Manchester: A Certain Future

Manchester, UK





Manchester: A Certain Future - the city's shared plan to tackle climate change

The pioneering shared plan to tackle climate change "Manchester: a Certain Future (MACF)" is an integrated plan that defines the main actions by which Manchester will tackle climate change until 2020. Initially launched in 2009 and updated in 2013, the four key points of MACF are [1]:

- Reduce the city's carbon emissions by 41% by 2020 based on 2005 levels;
- Develop a Low Carbon Culture Change so that 'low carbon thinking' is embedded into the lifestyles and operations of the city;
- Prepare for and actively adapt to a rapidly changing climate; and
- Develop an active transition to a low carbon economy.

The 2013 MACF documents the progress achieved since 2009, and ensures the consistency of its key aims with the "Greater Manchester Climate Change Strategy" published in 2011 [1].

The MACF will be revised in 2016 through the "MACF 2016-20 Plan" which will include an active stakeholder engagement process for climate adaptation in Manchester until 2050, and ensure the continuity of the transformative action to shape a low carbon future [1].

Country/ City Profile

Source: @ OpenStreetMap contributors	Country		City	
	Population (2014)	64,510,376 [2]	Population (2014)	520,200 (Manchester City) [4] 2,633,800 (Metropolitan) [5]
	Land area (km²)	243,610 [2]	Land area (km²)	1,276.86 [6]
	GDP per capita (20 current internation purchasing power p	al \$, at	GDP per capita (2014,US\$, at purchasing power parity)	35,029 (Metropolitan) [5]
	Region	Northern Europe	Region	Inland
City's physical geography	Location [6,7,8,9]	 Manchester lies in the northern England megalopolis bordered by the Cheshire Plain to the South, and to the North and East by the Pennines, a mountain chain that runs the length of Northern England; Being one of the largest metropolitan areas of the United Kingdom, and one of the most urbanized and densely populated areas of the country, Manchester has a strong regional central business district formed by Manchester City Centre and the districts of Salford and Trafford; Manchester's geographic features, its climate and proximity to a seaport at Liverpool, the availability of water power from its rivers, and its nearby coal reserves were highly important in the development of Manchester as the world's first industrial city. 		
	Climate [6,7,9]	 ✓ A temperate oceanic climate with mild summers and cool winters, relatively high humidity levels (between 85-89%), and regular but generally light precipitation throughout the year; ✓ The city's average annual rainfall is 806.6 millimetres and there are on-average 140.4 days per annum with rain; ✓ An annual average temperature of 7.5°C (45.5°F), with a mean temperature of 21.1°C (70°F) in July (the warmest month) and a mean temperature of -6.8°C (19.7°F) in January (the coldest month). 		

Initiating context

The historical context of tackling climate change in Manchester dates from 2008 when the "The Principles of Tackling Climate Change in Manchester" were approved in accordance with the UK Climate Change Act. In "the Principles" Manchester provided a base by which Manchester could reduce its CO₂ emissions by 2020 [10].

Building on the commitments in the "Principles", the municipal "Climate Change - Call to Action" was then released in January 2009, as a base for the development of the plan "Manchester: A Certain Future" (MACF). The "Call to Action" stated that Manchester should become a low carbon city by 2020 and included a specific commitment to produce a stakeholders' plan for tackling climate change in advance of the UN Summit on Climate Change in Copenhagen in December 2009 [10, 11]. The "Call to Action" also contributed to Manchester's Community Strategy, "The Manchester Way", which established the importance of working collectively as a city to achieve greater prosperity and healthier urban environments. These reports and the responses to them helped to shape the MACF action plan [11, 12].

MACF was released at the end of a prosperous economic decade in the UK and in a period of optimism that anticipated the Copenhagen Climate Change Conference in December 2009 [10, 11, 12]. Since the election of a new UK Government in May 2010, there have been significant changes in the national policy structure. Initiatives such as the Green Deal, the Green Investment Bank and the Feed-in-Tariffs have been developed to support regional and local actions on climate change; and the abolishment of the regional governance structures have changed the relevance that structures such as Greater Manchester Combined Authority (GMCA) assumed on tackling future climate change actions [12].

In Greater Manchester, the establishment of the GMCA, the Greater Manchester Local Enterprise Partnership (GM LEP) and the signing of the Greater Manchester City Deal between Greater Manchester Combined Authority and the UK government have been key features of structural change [12].

As a activity under the City Deal, Greater Manchester, in a joint venture with the UK Green Investment Bank, has established a Low Carbon Hub to help secure investment on low carbon energy projects and to drive the Greater Manchester Climate Change Strategy 2011-2020 (GMCCS) [12].

The 2013 revised version of MACF reflects this process, since one of its main objectives is to achieve a better alignment with the commitments established in the GMCCS, and to achieve a stronger connectivity between activities within the city and other Greater Manchester districts [12].

The GMCCS has implications for many other existing policies at the local and regional level on specific issues, such as energy and transportation planning, and flood risk management, for example. This document identifies the higher priority actions and assures the alignment of funding and resources with key themes focused on cost effective energy efficiency measures [12].

Project description

Manchester: a Certain Future (MACF) is a strategic framework that is actively undertaken by organisations and citizens to address the current challenges and the future opportunities of climate change by 2020 (and also anticipating further challenges to 2050) [12].

MACF aims to substantially reduce the city's CO₂ emissions and to achieve a cultural change that enables citizens, businesses and other organisations to adopt and implement the principles of a low carbon economy and urban environmental protection [10, 11, 12].

Divided into five thematic areas (buildings, energy, transports, sustainable consumption and production, and green and blue infrastructure), MACF incorporates four main objectives to reach the city's 2020 vision [10, 11, 12]. These are to:

- Reduce the city's carbon emissions by 41% by 2020 based on 2005 levels;
- Develop a Low Carbon Culture Change so that 'low carbon thinking' is embedded into the lifestyles and operations of the city;
- Prepare for and actively adapt to a rapidly changing climate; and
- Develop an active transition to a low carbon economy.

Implementation process

The MACF plan was produced by a network formed by the City Council, the Manchester Board and business and organizations' representatives. This network established the designated MACF Steering Group in 2010 [10, 11, 12].

This Steering Group has provided the link to other stakeholders and co-ordinated the work of wider groups or partnerships who are tackling specific actions in MACF. The Steering Group's work is assisted and co-ordinated by Manchester City Council, through the ongoing support of other stakeholders. Additionally, the Group has direct participation on the periodic revision of MACF, ensuring that the city remains on track to achieve MACF's main objectives by 2020. Since its initial implementation, MACF is periodically revised in its annual reports (available on the MACF website), which details the city's progress and the fulfilment of MACF's targets [11, 12].

The recent 2013 MACF revision assumes an approach that reflects Manchester's current needs, thus structuring its activities and work to ensure that by 2016 Manchester is ready for the next wave of action until 2020 [12].

In terms of communication and dissemination, MACF has its own website, hosted by a Platform (a daily updated portal for sharing sustainability knowledge and intelligence across Greater Manchester) which incorporates all the progress updates, information on Stakeholder Steering Group and links to publications, downloads and upcoming events. Detailed information about the carbon measurement progress, how the plan's actions and targets have been set, and complementary information and resources about climate change can be found on the Platform. The website that hosts the Platform will also follow the future plan development, in particular to record its progress and to allow the exchange of ideas and experiences [10, 11, 12].

Projects implementation details					
Process/ Leadership	MACF is co-ordinated by Manchester City Council with the support of the MACF Steering Group [12].				
Financing	Manchester City Council is committed to support the MACF action plan through the financing resources of the Manchester City Council Climate Change Delivery Plan 2010-20. The implementation of the MACF Action Plan 2013-15 will deliver financial savings for the city's residents and organisations, particularly through reduced energy bills, and also through improvements in resource efficiency, and reduced travel costs [12, 13, 14].				
	As a complement, the Association of Greater Manchester Authorities (AGMA) also provides funding to support specific action lines on environment, planning and low carbon investment [13, 14].				
	Specifically for the Manchester Carbon Literacy project to provide a "carbon literacy" training to everyone who lives, works or studies in the city, a fund under the Council's "Low Carbon Reserve" was released [13, 14].				
Involved stakeholders [1,13]	 Manchester City Council MACF Steering Group Greater Manchester Combined Authority (GMCA) Association of Greater Manchester Authorities (AGMA) Local Enterprise Partnership (LEP) Environment and Planning & Housing Commissions LCEA (Low Carbon Economic Area) Programme Board Greater Manchester Energy Group Transport for Greater Manchester Manchester Environment Agency Greater Manchester Waste Disposal Authority Environment Commission's Low Carbon Economic Area Programme Board 				

Achieved Results

According to the MACF Annual Report 2015 (which reports the progress achieved through the MACF 2013 version update), Manchester's annual CO₂ emissions have fallen from 3.3 million tonnes in 2005 to 2.6 million tonnes in 2014, which is equivalent to a 21% reduction. However, the rate of emission reduction needs to be faster in the upcoming years, in order to meet the target established for 2020 [1]. The MACF Annual Report 2015 also states that between 2005 and 2014 Manchester's per capita emissions reduced from 7.19 tonnes to an estimated 5.04 tonnes, which corresponds to a reduction of 30% [1].

For low carbon culture change, the mentioned report indicates that the culture of the city may be changing since the people living in Manchester are generating less CO₂ emissions per head, and there are now 1,616 certified carbon-literate citizens throughout the city, each having completed one of the many Carbon Literacy learning actions [1].

The combatting climate change is also taken seriously by 64% of Manchester businesses that are actively trying to improve their energy efficiency. From June 2014 to May 2015, 47 Manchester businesses received support from the Business Growth Hub Green Growth service, totalling cost savings of £649,000 (953,000 US\$) and 1,720 tonnes CO₂ avoided over this time [1].

To undertake a rapid transition to a low carbon economy, the indicator, carbon intensity (amount of carbon emitted per unit of economic activity), for 2014 states that Manchester's economy produced 163 tonnes of CO₂ per £1 million GVA (Gross Value Added) equivalent to a reduction of 30% on 2005 levels [1].

Through the progress review of the thematic areas (buildings, energy, transports, sustainable consumption and production, and green and blue infrastructures), "buildings" are projected to be the area likely to meet the MACF targets. Since 2005, carbon emissions from buildings registered a reduction of 25.3%. If the current trajectory continues, by 2020 it will be possible to reduce the emissions from buildings by 42% from 2005 levels (exceeding 1% of the targeted saving) [1].

Lessons learned

The retrospective of the first five years of the MACF plan reveals that, despite the already achieved progress, the current projects and measures will still not be enough to ensure the full compliance of the MACF goals. Thus, in upcoming years, it will be even more challenging to reach the aspired targets [1].

The main lessons learned were that the existing progress is positive and worthy of recognition, however, it is now necessary to significantly expand the planned good practices and enhance the collaborative and participatory process for all the stakeholders in Manchester [1].

According to 2015's MACF Annual Report, the keys to MACF success are: the securing of the right level of political action on climate change, the proliferation of networks of stakeholders, and the sharing and promotion of good practices [1].

References

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