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Synergies and Goal Conflicts for Climate Change Policy and Spatial Planning

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1 ABSTRACT

The purpose of this paper is to identify goal conflicts – both actual and potential – between climate and social policies in government strategies in response to the growing significance of climate change as a socio-ecological issue (IPCC 2007). Both social and climate policies are political responses to long-term societal trends related to capitalist development, industrialisation, and urbanisation (Koch, 2012). Both modify these processes through regulation, fiscal transfers and other measures, thereby affecting conditions for the other. This means that there are fields of tensions and synergies between social policy and climate change policy. Exploring these tensions and synergies is an increasingly important task for navigating genuinely sustainable development. Gough et al (2008) highlight three potential synergies between social and climate change policies: First, income redistribution – a traditional concern of social policy – can facilitate use of and enhance efficiency of carbon pricing. A second area of synergy is housing, transport, urban policies and community development, which all have potential to crucially contribute towards reducing carbon emissions. Finally, climate change mitigation will require substantial and rapid shifts in producer and consumer behaviour. Land use planning policy is a critical bridge between climate change and social policy that provides a means to explore the tensions and synergies that are evolving within this context. This paper will focus on spatial planning as an opportunity to develop strategies to adapt to climate change, and reviews the challenges of such change.

Land use and spatial planning involve the allocation of land and the design and control of spatial patterns. Spatial planning is identified as being one of the most effective means of adapting settlements in response to climate change (Hurlimann and March, 2012). It provides the instrumental framework for adaptation (Meyer, et al., 2010) and operates as both a mechanism to achieve adaptation and a forum to negotiate priorities surrounding adaptation (Davoudi, et al., 2009). The acknowledged role of spatial planning in adaptation however has not translated into comparably significant consideration in planning literature (Davoudi, et al., 2009; Hurlimann and March, 2012). The discourse on adaptation specifically through spatial planning is described as 'missing' and 'subordinate' in national adaptation plans (Greiving and Fleischhauer, 2012),'underrepresented' (Roggema, et al., 2012) and 'limited and disparate' in planning literature (Davoudi, et al., 2009). Hurlimann and March (2012) suggest this may be due to limited experiences of adaptation in developed nations while Roggema et al. (2012) and Crane and Landis (2010) suggest it is because climate change is a wicked problem involving an unfamiliar problem, various frames of understanding and uncertain solutions. The potential for goal conflicts within this policy forum seem to outweigh the synergies. Yet, spatial planning will be a critical policy tool in the future to both protect and adapt communities to climate change.

2 INTRODUCTION

There is a strong scientific consensus that climate change is happening, that it is the result of human activity, that it is global, cumulative and destructive of human and environmental well-being (IPCC, 2007; Patz, J. and Kovats, 2002). However, this scientific consensus has not led to any meaningful coherence between economic and social policy, planning laws and climate change policy in developed countries like Australia (Koch, 2012; Gough, 2011). Without an integrated public policy framework and an inclusive approach to planning the vision of fair, prosperous and sustainable urban and regional communities will not become a meaningful reality (Gough, 2010, Stern, 2009). The broad policy challenge is to create conditions for human flourishing within the ecological limits of a finite planet (Jackson, 2009). Meeting this challenge will require the social and planning dimensions of public policy to be integrated with the environmental dimension. The integration of these policy dimensions in the critically important policy domain of land use planning presents a significant opportunity for synergies and goal conflicts to develop.

While this problem of coordination is acknowledged by some scholars, there is as yet little empirical research being done to understand the dynamics between economic, social policy/planning and

environmental policies and programs. In part, this is a problem of competing paradigms and knowledge systems, a clash between dominant economic models that have reached their ecological limits on one hand (Jackson, 2009) and scientific discourses that struggle to engage and incorporate the knowledge of local communities on the other (Whatmore and Landstrom, 2011). The result is increased uncertainty and knowledge controversy. What will be needed to address this uncertainty are more deliberative planning processes and more radical policy solutions, which can not only tackle the social equity and justice issues but also improve energy performance, land-use planning and reduce reliance on carbon based energy consumption. The purpose of this paper is to identify and explore existing and potential goal conflicts in pursuing social and economic objectives and climate change goals within the policy field of land use planning. This is done to aid in building synergies and minimising conflicts between environmental, economic and social policies and integrating principles of justice and sustainability in planning in the context of climate change. Section 2 identifies three macro scale approaches to social policy and climate change; Section 3 explores the role of and various approaches to land use planning in the context of climate change; Section 4 identifies three categories of goal conflicts; and finally, Section 5 suggests a role for planning in dealing with goal conflicts and knowledge controversies generated by competing policy paradigms and policy objectives.

3 CLIMATE CHANGE AND SOCIAL POLICY

Governments confront climate change with varying degrees of willingness to change economic, planning and social policy directions. In terms of social policy and climate change Gough (2011) identifies three scenarios which that provide some useful macro analytical tools. The first scenario, 'irrational optimism', is associated with freer markets and technological optimism and exemplified by mainstream Republican positions in the US. The prevailing idea is that economic growth will 'equip future populations to cope with climate change, mainly through adaptation …' (Gough 2011: 16). Favoured solutions are first and foremost deregulated drilling for oil in combination with some federal subsidies and loan guarantees for alternative energy sources, in particular nuclear energy, as well as carbon capture and storage.

The second scenario is 'green growth' or ecological modernisation, to which most European countries subscribe (Gough, 2011: 18). The incorporation of environmental interests, including climate change mitigation, will require a much more active state or 'a return to planning' (Giddens, 2009) to set goals and targets, manage risks, promote industrial policy, re-align prices through taxation and regulate externalities otherwise neglected by business interests. Especially in circumstances of financial crisis, economic recovery is seen to demand public investment, and this should be targeted towards energy security and low-carbon infrastructures. By reducing energy costs and reliance on the fragile geopolitics of energy supply, providing jobs in the expanding 'green' sector and meeting carbon emission reduction targets, the intention is to achieve synergies between economic, ecological and welfare goals.

While the second scenario in Gough's (2011) typology argues for an essentially Keynesian and green reorganisation of the economy, the third scenario questions economic grow per se. It is this scenario that involves more radical policy change and coordination. In 'slow-growth' approaches, researchers such as Victor (2008) and the UK Sustainable Development Commission stress the distinction between relative and absolute decoupling of GDP growth and CO2 emissions, the former referring to 'decline in the ecological intensity per unit of economic output' (Jackson 2009: 48). While emissions decline relative to GDP in some countries, they do not do so in absolute terms. To stabilise CC at the levels of relatively optimistic assumptions, emissions would need to decline absolutely. There is as yet no empirical evidence that this is being achieved (Garnaut et al 2009; Gough 2011). However, it is important to assess to what extent governments follow welfare and social policy strategies 'beyond growth' – that is, their preparedness to initiate a controlled transition towards a low or no growth strategy. This will mean going beyond what Hamilton (2003) calls the 'growth fetish', which he defines as the unchallengeable consensus that the overriding objective of modern government in developed countries must be continued economic growth.

Acknowledging the limitations of economic growth raises fundamental philosophical questions about what constitutes a 'good life' and 'the good society' within the ecological limits of a finite planet. Sen's (1984) early work on the 'living standard' is a useful point of departure for an adequate understanding of welfare and wellbeing under slow-growth conditions, where he argues that the material requirements for physiological flourishing tend to be fairly similar in all societies and that reported life satisfaction has

remained more or less unchanged in most advanced economies over several decades in spite of significant economic growth. Further insights are provided from philosophers such as Soper et al (2009), who argue that consumer society has already passed a critical point where materialism is now actively detracting from human well-being, and psychologists such as Kasser (2010; 2011), who provides evidence that people with higher intrinsic values are both happier and have higher levels of environmental responsibility than those with materialistic values. What is consistent across these frameworks is an appreciation that societal well-being needs to be defined in ways that are not only focused on the distribution of wealth, but also the distribution of time and opportunities not instrumentally tied to labour market status or potential for profit.

Developing these capabilities and measures will require public dialogue and debate about risk management, and the role of government, markets and civil society in climate change adaptation, the design of cities and regions and community and individual well-being. What is clear is that science cannot be the ultimate authority to settle these policy and value conflicts (Gottweis, 2003). It is this acknowledgement that underpins deliberative policy making and planning, an approach that seeks to keep problems and issues contestable (not to deny their controversial character), and ensure that the boundaries between experts and non-experts and between science and non-science are more permeable (Healey, 2003; Gottwesi, 2003). This deliberative and discursive approach to policy analysis and planning will inform climate change governance at the national and sub-national levels, as it moves beyond traditional policy analysis and 'top-down' planning and it has the potential to build inclusive public understandings, climate change strategies and redistribute scientific knowledge.

However, the challenge extends beyond a democratic and discursive approach for land use planning. Land use and spatial planning, as a method of moving knowledge to action, has inherent conflicts as a policy tool. These conflicts often occur at the substantive level, where spatial planning is a broad instrument that affects many aspects of the community such as affordable housing, economic development, hazard zoning, and environmental protection. This broad application is a strength of land use planning as it integrates important community goals into one vision. Yet, substantive elements within a plan often conflict: economic development with environmental protection; affordable housing with single family zoning restrictions; and hazard protection with tourism development. The paradoxical nature of planning is to both constrain and liberate land owners: to protect individual property owners from infringement, and yet act in the greater community interest. If we extend this range of conflict to include climate change the task becomes considerably more complex.

4   CLIMATE CHANGE AND LAND USE PLANNING

Land use and spatial planning involves the allocation of land and the design and control of spatial patterns. The United Nations and European Commission define land use planning as 'the systematic assessment of physical, social and economic factors in such a way as to encourage and assist land users in selecting options that increase their productivity, are sustainable and meet the needs of society' (UN, 1993; EU, 2006). The world bank similarly defines land use planning as 'a public policy exercise that designates and regulates the use of land in order to improve a community's physical, economic, and social efficiency and well-being' (WB, 2010). These definitions identify the broad range of factors which land use planning must consider and the ambiguous goals of sustainability, meeting the needs of society, efficiency and well-being. This broad scope underpins the opportunity for conflicts and synergies between the various and equally legitimate goals and policies of land use planning and the emerging 'adaptation turn' in planning.

Climate change introduces and intensifies a range of spatial impacts on settlements and results in dimensions of change and uncertiainty in the social, environmental and economic context of human activities. Existing spatial configurations, particularly urban areas are both significant contributors to climate change and highly vulnerable to climate change (UN Habitat, 2010). Spatial planning is identified as being one of the most effective means of adapting settlements in response to climate change, particularly flooding associated with more frequent storm events and sea level rises (Hurlimann and March, 2012). This is generally argued on the basis of the spatial dimension of climate change impacts and the ability of planning to facilitate anticipatory action and cross-sectoral coordination. The critical role of planning in relation to climate change is recognised in both climate policy literature (IPCC, 2007; Stern, 2007) and spatial planning literature (Crane and Landis, 2010; Davoudi et al., 2009; Wilson and Piper, 2010). As Priemus and Davoudi (2012, p1) urge, urban planners need to revisit their traditonal concepts, methods and ways of thinking. However the

acknowledged role of spatial planning in adaptation has not translated into comparably significant consideration in planning literature or practice (Davoudi, et al., 2009; Hurlimann and March, 2012). The discourse linking adaptation and spatial planning is described as limited and disparate (Davoudi et al., 2009), sparse (Blanco et al., 2009), underrepresented (Roggema, Kabat, et al., 2012) and a paucity (Hurlimann and March, 2012) in planning literature and missing' and 'subordinate in adaptation plans (Greiving and Fleischhauer, 2012).

The exact nature of the role planning plays in relation to climate change adaptation comprises two complementary capacities. First spatial planning is expected to provide the instrumental framework or delivery mechanism to implement strategies and measures to influence spatial development patterns in a way that reduces vulnerability and increases resilience (Meyer et al., 2010). Second spatial planning is suggested to provide a forum or arena to negotiate priorities, explore options and create synergies between adaptation and at times conflicting mitigation and sustainability objectives and social and economic goals (Biesbroek et al., 2009; Davoudi et al., 2009). The first is an outcome oriented technical task while the second is a process oriented socio-political task. Davoudi et al., (2009, p16) explains that 'Spatial planning can play a pivotal role not just as a technical means by which climate change policies can be delivered, but also as a democratic arena through which negotiations over seemingly conflicting goals can take place, diverse voices can be heard, and place-based synergies can be formed'. These roles reflect top-down synoptic and bottom-up communicative approaches grounded in traditional planning theory (see Allmendinger, 2009).

The broader climate change science and policy literature emphasises the role of planning as an instrumental framework and delivery mechanism, while the planning literature is more likely to consider planning's role as a democratic forum or arena. However the merits of a more direct implementation approach verse a participatory approach in the context of climate change is contested. For example Dymen and Langlais (2013) argue that a more direct calculation and implementation of adaptation measures is required while Bulkeley (2009, p294), challenges the notion that spatial planning can provide a linear translation and delivery of top gown policy goals: 'Spatial planning should not be considered as a delivery mechanism for climate change policy. Rather, what it means to respond to climate change is defined, contested and made material through processes of negotiation and conflict'. In its capacity as a communicative and participatory forum for negotiation, the potential for goal conflicts is recognised and the capacity of planning to consider and resolve these conflicts is emphasised.

5 GOAL CONFLICTS

In negotiating climate change and social policies, governments often have to deal with contradictory goals (Jessop, 2002). Three levels of goal conflicts are identified: (1) philosophical conflicts between different ways of thinking and different fundamental values, (2) policy conflicts which involve incompatible or competing policy objectives, and (3) instrumental and implementation conflicts which involve incompatible or competing approaches to implementation. These categories of goal conflicts are interrelated. A philosophical conflict for example often leads to subsequent policy conflicts and instrumental and implementation conflicts.

Conflict Type	Explanation	Conflict Between:
Philosophical Conflicts	Divergent Approaches to Planning	Different Planning Cultures Different Planning Rationales
Policy Conflicts	Incompatible Policy Objectives	Social Wellbeing Objectives Economic Development Objectives Environmental Protection Objectives
Instrumental and Implementation Conflicts	Incompatible or Competing Approaches to Implementation	Different Timeframes Different Spatial Scales Different Governance Structures Different Resource Allocation

Figure 1: Goal conflicts in planning for climate change

5.1 Philosophical Conflicts

Philosophical conflicts involve different ways of thinking and different fundamental values. Various rationales have been provided as justification of the legitimacy and value of planning. These are important because they not only explain the reason planning is needed but underpin concepts of how planning is should be undertaken. Public interest rationales (Klosterman, 1980; Campbell and Marshall, 2002) support planning based on notions that some actions are in the common interest and general welfare of society. Social justice

rationales (Davidoff, 1965; Markusen, 2000) pursue some sense of equity and see planners as advocates who represent the interests of and facilitate the involvement of marginalised and underrepresented groups. Economic rationales (More, 1978; Klosterman 1985) identify planning a having a legitimate role in cases of market failure such as in public goods, externalities and high transaction costs. The underlying rationales dictate to some degree whether planning is primarily concerned with serving a collectively held interest, combating conditions of inequity and injustice or in correcting market failures. These different rationales not only underlie different approaches to planning but are linked to the different scenarios discussed in Section 2: irrational optimism, green growth, and slow growth.

Each rationale can be seen to support a consideration of climate change in planning. Action on climate change is in the public interest in that it impacts the whole of society. It is also supported in terms of social justice because impacts are disproportionally felt by the socioeconomically disadvantaged groups, (Leichenko and O'Brien, 2008) of instance observe that patterns of climate change vulnerability correlate with patterns of socioeconomic vulnerability originating from neoliberal globalisation. From an economic perspective climate change is an uncontrolled externalities and a stable climate can be construed as a public good. However conflicts arise from the divergent focus of each rationale.

Value conflicts do not need to be well defined and distinct. Even amongst the planning profession – value differences abound. Stead (2013) identifies forces of convergence and divergence in spatial planning in Europe and argues that path dependency and planning cultures can operate as a force against convergence. The importance of planning cultures and their impact on decision-making is poorly understood in the literature (Stead, 2013). Indeed, the value and cultural differences provide both opportunities for conflict and poor integration of policy to application.

5.2 Policy Conflicts

Policy conflicts involve incompatible or competing policy objectives. Planning may fail to deliver climate change policy goals because of the number of planning concerns which involves diverse social and economic objectives. Bulkeley (2006, 2009) argues that the adaptation agenda may cause tensions between other legitimate dimensions of planning, and notes cases where conflicting planning objectives have obstructed climate change mitigation and adaptation and increased levels of vulnerability. This occurs when adaptation objectives such as the development of renewable energy infrastructure and limiting development on floodplains conflict with, and are subordinated by other legitimate planning objectives such as visual amenity and provision of affordable housing through spatial planning processes (Bulkeley, 2009). Tensions can also exist between mitigation strategies and adaptation strategies and perusing one independently may hinder the other (Biesbroek et al., 2009; Howard, 2009).

Other planning objectives can compete with and constrain adaptation. This occurs when, due to the breadth of planning concerns and the scarcity of planning resources, other planning objectives compete with adaptation objectives for priority and resources (Measham et al., 2010). These situations are attributed by Owens and Cowell (2010) to competing interpretations of sustainability and the relative emphasis placed on the environmental, social and economic dimensions which ultimately originate from divergent concepts of the public good. Under these situations even if adaptation is supported at the strategic level it may not be successfully carried into implementation. And while the prioritisation and reconciliation of objectives is a necessary role of planning which may legitimately qualify the achievement of some objectives (Owens and Cowell, 2010), this process has historically resulted in an over prioritisation of economic interests and undervaluation of social and economic interests. Thus, perhaps the role of planning becomes focused on arbitration, as Greiving and Fleischhauer (2012, p.41) argue that at the policy level "the main challenge for planning is to identify synergies and conflicts between the different problems a city is confronted with".

5.3 Instrumental and Implementation Conflicts

As discussed earlier, planning and land use control are often comprised of inherent conflicts – and the role of planning is arbitrate the range of values. Thus, obvious differences in common substantive elements such as local economic development verses environmental protection are arbitrated at the Local Council level and decisions are made (or not made) to resolve or mediate the conflict. Even within common elements of a land use plan, such as transportation, the goal conflicts often result in conflicting instrumental outcomes between public transport and automobile use. Within this arena, larger scale issues such as sustainability are often

placed aside, and the public interest is reinterpreted for shorter term goals. Thus, large scale, poorly defined (by local eyes) concepts such as global warming are marginalised to a minor role compared to objectives which are perceived to be a more immediate priority.

Davoudi (2013) summarises planning tools and resources under four generic categories: strategies and plans, regulatory measures, resource mobilisation, and collaborative practice. The realm of conflict is vast at this scale – as planning is often viewed as the basis to resolve conflict – ranging from competing values within community plans, development priorities, and funding priorities. As Davoudi (2013) notes, planning at this level is effective if it can achieve collaboration across other policy instruments.

Instrumental and implementation conflicts include diverging views of the appropriate implementation time frames, spatial scales, governance contexts and resources. Romero-Lankao (2012) for example, considers local concerns, leadership and institutional capacity, the autonomy, resources and decision making power of local authorities and the inertia of cultural preferences as factors in determining how climate policy is translated from rhetoric to implementation. Conflicts at this level can occur despite high level strategic policy agreement because there are vastly different methods of implementation and different factors that impact operations. The levels of governance often conflict; national, state, and local governments need to have converging agendas. Resources are also a significant area of potential goal conflict, such as both the allocation of administrative resources within planning authorities and the allocation of land according to specific policies.

6 CONCLUSION

The application of land use planning to adaptation strategies for climate change is complex. If land use planning is to be one of the mechanisms to implement climate change adaptation, then internal conflicts in the policy and implementation frameworks must be recognised. Without this acknowledgement and resolution of these goal conflicts – spatial planning will be ineffective as an implementation tool. Within this context 3 levels of conflict are identified: philosophical, policy, and instrumental/implementation. Each level is interrelated; certainly the philosophical basis of a policy impacts its implementation (for example, neoliberal market oriented approaches). If planning is to be effective as a platform to respond to climate change: (1) actual and potential goal conflicts need to be recognised and explored (2) land use planning needs to assume a communicative and participatory approach to negotiate and resolve goal conflicts at a local level to prevent paralysing knowledge controversies.

Planning tools based on climate science are critical resources in producing knowledge that can protect and help communities mitigate and adapt to climate change, but they will need to be implemented in such a way that involves close collaboration with affected parties in the community. In effect, the science behind spatial planning and other climate change tools needs to be 'democratised'. New forms of public engagement will be required, beyond the traditional one-way consultation involved in typical planning and policy development cycles (Healey, 2003; Fischer and Forrester, 1993). As Yeardley argues (1999: 863) in terms of climate models and planning tools, "…to build robust and legitimate models, public bodies will need to devise methods of consultation and participation not only when the model is running, but also in setting out the objectives and parameters of the model in its earliest stages". It is this kind of deliberative reasoning and network approach to governance and decision making that will be required to address goal conflicts and improve policy coherence between land-use planning, social policy and climate change.

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