supply Group Further information:

- *notes about the individual actions, using the reference numbers*

Available grants and support already identified for action 2 are: Dyfi Community Energy Fund, Windfall, Welsh Government Energy Service, Sustainable Communities Wales, Renew Wales. They can be accessed through Ecodefy.

- *challenges*

➤ Not many people in the group yet

➤ Is Net Zero possible?

- *information gathered*

On 11 June 2019, Lesley Griffiths AM, Minister for Environment, Energy and Rural Affairs formally accepted the recommendation of the Committee on Climate Change that Wales reduces emissions by 95% by 2050 against the 1990 baseline. She intends to bring regulations to the Assembly next year to amend the existing 'at least 80%' 2050 legally binding target. At the same time she will bring regulations to set the Welsh Government's third carbon budget and amend the interim targets and existing budgets, as necessary.

She also declared Welsh Government's ambition to go further by bringing forward a target for Wales to achieve net zero emissions no later than 2050.

<https://gov.wales/written-statement-response-committee-climate-changes-net-zero-report>