

Retrospective perspectives

Malcolm DOUGLASS 1

¹ Malcolm Douglass, a professional planner and former Chief Executive of the Canterbury United and Canterbury Regional Councils, Director of Planning at Porirua City Council and lecturer at Lincoln University, was made a Fellow of the NZPI in 2009 (douglass.m@clear.net.nz).

Introduction

Over 50 years, as we moved from house to house, I have carried an increasing number of cartons of my personal technical papers. Shifting to Nelson, following the Christchurch 2010 and 2011 earthquakes, gave me the incentive to sort, jettison and index the balance of my archives which have now been lodged in the Macmillan Brown Library at the University of Canterbury. I have also put this record together because I observe that, as a consequence of local government's rocky journey since 1989, the institutional restructuring in the 1990s, then the 2011 earthquakes, there are now few people left, in local government in Christchurch, with the institutional history and knowledge or the responsibility to maintain such archives.

In this age of 'IT' and 'www information' I still find the paper record provides a shape and a convenient physical and consecutive record of what has been an interesting professional life. I have been lucky to have spanned the transitions from WW II into the new millennium and to have worked with so many fine professional people in central government, local government and consultancies.

The archive of 193 items reflects 60 years of practice as a professional planner/engineer whose experiences have focused on:

 The evolution of the engineering profession (especially in transportation planning).

- The evolution of town planning (regional/district planning and resource management).
- The evolution of the institutions of local government (cities and regional authorities).

This archive includes papers which I wrote and presented personally, to conferences, seminars, talks, and press comments. These are my own papers, as distinct from reports and correspondence generated by normal corporate 'office work'.

In this, which is also the concluding paper (item 184) in the archives, I refer to 37 items which are the more significant papers supporting the five main topic areas. These areas are:

- a. Mentoring and early navigation
- b. Christchurch and transportation planning
- c. Regional, urban and environmental planning
- d. Local Government functions and reform
- e. University lectures

In the process of this filing I have come to some conclusions, which I record here for the information and background of any researcher who may pass this way:-

Topic A. Mentoring and Early Navigation (1954 - 1963)

Perchance in November 1954 I gained a position as a staff engineer in my home town of Wanganui. In this working environment I learned, in a few short years, much about drainage, roading, water supply, structures buildings, municipal engineering with all its complexities, contracts, estimates and budgeting. I can recommend such a small city training environment to any young professional engineer. I was challenged by a wide range of issues and I enjoyed the guidance of my masters as I gained experience in design and construction. I also gained an understanding of engineering in NZ, as shown in my university paper 'The Deployment of Professional Engineers in NZ.' - Templin Scroll prize ((Item 1)1956).

In 1961, with the Wanganui City Engineer's and Council's support I went to Birmingham for post graduate experience in transportation. This provided the background for my paper 'Planning for Traffic in the United Kingdom.' - NZIE Paper Wanganui ((Item 13) 1962). During the 1962 to 1964 period I further explored the role of engineer in local government planning, design and public works. This lead to writing a lengthy paper which I presented to the Urban **Development Association's Wellington** conference in late 1964, titled 'The Contribution of the Engineer to City Environment.' ((Item 68)1964). This interest in the profession's activities persisted and, 40 years on, I researched and wrote 'A Wheel on Each Corner.' - A history of the IPENZ Transportation Group - ((Item 182) 2007).

By 1962 I had discerned that NZ local government was very short in its planning skills and while generally knowing 'how and what to do' most councils still had little technical or systematic methods for deciding 'why and where' they were heading. This was further exposed by the lack of town planning progress since the passage of the 1953 Town and Country Planning (T&CP) Act. This situation convinced me that I should leave the engineering construction and building fields to focus on planning. From 1964 I became fully engaged in strategic and community, short and long term, planning. I outlined this philosophy in

an unpublished paper titled 'Local Government from Under The Table' ((Item 167) 1966).

Topic B. Christchurch and Transportation Planning

With this change in direction in mind, I applied for and was appointed as the first Regional Traffic Engineer to the Christchurch Regional Planning Authority (CRPA) in 1964. My brief was to prove and refine the outline for the regional road network and, on behalf of the six Christchurch Councils and the National Roads Board (NRB), to undertake the scheme planning for the proposed Master Transportation Plan. This was designed to meet the future needs of a Christchurch metropolitan area growing from 200,000 to 400,000 people. The CRPA had already undertaken its surveys, forecasts and analysis (as evidenced in the excellent book *Traffic in a New Zealand City* by W. B Johnston - 1965).

I arrived when the region was developing new partnerships between all the agencies involved in the scheme planning for the regional road network improvements, undertaken as part of the total regional planning for the Canterbury region. These were uncharted waters requiring inter-discipline collaboration across all public authorities. By 1966 we had accomplished some agreement on the network planning and motorway improvements, as explained in a paper to the Institute of Professional Engineers New Zealand (IPENZ) 'Traffic Planning and the Functions of a Road Network' - Rabone Award -((Item 20)1966). There followed a series of papers on technical design and programming. However, in spite of the quality of the work, the common sense nature of the recommendations that followed and many deputations and submissions, we failed to unlock central or regional funds adequate to accomplish the property purchases and construction programme for this wellconceived and economic network development for Christchurch.

In 1969, I managed the second review of the CRPA comprehensive transportation study, which was published in 1975 (CRPA Report 209). This study confirmed the basic principles of the 1962 Master Transportation Plan (MTP) and also considered a wider range of alternative urban

forms for the future: 'ChCh Second Transport Study - Objectives & Significance' - ((Item 27)1974). However following the initial 10 year (1962 to 1972) 'euphoria' and support for the MTP, the 'politics of resistance' began to build and by 1975 the Christchurch City Council's (CCC's) support and advocacy for the works involved was reducing. By the 1990s both Transit and the CCC had altered their position deciding, for political and funding reasons, to drop the inner urban motorways.

Twenty years later, the loss of support for the regional transportation plan and government's continued refusal to provide sufficient funds for property purchase, and new motorway construction, caused me to vent my anxiety with another IPENZ conference paper: 'Out Manoeuvred or Rejected?.' - Transportation Group Conference - ((Item 34)1982). In the same year the Automobile Association (AA) invited me to give a conference presentation to guide its policies for support of roading improvements and its relationship with government: 'A Way Ahead' -AA Auckland Conference - ((Item 35) September 1982). Both these papers were robust in argument and technically well founded in the evidence based on our actual experience of managing the agreed Christchurch Regional MTP over a 20 year period.

Subsequently in 1999, as an independent consultant, I volunteered a comprehensive review:

'Christchurch Road Network - Summary Review of 30 Years - 1959 to 1989' ((Item 39)1999) and also '40 Years of Travel and Change.'- Planning Quarterly Article - ((Item 41) March 2001). This was followed by a paper that described the 'lean and mean' scene of the 1980s & 1990s and the overdue recognition of the technical and political importance of transportation planning: 'Transportation Planning Renaissance' - IPENZ Conference - ((Item 42) September 2001). Then in an attempt to further 'beef up' the interest and commitment for this work two more papers: 'Transportation Planning Past, Present, Future in NZ.' - NZPI Hamilton ((Item 45)2003) and a paper to the important 1994 Transfund conference 'Toward Sustainable Land Transport': 'Sustainable Planning and Network Management'. -Wellington - ((Item 49) Nov. 2004). These papers

were all aimed at transport planners, planning practitioners, and politicians. They appeared to be understood and well received, but the principles espoused hardly caused a ripple.

By 2005 the plea for integrated and collaborative planning of transport for all modes had increased, especially following the adoption of the National Transport Strategy in 2002. In this desire for integrated and sustainable planning in 2010 I presented the paper: 'Potentials for Integrated Corridor Planning.'- NZIE Conference ((Item 58) March 2010). The many agencies, and different professionals involved, generally acknowledge the merit of the policies proposed in these papers and the need for greater collaboration and corridor protection recommended. However, the practicing as well as the salaried engineers and planners found the situation too difficult and could not face making the shift from their present 'conventional, expedient and short term' positions. Obviously an over-arching strategic framework to secure these longer term metropolitan planning objectives was going to be required.

The issues are complex but the active participants (both professional and political) have after 50 years still, not got beyond talking about the immediate congestion crisis and 'trouble spot' planning. They ignore the continuing loss of the future urban environment and longer term urban form issues. The present front line players see these solutions as 'too far in the future' and 'too costly in the medium (10 - 20 year) term'. I pleaded that it is only by getting it right in a 40 -50 year integrated planning context that it is possible to gain the benefits and look to long term equilibrium conditions of traffic and land use to achieve an improved environment in the long term. Even following the Christchurch earthquakes there is still no 'stomach' for the scale of investment required to purchase the corridors and carry out the recommended arterial route improvements necessary to allow the city to recover to the pre-quake population of 400,000, let alone to meet a metropolitan increase of 100,000 up to half a million or more in the longer term.

New Zealand is not alone in not meeting these environmental and funding requirements. In

2007 I presented a paper at the London Conference of Trip Rate Information Computer System (TRICS) to explain our progress in motorway scheme planning and also to canvas the similarities of Trips Database (TDB NZ) trip data research with that of TRICS (UK): 'One Transportation Planet.' - TRICS Conference London UK - ((Item 56)2007). The paper was well received and we found New Zealand and the United Kingdom have almost identical funding and programming difficulties. Our research also shows similar trip generation patterns. This knowledge is leading us to increased sharing of trip data base information, and similar techniques in corridor protection.

It is now 50 years since traffic engineering and the skills of transportation modeling and planning became available and began to be used as a matter of good technical practice. Regrettably, 50 years on, we find that the roads of national importance and other transport improvements are still being driven largely by the cost benefit of congestion and isolated 'trouble spot' relief. In the future, it would be hoped that more major projects would be selected and planned to meet the longer term strategic metropolitan urban form and planning needs. In this way, rather than being trouble spot decisions, they would be based on broader planning and environmental strategies. However, this situation requires that there is a renaissance in active longer term transport modeling as part of regional planning.

To put it bluntly:

- Since 1975 there has been an unfortunate scaling back of comprehensive regional transportation, land use and planning studies. The present Regional Land Transport Strategies (RLTSs) and National Land Transport Programmes (NLTPs) have been devised as a means of rationing limited funding of investments for existing short and medium term 'hot spot' improvements only. These works are not informed by agreed long term options for future regional urban form.
- Generally the city and district councils are reluctant partners and have been unwilling to initiate significant enhancements to their transportation

- networks. Frequently district plan designations and road proposals, if they run into strong citizen objection, are deferred, abandoned or left for a later generation to sort out. The regional necessity and longer term benefits get overlooked and forgotten.
- State highways have been left to the New Zealand Transport Agency (NZTA) and government to belatedly resolve new road designations on the eve of their construction. This leads to both more litigation, design compromises and results in lower quality environmental footprints and omits vital 'future proofing'.
- Over the past 50 years, transport improvements for all modes have been delayed compared with any reasonable plan. In that time the traffic volumes have trebled. However, the works that have been completed represent only 40% of need (i.e., just 20 years of the planned programme). Levels of traffic service have fallen, congestion has increased and the quality of environment continues to decline.

I conclude that Government must require the regions to re-establish small competent technical, regional urban planning and transportation policy teams, to undertake continuing long term future regional planning. In this way the regions can assist their councils by undertaking 40 - 50 year strategic planning studies of alternative options for land use and transportation solutions, and prepare sound and economic regional development plans which can inform future urban strategies and RLTS's.

Topic C. Regional, Urban and Environmental Planning

The planning experience and practice described in this part of the archive covers statutory planning, strategic planning, environmental impact, urban design and project planning. This includes district and regional plans I have prepared under all three planning Acts of 1953, 1977 & 1991. The following 1978 paper provides a background summary of regional and town

planning under the 1953 Act up to1977: 'Town Planning Evolution -1953 to 1977.' University of Canterbury Seminar ((Item 94)1978). The issues being addressed and some of the problems and principles were also well covered in the Action on the Environment Seminar organized by Victoria University of Wellington in 1972: 'Planning Urban Environment - some problems and principles.' - ((Item 89)1972).

The T&CP Act in 1977 placed greater reliance on setting objectives, improved public consultation and the removal of some of the earlier detailed prescriptive schedules. For regional planning authorities (and United Councils after 1980) the 1977 Act included a longer schedule of activities. In addition to the well established 'urban limits' and 'green belt' sections of the larger metropolitan regions, in the 1970s and 1980s some regions also undertook studies and prepared plans for transportation networks, forestry distribution, tourism infrastructure, recreation policies and energy resources.

In Canterbury and Waikato we also prepared Water & Soil Resources Management Plans: (Item 100) 'Water/Soil Conservation and Regional Planning Schemes.' - (1977). A paper of this title presented to the New Zealand Catchment Authorities coincided with a national turning point in the integration of soil and water management with regional plans. Subsequently, in 1979, our Waitaki River Catchment draft Water and Soil Resource Management Plan (WSRMP) was used as a workshop template by the National Water And Soil Conservation Organisation (NWASCO) at a Palmerston North course for catchment engineers and soil conservators: 'Generating a WSRMP, The Process of Selecting Objectives.' - NWASCO ((Item 106)1979)

Following the passage of the Resource Management Act (RMA) 1991 the previous regional schemes were all overtaken by new requirements and the preparation of new regional policy statements, which included both land and water planning. The new RMA district schemes were also of a different style and focused on measurable environmental effects, rather than planning and development design. This was described in my 1994 paper: *'Change in*

(Planning) Practice - RMA and Treaty issues.' - Wellington ((Item 130)1994).

Open space planning, including multi-purpose passive and active reserves, lake berms, river banks and transportation corridors, contribute to provide a very significant regional frame for urban form: 'The Influence of Open Space and Public Uses on Urban Form.' - NZPI - ((Item 86)1973). Regional landscapes need to be identified, their character and any policies for their protection and use must be clearly defined and strongly advocated, if they are to be achieved as I described in 1988: 'A Regional (Landscape) Perspective. '- Lincoln Seminar ((Item 117)1988). Another of the major environmental open space strategies is the distribution of forestry plantings: 'Farm Forestry Conference -Canterbury Regional Strategy.' - ((Item 120) 1990).

In the urban scene the framework for major transport corridors, parks and recreation requires the protection process to be planned 40 years ahead. This can be best achieved through regional plans. Experience shows the implications of these 'corridor' matters are too difficult for city and district councils to deal with on their own. Such issues while being of benefit to the suburbs are seldom welcomed by the 'local parish' because they may involve significant changes. To survive, the proposed corridors require the 'backbone' of wider regional agreements confirmed through approved regional plans: 'Protecting Corridors Now for the Future.' - Article for NZPI-PQ ((Item 141)2014).

Regional planning can also provide a vehicle to establish a regional planning databank and be the 'power house' for local government research and development, in partnership with the district councils. Unfortunately, since 1989 many councils have chosen to eschew the principle of collaborative relationships as envisaged in the 'Elwood triangle'. Experience clearly supports the validity of the triangular model for regional planning as part of local government as I stressed in: 'The Tides of Regional Planning.' - PQ Article - ((Item 140) December 2013).

Topic D. Local Government Functions and Reform

I have worked continuously in Local Government since 1954 and spent two thirds of my time being employed by regional councils and on regional studies and the balance working for city and district councils. As a regional adviser and a chief executive I have been involved in many seminars and regional development conferences since 1981. Wanganui had an early successful seminar: 'Sharing Initiatives Seminar.' - Report of Proceedings - Wanganui UC - ((Item 14) 15.10.1981). During the 1980s there were many genuine efforts by regional and united councils to expand the horizon and move to a more strategic view of the role of the regions as part of the local government scene. For Canterbury the track record went back 40 years to 1955 and it was being rapidly expanded in the ten years from 1979 -1989 prior to local government reform as described here: 'Ten Years Searching for Consensus.' - A Review of the CUC 1979-89 -((Item 157) 1989).

The local government reforms involved eight years of sterling effort by government ministries and senior officials, working with regional, ad-hoc authorities, cities and district councils large and small across the nation. It was a collaborative effort fully supported by central and local government. I reviewed this process in a paper to New Zealand Planning Institute (NZPI)/Royal Australian Planning Institute (RAPI) conference in Hobart in 1994: 'Change from the Leading Edge.' - Review of NZ Local Govt. Reform. - ((Item 159) 1994)

Following the local government reforms in 1989, there were many valuable seminars and I recall preparing the very successful Dunedin two day LGA Seminar for elected members: 'Working With Your Communities.' - 8 Papers Dunedin - ((Item 161) 5.3.1999). One of the important functions requiring collaboration between all three levels of government was planning the open space for national parks, recreation, roads, water areas and urban identity spaces. This aspect of partnership was the subject of the paper: 'Rebuilding (Recreation) Partnerships.' - to the NZIPRA.- ((Item 122) 1990).

The reforms plus the associated legislation, of the RMA 1991 and the Local Government Act (LGA)

2002, had a profound effect on the way councils went about their business. Since 2002, Local Government, both regional, city and district, have all had to accept a significant increase in budgets and costs on administration, consenting and enforcement activities. However, engineering facilities, redevelopment and renewals, urban planning and other creative design functions have suffered restraint and cut backs.

In terms of financial and asset management strategic planning local government has, uniformly, lifted its performance across the country. This has been described by many researchers, including Victoria University of Wellington (VUW) and Prof Claudia Scott's 'Local Futures Project'. Being part of the VUW 'local futures research' I commented on integrated planning in my article published in the NZ Planning Quarterly (NZPQ); 'LTCCPs on the First Round.' Local Gvt. strategic planning performance. ((Item 175)2007). In another 2007 paper I also outlined the current strategic framework and structures: 'Local Government and Planning.'- Lincoln University lecture - ((Item 173) 2007).

The restrained statement describing the function of regional councils outlined by the Canterbury Regional Council (CRC) 1990 broadsheet letter, was not accepted by the pragmatic councillors and the new senior officers appointed to many of the regional and city/district councils in the 1990s. 'Regional Councils - Their Role and Future'. - Canterbury broadsheet - ((Item 158)1990).

The 1989 promise of the triangular sharing of functions and a genuine respect for the regional planning dimension has steadily evaporated over the past 20 years. This was noted by Prof Ali Memon and myself in our joint paper to the Southern Crossings conference in Auckland in 2002: 'Reflections on 50 Years of Regional Planning in Canterbury' - ((Item 134) 2002).

Over much of the country, the regional and city councillors (and many of the officers) found, especially after Minister Warren Coopers 'prunings' in 1992, that it was convenient to ignore regional planning and get on with the business of catchment planning, water rights and environmental issues (such as water quality and

air pollution). However, the breadth of regional planning did receive recognition in the CRC 60th Canterbury Regional Jubilee Seminar held on the 19 November 2004: 'Canterbury Regional Planning Articles' PQ and The Press. — ((Item 136) Nov 2006). The three volumes of proceedings, including the 22 technical and historic papers delivered at the Jubilee Seminar, are available from Environment Canterbury (www.ecan.govt.nz).

From 2004, CRC's political crisis deteriorated further until in 2010, the Government stepped in and appointed commissioners. This was to principally focus on water management, with incidental responsibility for public transport, RLTS and air pollution. The broader range of regional planning functions (notably regional urban form) have consequently been omitted from the Canterbury regional programmes since 2010. These potential activities and ECan's institutional framework are no longer part of the CRC portfolio. The nature of regional council activities and its relationships with both central and city/district councils is outlined in my NZPQ paper: 'Regional Planning Relationships & Governance.' - NZPI ((Item 139) October 2013). A background to this paper is also on the NZPI Web site (www.planning.org.nz).

Overall, since 1989 it is a matter of some regret that regional councils have taken 'a real thrashing' from government politicians and bureaucrats, and also from city/district councillors. While there is a general respect for the regional water and soil functions, the same is not volunteered for other regional functions, in particular regional planning and regional development issues. By not maintaining adequate planning professional staff, the regional councils have also done themselves a dis-service in these respects. It appears there is now a need for information and education in central government, local government, universities and in high schools, on the fundamental importance of undertaking broadly based and comprehensive regional planning studies and plans. This education process has not been pursued by the regional councils themselves, the Ministry for Environment, or by our engineering, landscape and planning professions.

I have reached five conclusions regarding local government and the reforms:

(a) Government and Local Government Support for Regions. It appears that Government and Local Government (LG) have withdrawn from their commitment to the value of the 'triangular structure' envisaged in the local government reforms of 1989. This collaborative relationship requires further education and better understanding from all three sets of players, government-regioncity/district, their politicians and their officers. The current (2014) directives of Government, and the current schemes prepared by the Local Government Commission seem to be driven by 'banking' and 'efficient management' of LG infrastructure and assets. They do not appear to support improved regional planning or working with communities. It is essential that planning is seen as a priority function supported and undertaken in collaboration at all three levels of local, regional and central government.

(b) Mixed Representation for Regions is essential. From my experience, and as described in the papers included in this archive, I believe that every region must be administered by a free standing and independent authority. Due to the need for communication up and down the chain of government, regional authorities should be constituted with a council that has a mixed elected and appointed membership. This has been shown to be successful. I recall the value and stability provided by having some appointed government and community nominees on United Council's in the 1980s. This is the best solution. In the future, with government appointed nominees there could be a government budget contribution and also a delegation of appropriate functions from central government.

(c) Regional Planning, including Water Planning and Transportation Planning must be undertaken as one of the middle hierarchy planning functions. (Central -Regional - District/Community). Planning must be seen as the most senior function of regional councils. In addition to water and transportation, this may include indicative planning for 'regional resources', 'environmental standards', 'urban growth areas', 'redevelopment & urban renewal strategies', 'regional transportation strategies', 'regional development' and 'regional recreation areas'. These elements are fundamental long term regional planning topics that should be undertaken by an independent authority in healthy collaboration with government and local government in that region.

(d) Local Government must be Proactive. In the past 20 years councils have become shackled to approvals, enforcement, government audits and perceived legal obligations. They have, as a result, adopted a cautious approach purporting to conform to doing only those things required by legislation. This has resulted in a timid 'reactive' local government culture. Consequently, there has been a migration of skilled technical professionals from local government into the private sector. It should be remembered that the corner-stone objectives of both the 1989 and the 2002 legislation were to enable Local Government to have a 'proactive' relationship with government and also their local communities.

(e) Unitary Councils are not the answer. I am reminded of the observation of Graham Bush in 1993:

'The fragmentation of regional functions among extant district councils upgraded into unitary authorities is definitely not a model to be commended. Regardless of what party wins the approaching general election, the regional council sector needs, and is entitled to be given, the assurance of permanence and stability.' (Little has changed in 20 years!!)

Topic E. University Lectures

In the period from 1998 to 2010, after returning to Christchurch from Wellington, I undertook a mix of hearing Commissionerships for RMA hearings of urban boundaries, highway designations and significant zone changes to District Plans. One such was the 'Pegasus New Town' proposal at Woodend, which was a lengthy hearing in 1998 dealing with a 1,000 household development and a host of tangata whenua and other environmental issues, which warranted a lot of commissioner effort.

In addition, one or two volunteered special interests such as planning for the Christchurch Arts Centre, the authorship of *A Wheel on Each Corner* (being the Institute of Professional Engineers of New Zealand Transportation Group's history), support for the Theatre Royal and planning for the Cashmere Forest Park were all on the agenda. Some extracts covering these special interests are included in *Folder 14. Items 180 to 183*.

However, it was the University lectures that brought all these threads of planning and transportation together especially during the two terms in each year, between 1999 and 2009, when I was a part time lecturer at Lincoln University. In addition, I gave invitation lectures at Auckland, Otago and Canterbury on several occasions. A sample of these lecture courses is included as: *Topic E. Folder/Box 15 Items 185 to193 - University Lectures - Planning, Transportation and Local Government*.

The Lincoln University students were a joy with small classes of about 25 students. They were pursuing a Bachelor of Environmental Management under the guidance of Professor Ali Memon. The Lincoln transportation students were undertaking the Master of Professional Studies course under the guidance of Associate Professor Chris Kissling. I had occasion to write the lectures and collate the reading material included in the course books. The students seemed to enjoy the series and also worked willingly on the field assignments. In 2004, I prepared a set of four lectures: *Transportation Strategies, Environment & Corridor Planning: A*

Quartet of Papers by Malcolm Douglass, DCS Ltd – ((Item 193) 2004) (58pps) 1.Transportation Planning Past, Present & Future, 2.Land Transport Strategies, 3. Sustainability in Land Transport Planning, 4.Transportation Corridor Planning. I compiled this suite of four papers to embrace my 'standard lecture series' for wider use. (a bound copy of Item 193 is available from douglass.m@clear.net.nz on request).

My lecturing experiences convince me that the principles and solutions I have been pursuing, since the 1970s, may well emerge and become accepted practice when the next generation of professionals take over. In my own generation our energies were absorbed 'surviving with the present regime's conventional wisdom and the politics of existing government attitudes'. As a

whole, the current engineers and planners have not bothered to explore long term options for alternative urban forms and establishing environmental standards in design, as discussed in my lectures.

These longer term futures involve the collaboration of several professions including engineers, economists, sociologists, landscape designers as well as planners. But the initiative inevitably rests with the planning profession, who must rise to these longer term future challenges. Experience shows that regional indicative planning should be on a wide geographic framework and be undertaken by an independent regional planning authority so as to support both central and local government planning.