Climate Ethics in Transport Planning: A far away country of which we know little?

Transport Planning Society Bursary Essay

Alistair Baldwin - Newcastle City Council

Total Wordcount: 4,993 excluding endnotes

1. INTRODUCTION

1.1 Climate change is recognised as a defining issue of our times, with over 80% of the British public[1] very or fairly concerned with the issue and with Environment now rated as the fourth most important issue facing the UK[2]. In transport, we have seen both scheme funders, promoters and consultants declaring a 'Climate Emergency' and seeking to meet carbon emission targets in the shortest possible time. However, the profession of Transport Planning as a whole has been slow to respond, individual transport planners and organisations which are corporate members of professional bodies continue to act and advise on projects and programmes which increase, rather than decrease, UK carbon emissions.

1.2 Within this essay, the Climate Emergency will refer to the emission of Greenhouse Gases from the construction or operation of any transport infrastructure project, activity or policy.

1.3 This project seeks to assess what more transport planners and those within the transport industry can do to address the climate emergency, through the lens of codes of conduct or ethics which are enforced by their professional bodies as a condition of membership. It will do this through the medium of interviews with transport practitioners based within the North East of England, as a case study area.

1.4 In order to examine this issue, it is important to define specific research question that this project will seek to answer, these have been defined as the below:

RQ1: How do professional codes of conduct or ethics for transport planners address 'the climate emergency'?

RQ2: What is the current understanding of 'the climate emergency' among transport planners and how are they addressing it?

RQ3: How are these codes applied in practice in an exemplar region (the North East of England) and what more could these codes do?

1.5 The methodology undertaken within this project has sought to integrate qualitative semi-structured interviews with a literature and policy analysis. The semi-structured method was chosen because this approach allowed conversation to flow easily, but also allowed interviewees to expand upon answers and reflect, since the topic under discussion was complex and multi-faceted. However, in order to ensure some consistency between interviewees, a fully unstructured interview approach was not felt to be appropriate. A copy of the standard questions are appended as Appendix 1.

2. RESEARCH QUESTION 1: HOW DO PROFESSIONAL CODES OF CONDUCT OR ETHICS FOR TRANSPORT PLANNERS ADDRESS 'THE CLIMATE EMERGENCY'?

SUMMARY:

- **Only one of six Codes refers explicitly to carbon, while all require adherents to understand the impacts of their work on the wider environment**
- **Most codes only require members to account for, give due weight to or justify the adverse effects of the work rather than directly advocate for the most sustainable solution**

2.1 Professional bodies often have articles of association which govern their formation and the jurisdiction over their members. These articles of association typically also set out a code of practice/conduct which are required to be followed by their members in order to maintain membership or a particular status such as chartership. Codes of Conduct or Ethical Principles are common to professions as diverse as medicine[3], the military[4] and librarians[5].

2.2 These Codes are designed to ensure that public trust in professions can be maintained and that there are elements of professional responsibility and standards are applied that are above those maintained by those outside the profession. As Davis notes *"A code must state either what any decent person knows… or seek to impose obligations beyond what ordinary morality requires"* [6] [7].

2.3 The wider question should be asked – why are Codes of Conduct & Professional Ethics (hereafter 'Codes') relevant to transport practitioners? Stokes (2015)[8] makes a compelling case for a set of ethical principles covering transport planning with its impacts on wider society. Banister (2003)[9] argues for an *"ethics of honesty. Transport Planners should not try to claim their methods and approaches to analysis have all the answers*" and Buchan/TPS (2018)[10] place Principles & Codes *"As part of our new push to gain wider recognition for the profession[…] the idea that transport planners' work should always be truly independent; questioning and open minded"*.

2.4 Within the wider transport universe, there are a wide array of approaches to Codes, this can range from the relatively simple, containing only a few high-level principles[11], through to more detailed, setting out clearly expectations for actions to be undertaken[12].

2.5 For the purposes of this project, Codes for the following professional bodies have been analysed:

- Transport Planning Society (TPS) [13]
- Chartered Institute of Highways and Transport (CIHT)[14]
- Chartered Institute of Logistics and Transport (CILT) [15]
- Royal Town Planning Institute (RTPI)[16]
- Royal Academy of Engineering (RAE)[17]
- Royal Institute of British Architects (RIBA)[18]

2.6 Many professionals in the industry will be members of one or more of these bodies, other bodies or none at all. The above list encompasses the majority of the largest professional bodies for transport planners.

2.7 As would be expected, the different Codes for professional bodies place different elements of emphasis on the conservation of the environment, sustainability and climate change. This is set out below, for each body, the relevant key principles, any sections which require individual interpretation on how professionals should act and any specific requirements on climate change or sustainability:

Body	**Key principles**	**Section that requires an element of interpretation**	**Requirements regarding climate change/sustainability**
TPS	- Accuracy and Rigour - Honesty and Integrity - Respect for Life, Law and the Public Good - Responsible Leadership: Listening and Informing	they serve wider society and to be sensitive to public concerns	- minimise and justify any adverse effect on society or on the natural environment for their own and succeeding generations - take due account of the limited availability of natural and human resources
CIHT	- Accuracy and Rigour -Honesty and Integrity -Respect for Life, Law and the Public Good -Responsible Leadership: Listening and Informing	give due weight to[…] the wider public interest. be alert to the ways in which their work might affect others	-minimise and justify any adverse effect on society or on the natural environment for their own and succeeding generations -take due account of the limited availability of natural and human resources
CILT	-Act with integrity and professionalism -Act responsibly -Continue their professional development -Endeavour to serve the interests of their employers and employees -Strive to build their professional reputation -International understanding, goodwill and co-operation	Act with integrity and professionalism and carry out their duties in such a way as to promote a positive image of the Institute and the profession.	secure the welfare, health and safety of all members of their organisations and take account of the impact of their activities on the environment and the community
RTPI	-Competence, honesty and integrity -Independent professional judgement	there will be tensions between these issues, however as a professional planner you are responsible for reconciling these in a way which best serves	can fulfil their 'public interest' duty by having regard to: - Long term consequences of the planning proposal or issue in question,

	-Due care and diligence -Equality and respect -Professional behaviour	the achievement of sustainable development.	- Protection of natural and historic environments or any features of special interest,
RIBA	-Integrity -Competence -Relationships	Members shall have proper concern and due regard for the effect that their professional activities and completed projects may have on users, the local community and society.	- consider the environmental impact of their professional activities, including the impact of each project on the natural environment - promote sustainable design and development principles in their professional activities. - advocate the design, construction, and operation of sustainable buildings and communities. - inform clients of sustainable practices suitable to their project and shall encourage their clients to adopt sustainable practices at the earliest opportunity - use reasonable endeavours to minimise whole-life carbon and energy use
RAE	-Honesty and integrity -Respect for life, law, the environment and public good -Accuracy and rigour -Leadership and communication	a duty to … give due weight to facts, published standards and guidance and the wider public interest	- protect, and where possible improve, the quality of built and natural environments maximise the public good and minimise both actual and potential adverse effects for their own and succeeding generations - take due account of the limited availability of natural resources

2.8 There are elements of commonality, in that all require those following their respective Code to take some account of the impact on the environment or society of the work they are doing, there are significant differences.

2.9 The most striking conclusion which can be reached however, is that only one, that of RIBA, actively requires members to actively promote sustainable solutions to their clients and is the only Code that explicitly mentions carbon.

2.10 Many of the bodies have requirements that are not explicit and where interpretation is required as to how a practitioner should act in a particular situation.

2.11 RAE, TPS and CIHT all have very significant areas of common ground, although RAE requires protection and improving the quality of the built environment. TPS and CIHT require members to minimise *and justify* (emphasis added) adverse effects.

2.12 Therefore, if followed to the letter under current Codes, most professional bodies for transport planners would accept actions which would result in negative impacts to the environment or natural resources, as long as these actions could be justified and had been minimised within the process. This represents relatively limited professional accountability.

CONCLUSION:

2.13 The 6 professional bodies have important similarities and differences in how they treat climate change, potentially affecting how practitioners work if they were to hold to them. The Codes have been subjectively assessed below, with a score out of 5 (with 5 the highest) as to their level of emphasis on climate change and sustainability and whether guidance is typically explicit or implicit.

Institution	Subjective Score	Is guidance on climate typically inferred or explicit?
TPS	3/5	Inferred
CIHT	3/5	Inferred
CILT	1/5	Inferred
RTPI	3/5	Inferred
RIBA	5/5	Explicit
RAE	3/5	Inferred

3. INTERVIEW METHODOLOGY

3.1 The review of existing sets of Codes is informative in how professional bodies and associations govern their membership and what standards they expect. However, this is not always directly related to the practice of transport planning 'at the coal face'. In order to gain a greater understanding of how this is applied in practice, a number of (8) interviews were conducted with transport professionals based in the North East of England.

3.2 An attempt was made to establish as far as possible a diverse cross-section of interviewees from across the transport industry. Correspondingly, the following breakdown was achieved:

Background:	Public Sector (5 including Local Authority, Combined Authority, Passenger Transport Executive), Private Sector (3)
Professional Bodies:	TPS (3), CILT (1), CIHT (3), RTPI (1) – one interviewee was a member of two professional bodies and one was a member of none
Specialisation:	Transport Planning/Policy (3), Public Transport (1), Transport Modelling (1), Active Travel (1), Project Management (1), Transport Engineering (1)
Experience:	Between 5 and 30 years within transport; graded between Senior and Director

3.3 Further details on these are provided in Appendix 2, split by public and private sector.

3.4 An acknowledged weakness of this group of interviewees is that there were gaps in representation from Development Planning and Business Case/Appraisal specialisms. Interviewees had not always worked in one discipline for their career or always within the public/private sector so often gave responses covering both.

3.5 These interviews were conducted in a loose semi-structured style, typically taking around 30 minutes to complete and focused on the following areas in response to the Research Questions:

- The level of understanding of transport practitioners of the limits to growth, sustainability and climate change (RQ 2)
- The extent to which decision-makers are factoring climate change into work which is commissioned or conducted (RQ 2)
- The level of familiarity with the Code for their particular body, including how this Code discusses sustainability or conservation of resources and where they may have applied it in practice (RQ 1)
- How they interpreted the links between their understanding of sustainability and climate change and the Code (RQ 1,2,3)
- Their opinion on any potential ways in which this link could be deepened (RQ 2,3)

4. RESEARCH QUESTION 2: WHAT IS THE CURRENT UNDERSTANDING OF 'THE CLIMATE EMERGENCY' AMONG TRANSPORT PLANNERS AND HOW ARE THEY ADDRESSING IT?

"Within the last 6 to 12 months it's become more an issue…even at the [Local Authority] level we now get asked on it for decisions […], there's more awareness at the broad level but we haven't really progressed far enough into it to see it's making much of a difference" – Interviewee #6

SUMMARY:

- **Climate change is well understood by transport planners, although not always in terms of whole-lifecycle carbon costs**
- **Sustainability is already incorporated into many public sector statutory plans but declarations of Climate Emergencies have not fed through into work commissioned or undertaken in a major way, although there is some evidence this is beginning to happen**

4.1 Given the prominence of climate change it remains important to garner a more detailed understanding from practitioners of whether and how this is influencing the work that they undertake on a daily basis.

4.2 Understanding of transport's role within climate change was uniformly strong across all interviewees, perhaps unsurprisingly. There was widespread acknowledgement of the contribution that transport is making to climate change both locally, nationally and globally.

4.3 It was clear that the perception of the contribution of transport to emissions was more linked to emissions directly linked to the operation of a scheme rather than the construction of a scheme, most interviewees only discussed this when prompted or not at all. As estimates are that 17% of the total lifecycle carbon emissions from buildings & infrastructure interventions are from the construction itself[19], this may illustrate, albeit subjectively, a minor gap in the thinking of transport planners.

4.4 Where there was a significant divergence of views was with regard to how publicity around climate change had affected the work that was being commissioned. Within the private sector, there was a continuing feeling that there were other factors which drove the work that they were typically commissioned to do from clients, even though there was an increased acknowledgement of climate change rhetoric from clients and there were various possible reasons for this given, including budgets and organisation (*"It's fine until it impacts time or cost, then it's the first to go"*)

4.5 There was a greater diversity of opinion within the public sector, where there was discussion that there had been a change in rhetoric from decision-makers in response to changing public attitudes with regards to climate change even if this had not always fed through into work that had been commissioned or the nominal principles of the body[20].

4.6 All from Local Authorities typically noted that, in reality, their organisations had already embedded environmental principles into statutory and non-statutory documents

such as Local Plans or Local Transport Plans, but it was about whether they were being followed in practice or not.

4.7 It is possible that this divergence in opinion is linked to the long lead-times for work to be commissioned from the public sector decision-makers. For example, after an Authority declares a Climate Emergency, it is entirely possible that no transport consultancy work relating to this will be commissioned for over a year given extended decision-making times within local government and the difficulty of removing interventions from existing programmes[21]. Private sector respondents noted that work commissioned for clients was not yet reflecting a supposed change in attitudes relating to climate change and public sector interviewees were not able to give definitive answers as to how any declaration of a climate emergency had changed the forms of work they procured or bid for. This included private sector consultants who had declared a climate emergency as an organisation[22].

4.8 Transport Planning does not exist in a vacuum and the declaration of a Climate Emergency is not likely to lead to a sea-change of attitudes across organisations overnight. Furthermore, the numerous statutory processes such as Local Development Plans, Local Transport Plans, Clean Air Zones and non-statutory strategies such as Local Industrial Strategies, Strategic Economic Plans and Sustainability and Transformation Plans have their own set of complex and overlapping timescales and accompanying guidance. Declaring a Climate Emergency does not change the Objectively Assessed Housing Need for a Local Authority and there are often very significant elements of institutional inertia or lack of institutional capacity[23] which mean that any changes in commissioned work would take time to feed through.

CONCLUSION:

4.9 While there was a good level of understanding of climate change across all interviewees, there was a divergence between both public and private sector and between disciplines as to the impact that the climate emergency was having on their jobs. Public Sector employees were more likely to argue that climate change had been realised at a policy level in their organisations and was beginning to be put into practice, albeit slowly. Private sector employees had seen some elements of this flow through into commissioned work.

4.10 External pressure groups have called for a total rethink of how practitioners in all fields conduct themselves in the world of a climate emergency, but the issue is being handled primarily as business as usual by transport planners, with the environment being one of many areas which are evaluated.

5. RESEARCH QUESTION 3: HOW ARE THESE CODES APPLIED IN PRACTICE IN AN EXEMPLAR REGION AND WHAT MORE COULD THESE CODES DO?

"I'll be honest...I couldn't really tell you what the code of conduct is" – Interviewee #2

SUMMARY:

- **Transport planners have some awareness of their own Codes, but very few have a detailed knowledge and only one had ever used it in practice. Other documents were felt to be more commonly referred to, including employment contracts & internal guidance in the private sector**
- **Strengthening Codes to allow transport planers to refuse work they felt conflicted with their climate ethics was felt to have a number of practical challenges**
- **Public sector respondents felt that it was important that decision-makers were provided by transport planners with accessible and accurate information on the climate impacts of their decisions**

5.1 Given this level of knowledge of the climate emergency, it is appropriate to assess whether Codes are influencing the activity of transport planners. This was explored through a discussion of the level of knowledge of Codes, how they might be applicable in the context of climate change and an assessment of the practicality of changes to Codes that might increase action on climate change. This is important as, while differing professional bodies treat climate change and sustainability differently, all require professionals to understand the impact of their work on wider society.

5.2 Some of the high-level outcomes are set out below:

Area	Number of respondents	Examples
General awareness of own Code	8/8	
Detailed knowledge of own Code	2/8	
Have ever needed to refer to Code professionally	1/8	Conflict of interest
Knowledge of or use of Codes or contracts outside professional body	8/8	Employment contracts, Nolan Principles, internal ethics training

5.3 The research revealed a significant diversity of knowledge with regard to the Codes. There was no correlation between members of professional bodies which have 'lighter touch' descriptions of professional standards and less detailed knowledge of these standards – while all knew of their respective Codes, only two interviewees had detailed knowledge of the Codes, both of whom currently worked in the public sector. While both of these interviewees are chartered, there were chartered interviewees who expressed no knowledge of the Codes.

5.4 Of the interviewees, only one could recall recently having had to make direct reference to their Code for an issue that they'd faced in their employment – in relation to a matter regarding conflicts of interest. Most interviewees, despite their long careers, could not recall having had to refer to their Code often, if at all, even if they'd referred to other documents or principles.[24] Given the levels of experience across the respondents, this represents one reference to a Code across around 100 years of experience, which is surprisingly low.

5.5 This demonstrates the inherent challenge of trying to incorporate sustainability and climate change within Codes, professionals rarely have had cause to refer to such Codes in practice and they are not at the forefront of their consideration when working in either the public or private sector as there are other considerations governing their actions[25].

5.6 Interviewees from the private sector frequently pointed to their contracts of employment and the expectations inherent within that that employees would behave in manners which in many ways replicate Codes, including with regard to maintaining professional standards and maintaining the reputation of the company[26]. Ethical issues were seen to primarily arise in relation to conflicts of interest, the Foreign Corrupt Practices Act or related legislation and issues which fell outside the realm of legality.

5.7 Depending on their responses to previous questions, interviewees were asked about a number of theoretical solutions with regard to how transport planners could take greater regard of the Climate Emergency, these were:

1. Requiring practitioners to report the climate impacts of decisions to decision-makers as part of their Code in different ways

2. Allowing practitioners to nominate that they did not wish to work on projects which they considered to have negative climate impacts (or other ethical issues) as part of their Code

5.8 These two potential policy options were arrived at as they were either options which were already undertaken or debated in different industries[27] or were a potential policy solution that had been suggested[28]. In addition to this, interviewees were given free rein to consider any other potential solutions which they felt would be appropriate.

5.9 There were also other suggestions as to how transport planners could affect the climate emergency, including through paying more attention to their procurement routes[29], training[30], facilitating communication[31], combining land use planning with transport[32] or even that it was ultimately more down to politics than professional behaviour[33].

1. It was noted by 80% of public sector respondents that to this is already in place to some extent. As part of wider Public Sector Equality Duties and other existing policies, when official reports are drafted there is often a requirement that environmental implications are set out. Some Local Authorities in the North East also require an explicit discussion of climate change as part of decisions[34.] One interviewee suggested that it would be more helpful if this were to be in place more widely and that there could also be a requirement for the impacts to be quantified explicitly, rather than qualitative text around positive or negative implications. This would enable public sector bodies to have greater certainty as to how they are making progress towards carbon reduction targets.

There are potential practical challenges with this suggestion, including that standard transport appraisal guidance & modelling may indicate that there will be expected carbon

increases from schemes when qualitative knowledge and experience indicates that this may not happen in the long term[35] and this divergence could negatively affect the credibility of transport planners giving the advice. Public sector respondents also noted that there was a potential skills gap within Local Authorities in undertaking the volume of complex calculations required.

It was also suggested by one interviewee that our role as planners should be to provide this information and therefore embolden decision-makers rather than take action ourselves[36] and that additional action was justified in engaging more as professions and individuals in providing accessible information.

2. There is a fundamental challenge at the heart of this proposition, that is:- as transport planners can we achieve greater change from pushing projects in a direction which acknowledges the climate emergency from within the project or from the outside?

By choosing not to work on certain projects we can shape the market in the direction we desire. This challenge has been experienced by other industries[37] and has a long historical context of boycotts for a complex set of ethical reasons, including the environment, which has been gathering pace recently such as with 'Engineers Declare'[38].

Interviewees indicated that policies similar to that in the question are in effect *de facto* if not *de jure* at some private sector companies, where work is simply not bid for if it is felt that it conflicts with the approach of the company or would impact its reputation. However, despite this, a host of practical challenges were raised to this potential solution. For example, at smaller or medium-sized companies, there are resource planning challenges and to add an ability for employees to refuse work as an inherent right would interfere with the ability of companies to do business.

There was a particular concern from those who managed staff, both in the public and private sector, that there would be challenges around defining what employees considered to be 'negative climate impacts' or other ethical objections and how this interfered with doing business or even professional pride [39.] This relates to the point above, where depending on how it is expressed and analysed, the same intervention could be described as having both positive and negative climate implications. From a practical perspective, this would create high administrational burdens.

Most interviewees, including all of those who had worked in the public sector, put to the fore the notion of transport planners as operators within political systems as well as the opportunities that being able to influence projects from within represented[40]:

"I'd rather someone like me was working on it, it was going to happen anyway, so is it better that someone like me was working on it rather than someone who didn't give a crap?" – Interviewee #3

CONCLUSION:

Providing decision-makers with improved information on decisions as in **1.** may test the skills of existing transport planners but would provide the information to embolden decision-makers within the political systems in which we operate.

Implementation of **2.** would allow transport planners to respond to the climate emergency in the strongest possible way, it would lead to a significant shift in which work was assigned

within resource planning systems and indeed even which organisations won work. It creates a risk that less ethical organisations would simply avoid employing people registered with particular bodies if it would mean they could opt out of work.

6. CONCLUSION AND IMPLICATIONS FOR POLICY AND PRACTICE

6.1 This study has revealed a number of issues for the transport planning industry to address in terms of how it can do more to combat climate change and with reference to Codes.

6.2 While the profession is undoubtedly reflecting rhetoric around the climate emergency, it is not clear that it has transferred into concrete action for practitioners, particularly those in the private sector. While this may change over time, this research would indicate that transport planners could be doing more to affect the climate emergency in the work that they commission, the projects they promote or the policies they put forward.

6.3 The interviews also demonstrated that, based on a very small sample size, that transport planners infrequently use their Codes to provide advice with regard to climate change and sustainability more widely – or indeed often refer to their Codes at all.

6.4 Throughout these interviews, it has been clear that transport planning and planners occupy a complex role as both advocates of, and often opponents to, various forms of infrastructure within a politically-led decision-making system.

6.5 That many transport planners are referring to other documents such as employment contracts or internal training may mean that these are effectively more important than Codes – but they are not subject to the same level of scrutiny and discussion within the public sphere.

6.6 If existing Codes are not being referred to with regard to climate change then either they are not fit for purpose, that transport planners do not regard climate change as important enough to make reference to or that there is a lack of awareness of how any Code refers to climate change and how it could be used to affect decisions. This research contends that the latter reasoning is more compelling.

6.7 The more complex issue is - are Codes fundamentally the right place to 'park' an issue as complex as climate change in an industry such as Transport Planning, where there are multiple challenging issues to balance? Interviewees for this work felt that a solution to allow transport planners a free hand to turn down projects by significantly strengthening the Code would run into significant practical issues given how work is won and assigned and therefore Codes may not be the correct place.

6.8 As transport planners, our best opportunities are likely to lie in *"making clients and the public alike value our professional opinion rather than seeing us as guns for hire who follow the money"*[41]. This is likely to be achieved through increasing the clarity and quality of information we provide to decision-makers on the climate impacts of their decisions and this principle was supported by interviewees.

6.9 In conclusion, recommendations are made below based on this research:

- **For professional bodies of transport planners and individuals within transport planning to continue and widen their engagement with central, local and regional government decisionmakers on the climate implications of transport planning decisions**[42]

- **To ensure that practitioners are able to express potential climate impacts concisely and**

accurately, potentially by developing further requirements around this under Core Technical Units for the Transport Planning Professional qualification.

- **For the professional bodies of transport planners to continue to review their Codes and assess whether practitioner knowledge or usage of these are sufficient, particularly in the context that the majority of the practitioners interviewed did not have detailed knowledge or had ever needed to refer to them. This could be conducted through a wider survey of chartered members or as part of the TPS annual member survey.**

Endnotes

[1] Respondents' level of concern about climate change in polls between 2008 and early 2019, ranging from "very concerned" (dark red) through to "not at all" (dark blue). Polls carried out by MORI, Opinium, BEIS and its predecessor DECC. Source: Noise of the Crowd

[2] YouGov and Carbon Brief analysis Source

[3] WMA Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects 'Helsinki Declaration' (1964) https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/

[4] US Uniform Code of Military Justice https://www.law.cornell.edu/uscode/text/10/subtitle-A/part-II/chapter-47

[5] Code of Ethics of the American Library Association, accessed in December 2019 at http://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/proethics/codeofethics/Code%20of%20Ethics%20of%20the%20American%20Library%20Association.pdf

[6] Davis, M. (1987). "The Moral Authority of A Professional Code". Nomos, 29, 302-337. Retrieved from www.jstor.org/stable/24219351

[7] Harris, J, Davis, M, Pritchard, M and Rabins, M (1996) *"Engineering Ethics: What? Why? How? And When?"* Journal of Engineering Education, 85: 93-96. doi:10.1002/j.2168-9830.1996.tb00216.x

[8] Stokes, G (2015). *'It's high time the transport planning profession was covered by a code of ethics'* https://www.transportxtra.com/publications/local-transport-today/news/40870/it-s-high-time-the-transport-planning-profession-was-covered-by-a-code-of-ethics/

[9] Banister, D. (2003) *Transport Planning: In the UK, USA and Europe* Spon Press, London p266

[10] Buchan, K. (2018) *With a set of principles, we can make transport planning a more respected profession* Local Transport Today, 22nd June https://www.transportxtra.com/publications/local-transport-today/news/58171/with-a-set-of-principles-we-can-make-transport-planning-a-more-respected-profession

[11] Such as CILT

[12] Such as RIBA at 27 pages, 3 overall principles and 31, 62 and 60 individual requirements in each principle

[13] TPS Code of Practice, accessed December 2019 at: https://tps.org.uk/public/downloads/4Lnx5/TPS_Code_of_Practice.pdf

[14] CIHT Code of Conduct, accessed December 2019 at : https://www.ciht.org.uk/become-a-member/ciht-membership-for-individuals/membership-code-of-conduct/

[15] CILT Code of Conduct, accessed December 2019 at: https://ciltuk.org.uk/Membership/Individual/Code-of-Conduct

[16] RTPI Code of Professional conduct and Ethical Standards, accessed December 2019 at: https://www.rtpi.org.uk/media/1736907/rtpi_code_of_professional_conduct_-_feb_2016.pdf and https://www.rtpi.org.uk/media/2675025/ethics_update_2017.pdf

[17] This is intended as a supplement to individual Codes for engineering bodies but is used as a catch-all across engineering, RAE Statement of Ethical Principles, accessed December 2019 at: https://www.raeng.org.uk/policy/engineering-ethics/ethics#statement

[18] RIBA code of professional conduct, accessed December 2019 at: https://www.architecture.com/knowledge-and-resources/resources-landing-page/code-of-professional-conduct

[19] The ICE (https://www.ice.org.uk/knowledge-and-resources/briefing-sheet/embodied-energy-and-carbon) acknowledges the difficulty of calculating Life Cycle Assessment emissions a point also acknowledge by the IPCC (*https://www.ipcc.ch › assets › uploads › 2018/02 › ipcc_wg3_ar5_chapter8*)

[20] "*While you might expect some of this pressure to feed through, there's still that tension really, you know that local decisionmaking, it's easy to not make the tough choices"* – Interviewee #6*; "Authorities where we're working where for example highway investments are in their programme, they certainly haven't been pulled out*" – Interviewee #4

[21] *"The things that are already quite far through a development pipeline…it's more difficult to see how we can justifiably retrofit them within the context of the budgets we have available"* – Interviewee #7; *"If we were to say right we're drawing the line now and everything that's come before has to be redesigned with this in mind, it would cost a huge amount of public money"* – Interviewee #7

[22] *"We have a commitment to becoming carbon neutral…but I haven't heard that followed through by saying we won't do X and Y as part of our business"* – Interviewee #4

[23] As noted at a more global scale in Munck, Rosenschöld, J., Rozema, J.G. and Frye-Levine, L.A. (2014), "*Institutional inertia and climate change: a review of the new institutionalist literature"*. WIREs Clim Change, 5: 639-648. doi:10.1002/wcc.292 or Dagnet, Y., Northrop, E. and Tirpak, D. (2015) 'How to Strengthen the Institutional Architecture for Capacity Building to Support the Post 2020 Climate Regime'. Working Paper. Washington, DC: WRI

[24] *"I haven't looked at it in years…what I have looked at is the code of conduct in terms of how we should be behaving, the Nolan Principles"* – Interviewee #7, *"I would say I'm fairly unfamiliar"* – Interviewee #4

[25] *"The problem is where the power lies, because the power lies with the client, because they're paying the bills"* – Interviewee #3; [on a road dualling] *"There was never a 'we shouldn't be bidding for this work'"* – Interviewee #4

[26] *"There are projects we won't bid for because it's too risky, we don't think that's the right way forward… In all of it it's [Company's] reputation we're putting on the line if we're putting [Company]'s name on the report so we won't just do what the client asks us to do…even if that means we don't win work"* - Interviewee#2; "*Doing the right thing. Doing it to a good standard. Doing it in a way that enhances the reputation of the company"* – Interviewee #4

[27] Such as in Financial Reporting *https://www.frc.org.uk › financial-reporting-lab › climate-related-disclosures*

[28] Lawlor, R. & Morley, H. *"Climate Change and Professional Responsibility: A Declaration of Helsinki for Engineers"* Sci Eng Ethics (2017) 23: 1431. https://doi.org/10.1007/s11948-017-9884-4

[29] *"I do see it on tenders…is looking a bit more about CSR.. I don't think we ever answer that question very well but I don't think you might ask the questions but you never then take it on"* – Interviewee#2 Private Sector

[30] "*Institutions never do mandatory courses…we're in a very serious position right now and we're at the point where if we don't make decisions now, it's going to be too late. Institutions should say for all chartered members they have to do a course on alternatives to carbon-heavy solutions we're used to as an industry…I wouldn't have felt in a position to say to a client this is a viable alternative"* – Interviewee #3; "*A junction widening scheme of £5m, produces in the region of how many swimming pools of CO_2 per year or something...stats like that…. There might be a case for making 'road widening, what is the true cost"* – Interviewee #6; "*Perhaps clearly defined things in no more than 20 or 30 seconds, how do you use the code of conduct to help inform decisions*" – Interviewee #7

[31] "*The more we communicate with eachother the better…the more you can learn from eachothers mistakes and communicate how to get things done quickly the better"* – Interviewee #7

[32] "*I think we should be looking to integrate more successfully locations of development and project more generally, what we're massively lacking in this region is an infrastructure plan"* – Interviewee #1

[33] *"It is supposed to be a democratic system we operate in, if the people of [authority] decide their priorities are more roads and new bridges or whatever it might be, who are we to argue?"* – Interviewee #6

[34] See Newcastle City Council Climate Change (https://www.newcastle.gov.uk/our-city/climate-change-newcastle/what-are-we-doing-about-climate-change) or for a practical example https://democracy.newcastle.gov.uk/documents/s147391/6.%20AQ%20cabinet%20report%20FINAL%20clean%20004.pdf Section 4.5

[35] This is discussed by Dr Rachel Aldred (2015) in 'Is the BCR just MGIF?' http://rachelaldred.org/writing/thoughts/is-the-bcr-just-mgif/ and the challenge here is noted with regard to air pollution on p41 of 'Evaluating the economic and social impacts of cycling infrastructure: considerations for an evaluation framework' (2016) Technopolis for the DfT https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509391/evaluating-economic-social-impacts-cycling-infrastructure-evaluation-framework.pdf

[36] *"You can also try and provide your politicians with the information they need to be able to support them in being bolder in what they will and won't allow…if we can empower them with the knowledge, the enthusiasm and the vigour to stand up for some of these things then our job becomes a hell of a lot easier to do"* – Interviewee #7

[37] Such as architecture https://www.architectsjournal.co.uk/news/climate-crisis-should-architects-still-be-designing-airports/10045408.article?utm_medium=Social&utm_source=Twitter#Echobox=1574952707

[38] The Guardian (2019) *'Leading Australian engineers turn their backs on new fossil fuel projects'* https://www.theguardian.com/environment/2019/oct/21/leading-engineers-turn-their-backs-on-new-fossil-fuel-projects

[39] "*It would used by some people as a means of getting out of work by stating 'that is against my belief system'"* – Interviewee #7; "*If you go too far it starts affecting how you're viewed professionally, you are paid by that company in order to do work, you're not there to cherrypick the work that you want"* – Interviewee #3 ; *"In some ways money talks doesn't it in a sense? We all want our employment… in some ways the bigger*

schemes, the bigger junctions it's a point of professional pride as well isn't it?" – Interviewee #6

[40] *"We won't drive the decision and say you can't dual that road, that will still come from the politicians"* – Interviewee #4*; "We always have to be mindful of the politics of it, probably, it's a difficult one, is it an officers place to say no? Well we provide advice don't we? We can point out there's significant negative impacts…"* – Interviewee #6; *"In a sense, being a consultant, employed by a client, you're kind of in the wrong part of the chain…by the time it got to me the decision had already been made anyway"* – Interviewee #3

[41] [41] Buchan, K. (2018) *With a set of principles, we can make transport planning a more respected profession* Local Transport Today, 22nd June https://www.transportxtra.com/publications/local-transport-today/news/58171/with-a-set-of-principles-we-can-make-transport-planning-a-more-respected-profession

[42] In the same style as the CIHT/RTPI/TPS Better Planning, Better Transport, Better Places report https://www.ciht.org.uk/knowledge-resource-centre/resources/better-planning-better-transport-better-places/