

**VISION SPLENDID – CITY / COUNTRY – BEST PLANNING
PRACTICES**

LOCAL GOVERNMENT PLANNERS FORUM

SYDNEY AND THE BUSH

**POPULATION DISPERSAL (DECENTRALISATION) AND
HYPERCOMMUNICATIONS AS A STRATEGIC RESPONSE TO THE
GROWTH OF METROPOLITAN SYDNEY AND CLIMATE CHANGE**

PAPER BY

**DR. PETER R JENSEN
FRAIA, FPIA, JP**

OCTOBER 2007

ABSTRACT:

This paper explores the potential of new telecommunications technology (Hypercommunications), to permit re-visitation of decentralization, a government planning policy that was employed thirty years ago with relatively little success. With the start of a new millennium, this has again become a potential response to the problem of increasing population growth of Sydney and the decline of towns in rural New South Wales.

Urban and regional New South Wales will have to face a range of major challenges over the next thirty years which, in part, will stem from population growth pressures in the Sydney Region coupled with the more obvious impacts of climate change. Public reactions to the Sydney Metro plan proposals for major urban redevelopment as part of this response, are expected to be progressively more antipathetic as the impact of high-rise, high-density housing is fully appreciated and open space, recreation facilities and transportation become progressively more overstretched, inhospitable and inaccessible.

Census data suggests that while Sydney continues to grow inexorably, at the same time an outward flow of persons of all ages is occurring. This movement appears to be related to the high cost of accommodation in Sydney and a search for better more comfortable environments, away from the problems of traffic congestion and an elevated cost of living on the Cumberland Plain.

As has already occurred, this outflow of Sydney urbanites has tended to concentrate along the eastern sea coast although, in recent times, movements inland to the west of the Great Dividing Range have also been noted. Responding to this population movement will demand the development of new planning attitudes and strategies for the location of population in the State of New South Wales associated with job creation and housing.

Direct involvement of both Federal and State Governments in this changing urban and regional environment is a prerequisite for a comfortable and equitable solution that will benefit the public at large.

1 INTRODUCTION

For many years, the phrase "Sydney or the bush" has reflected a reality of urban development in New South Wales in particular and Australia in general. This is that, a limited number of state capital cities have dominated the urban growth and development of the Australia over the last 150 years and to a considerable extent, this has occurred at the expense of regional and rural towns.

In New South Wales this unequal urban relationship has been further unbalanced by the growth of the Sydney Metropolitan Region as Australia's contribution to the emerging global city network structure of the rapidly developing world economy. No doubt this growth of the Sydney Region can be related to the economic benefits of co-location of business enterprise which seems to thrive on the availability of face-to-face meetings between senior executives.

However business operations are in the process of significant change as dependence on digital electronic facilities becomes a substitute for the middle management of earlier times. This in turn is intimately coupled to rapidly developing capabilities in interpersonal communication made possible by digital interconnection. For convenience, this enhanced form of personal synthetic communication has been referred to as Hypercommunications.

The capabilities of this new form of personal communication and its potential to change the locational ambitions of business enterprise, coupled with the potential to allow significant population dispersal from the existing State capital cities, is the subject of this paper.

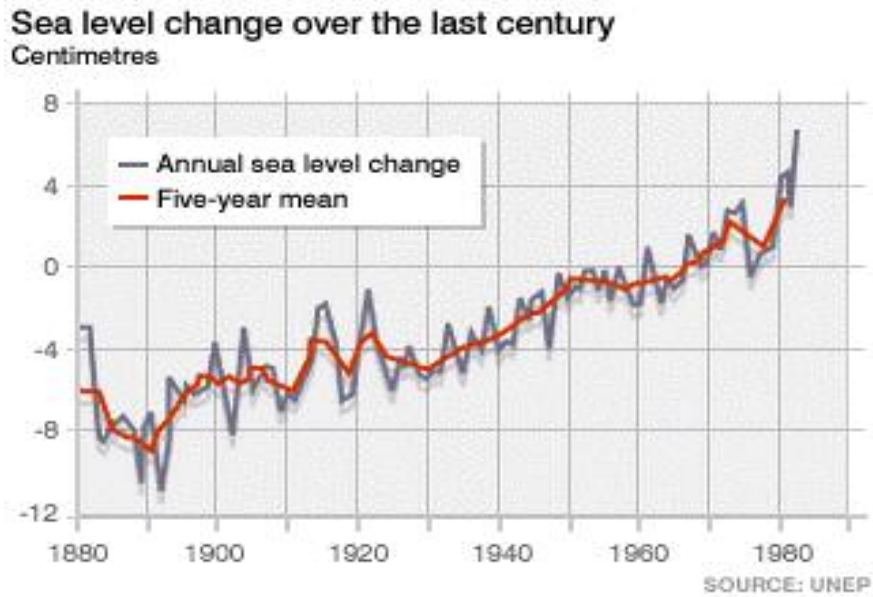
2 DISASTERS AND CLIMATE CHANGE

Unsurprisingly perhaps, demand for planning effort frequently tends to occur when disaster strikes and an intelligent and constructive response is required to deal with the problems that have arisen. Over the next three or more decades, it seems quite probable that an increasingly problematic and disaster filled environment will develop and spurred by public anxiety and demands, the need for skilled planning can be expected to grow rapidly. In this context, a significant disaster event has already been identified and is associated with the impacts of "Climate Change". See **Annexure 2** for extracts from the Stern Report (UK) Another well advanced, potential disaster, is the drying up of the oil supply by which most advanced nations continue to travel to work, in the main riding in private automobiles.

Of the many potential climate induced changes that may be seen as impacting on the activities of planners in New South Wales, as worrying as any is the potential increase in sea level that has been prognosticated as likely to affect many communities that lie in the coastal regions of the State. Although a subject of considerable dispute, there now seems to be general agreement in the scientific community, that increasing sea levels are a real and disquieting phenomena. In this regard, over an extended period, it has been established that the mean sea level as recorded at a variety of sites has been steadily increasing. This is indicated in **Figure 1** below and though sceptics are vocal in dismissing this type of change as slow and minimal on a geological scale, if the more extreme forecasts of ultimate level increase are to eventuate, then large areas of the coastal regions of New South Wales could expect to be inundated. Moreover, the impact in the Pacific Basin is also an issue that may tend to have local repercussions that will impinge on the environment in which planners will have to operate.

While at present, the extent of increases in sea level may appear to be slight and as indicated in the **Figure 1** below, there can be no assurance that this rate of change will

remain steady, particularly if the observed rapid break-up of Antarctic and Greenland ice masses continues as at the present.



F1 SEA LEVEL CHANGES OVER THE LAST 130 YEARS

While the direct impacts of climate change on the atmosphere, on the sea and on land will be serious enough, it is quite probable that the socio economic responses to such change will present planners in government and in the private sector with major challenges as well. In particular, the impact of rising sea levels in the Pacific Basin may have serious repercussions for the habitability of island communities, with a consequent demand for population relocation as the most obvious manifestation. See **Figure 2**.



F2 BOAT PEOPLE – RISING SEA LEVEL REFUGEES

Material emanating from the Australian Bureau of Statistics demonstrates the existing attraction of State capital cities for newly arrived migrants. Moreover, a population growth

scenario based on an extreme marine response to climate change, suggests that Sydney would constitute the most attractive location in Australia for such new arrivals. As a response to its political and economic stability, in the face of increasingly detrimental impacts of climate change, Australia may well come to be seen as a safe haven or great Ark, floating between the waters of the Indian Ocean and the Pacific.

Depending on the pace at which Climate Change and associated sea level rises occur in fact, New South Wales and Sydney in particular might well see a significantly increased rate of population growth as compared with present levels assumed as the basis for the recently released Metro Strategy document, "City of Cities". Accommodating population growth in the Sydney Region in the future, depends in part on a strategic goal of massive urban redevelopment in the existing urban areas. Already, signs are appearing of how politically unpalatable such a policy is likely to be and, if it were to prove as unworkable as the 1950s "Green Belt" strategy, then the repercussions are likely to be very unpleasant and an alternative will need to be found.

At the present, the counterpoint to the urban redevelopment approach of the State Government, is to create a limited area of edge located residential growth, in the north west and south west. However, this type of urban development has been employed in Sydney in earlier times and led to the creation of some very disadvantaged suburbs in socio/economic terms. The experience of Mount Druitt and Blacktown could not be seen as a model that contemporary planners would be expected to follow as a contemporary solution to population growth. However, in the Metro Strategy is to be found exactly that type of arrangement, with the probability that, in the longer term, such areas will be even more geographically isolated and challenged in terms of social environment and service infrastructure than were the historical precedents set thirty and more years ago. It is noteworthy that the access to the Central Business District, CBD, of Sydney via heavy rail links is presently under review by the State Government and is likely to suffer from major as a consequence.

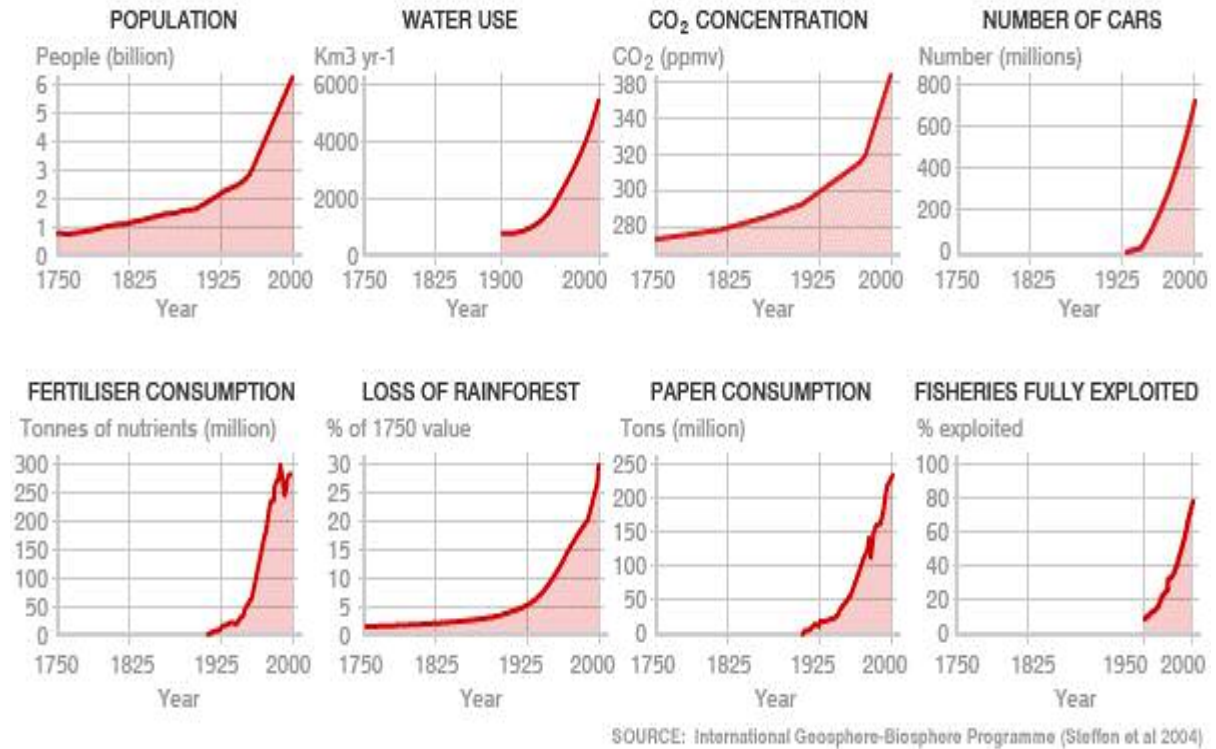
Such circumstances have caused the author to enquire whether an old solution to such problems deserves to be revisited, having regard to the fundamentally changed business environment that has developed over a thirty year period since the last attempt to employ "decentralisation" policies was abandoned.

3 CARBON DIOXIDE REDUCTION AND HYPERCOMMUNICATIONS

As is now generally accepted, the burning of fossil fuels and particularly coal, releases carbon dioxide, CO², into the atmosphere and this has the effect of raising temperatures on the earth surface and in the sea. See **Figure F3**. Such temperature increases over the last one hundred years are well documented and are believed by the majority of the scientific community to be the basis of extreme weather events that have been particularly evident over the last five years. As the **Figure F4** below indicates, near surface land temperatures have been rising steadily over the last 140 years although it has been claimed by one participant in a recent ABC Forum, that in the last seven years, this growth has been arrested.

Temperature rises may be related to the destruction of ice masses as previously referred to and thus CO² is now seen by the scientific community and increasingly a nervous body politic, as the principal causation of this world wide change. As earlier observed, the implications for planning of cities and the regions appear to be potentially very significant and some appropriate strategic and tactical responses are discussed later. Travel both by land, by motor vehicles and in the air in jet propelled aircraft, is now generally accepted as a substantial generator of carbon dioxide gas. Self-evidently, efforts to reduce reliance on

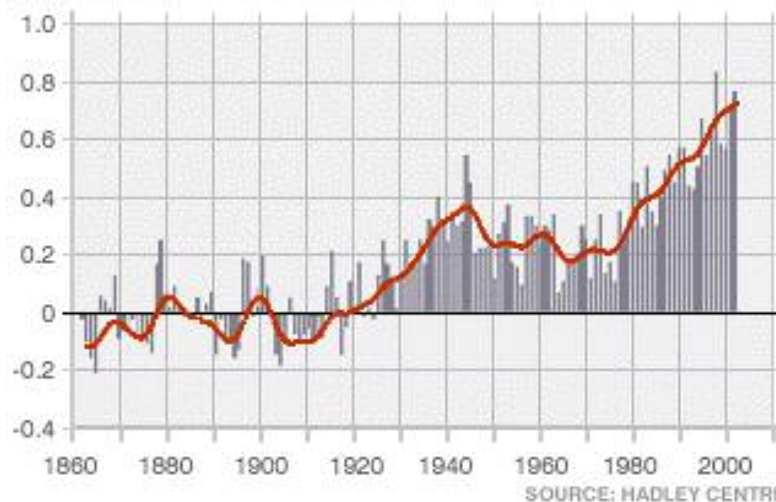
such forms of transportation will have a significant impact on the amount of CO² that finishes up in the upper atmosphere. However, apart from such atmospheric effects, fossil fuel as consumed in motor cars and trucks generates significant levels of direct particulate pollutants which have severe and destructive impacts on the health of people living close to major



F3 EVERYTHING RISING – POPULATION AND CARBON DIOXIDE IN PARTICULAR

Variations in global near-surface land temperature

Temperature variation in degrees C



F4 STEADILY RISING TEMPERATURE

thoroughfares and motorways. Such a situation is also seriously compounded by traffic congestion as the publicity images of Beijing preparing for the Olympic Games make clear.

An obvious contemporary response to the need to reduce travel via terrestrial and aerial transportation, is provided by Hypercommunications and it is unsurprising that, for various reasons including a search for an improved and less congested physical and atmospheric environment, there has been increasing reliance on working from home as a substitute for the daily chore of commuting to the Central Business District or to other distant places of work. This method of operation now has its own jargon title, Telecommuting, and in the USA where survey data is available, it is apparent that its growth has been quite marked over the last ten years.

As anyone who has operated on this sort of basis for any length of time can attest, the author included, the benefits of distance working, including Telecommuting, are very substantial. In the first instance, the time used in the journey to work can be gainfully employed, even where recourse to a modern, mobile telecommunications devices is available. The ubiquitous Blackberry may represent a high end business status symbol but the reality is that a full keyboard on a desktop computer is far easier to operate than punching the miniature keys of this otherwise useful device. Voice input and commands may change that situation in the very near future.

In the second instance, the removal of the significantly stressful exercise of travel in a crowded and environmentally unfriendly city is of particular benefit to mental health, quite apart from making a more or less normal family life possible. By contrast the commuting worker must frequently lose a significant portion of the day in exhausting and non-productive travel away from the family home. The counterpoint to this is the need to establish appropriate working conditions in the home office, where interruptions by children and other casual callers need to be strictly controlled.

4 POPULATION GROWTH IN THE SYDNEY REGION

As earlier noted, Australian Bureau of Statistics data indicates the extent to which population growth in the Sydney region is promoted by job attraction for newly arrived migrants and to this can be added the natural growth associated with demographic change. The Metro-Strategy for the Sydney Region, presented to the public at the end of 2005, took a median growth line as its forecast for population growth over the next thirty years. Based on this projection, with areas of low to medium density housing in the north west and south west, coupled with major redevelopment in the existing built up suburban area, it was suggested that the projected population could be accommodated in the available space.

Specifically, the western city edge development was proposed to include approximately 40% of the population growth over the period up to 2031 while the remaining 60% would be accommodated in redevelopment zones, mainly associated with existing transportation nodes distributed around the Cumberland Plain. This was based on a recognition that if the present density of suburban development to be found in Western Sydney became the basis of purely conventional edge located "sprawl", then with an anticipated growth of the metropolitan population to 5 million persons over the next 23 years, the whole of the Cumberland Plain would be filled to capacity with housing. This situation is reflected in the accompanying **Figure F7**.

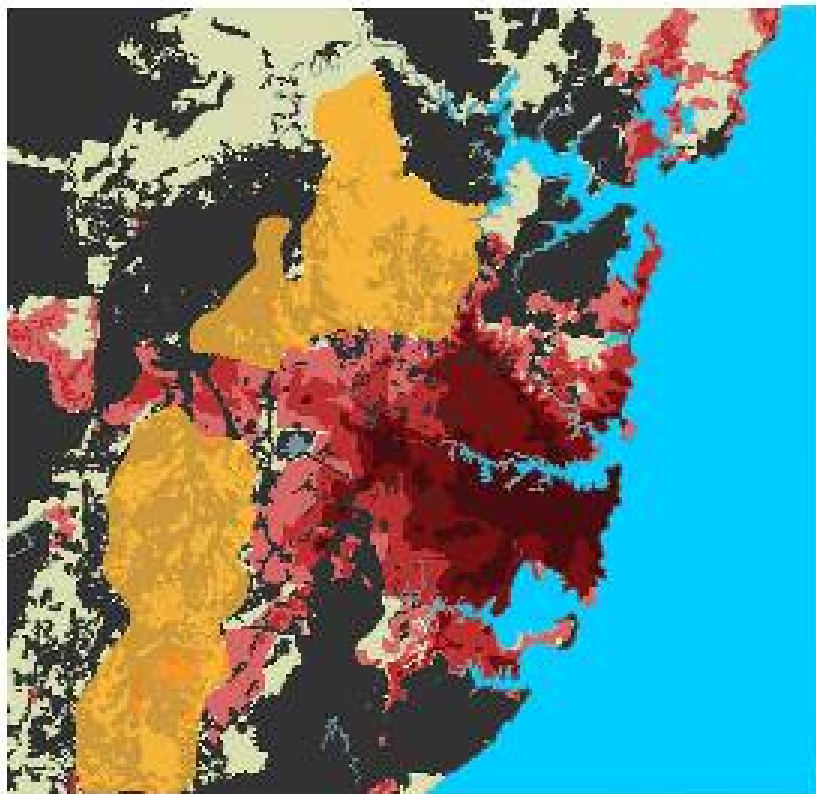
While it is entirely supportable that the State Government would see such a growth of low density sprawl as undesirable, the decision to locate a population of approximately 600,000 persons inside the existing urban footprint, would seem a good deal harder to justify. In this context, the public attitude to redevelopment, particularly where located over the back fence, has been consistently antipathetic, and it has to be questioned whether such an approach to future Sydney growth is likely to be feasible. This is particularly the case if the present

apparently autocratic attitudes were to be replaced by a more conciliatory response from a different political regime.

What might be seen as a far more probable scenario is that, fed by the fuel of its Global Status on the one hand and the pressure of population growth from whatever source on the other, Sydney is likely to keep expanding rapidly until physical constraints force a consideration of alternative solutions that will be acceptable to the public. As indicated in **Figure F5** below, and at conventional suburban densities, based on the work of Daley in 1992, the limit capacity of the Cumberland Plain as set by inherent physical constraints, has been suggested to be 6.2 million persons.

If as anticipated by this author, the long term redevelopment approach is unable to achieve the population targets that were established in the Metro-strategy of 2005, then a possible alternative response to this future situation could be found in a revived policy of strategic population dispersal or to use the older title, decentralisation,

To achieve such a dispersal of population as well as business and commercial enterprise would need the introduction of a revived State Government strategic decentralisation policy. This would mirror and amplify the existing flow of emigration from Sydney to more attractive rural regional situations where housing is less expensive and the environment more conducive to a desirable lifestyle for parents and their children. Such a trend, referred to jocularly as the “Sea change” and “Tree change” movement, is already sufficiently well established as to have generated a literature of its own with a well known example having been provided by Bernard Salt.



F5 CUMBERLAND PLAIN – FULL TO CAPACITY

5 HYPERCOMMUNICATIONS – CATALYST FOR URBAN POPULATION DISPERSAL

Whatever the fundamental drivers of business location, there can be little doubt that over the millennium, cities have grown to reflect the desire of commercial and business interests to be located in close proximity to each other. The clustering of like activities within the shadow of the city walls, is a phenomena that continues in modern times and is manifest in the social intercourse of business executives, meeting for long lunches, ostensibly for profound business purposes.

Humanity is a species driven by the need to communicate face-to-face and to be noticed and this may well be the primary motivation for the central growth tendencies of cities and the complexion of Australian State Capital cities in particular. However, there are technological advances being made that are rapidly impacting on the need for actual face-to-face meeting. For convenience, these developing communication capabilities have been referred to as Hypercommunications.

Most obvious contemporary manifestations of the use of Hypercommunications can be seen in the acceptance by business of video-conference facilities as a direct substitute for personal meetings and travel by land and in the air. The transfer of demand for travel to meet business colleagues and overseas contacts, from conventional land and air transport to digital communications is now very well developed. See **Figure F6** below. Moreover, suppliers of digital based equipment associated with such activity continues to exhibit rapid growth. Refer to **Annexure 1**.



F6 VIDEO CONFERENCES PROVIDE A SUBSTITUTE FOR BUSINESS TRAVEL

However, just as significant to the individual worker is the rapid development of desktop Hypercommunications which allows colleagues to communicate and collaborate for business purposes on a quite intimate basis and completely unconstrained by distance of separation or the physical attributes of a particular location. See **Figure F7** below.

Such facilities are no longer the sole prerogative of business enterprise and, on the home front, Hypercommunications has allowed home offices to function efficiently and geographical distance to be overcome in maintaining family relationships across the globe.

A London to Sydney link, using the freely available software, Skype, as a way to maintain personal contact, constitutes a technology that would have been almost inconceivable less than ten years ago. Now face-to-face synthetic communications is possible using this world spanning technology and, moreover, it is effectively a free extension of services already available on the World Wide Web, the Internet.



F7 ADVANCES IN DESKTOP COMMUNICATIONS – 2001 AND 2007

Even more striking than the inter-personal communications available via fixed or desktop computers is the connectivity available through contemporary mobile telephones. Here the availability of high speed wireless linkages allows individuals to maintain face-to-face contact with business contacts and a network of personal friends, again based on technology that was merely “science fiction” ten years ago.

However, the implications of Hypercommunications for business location is the issue that underpins a current personal interest in the potential for stimulating population dispersal. In part, this interest lies in the perception that many individuals have elected to relocate to rural environments while maintaining business connections with the business world focussed in the State Capitals and Sydney in particular. Moreover, ABS data suggests that in recent times, a significant component of younger people are opting to leave the Cumberland Plain, looking for less expensive housing and a better lifestyle associated with attractive climatic and physical environments than can be obtained by many people in Sydney at present.

Assisting such developing trends to promote dispersal of population to regional, rural areas would appear to be fundamentally beneficial to the complexion of a nation that at present is so unusually urbanised with such a limited number of major cities as compared with Europe or North America.

Based on the development of a State Government strategic policy of population dispersal, or to use an older word, decentralisation, unfortunately tarnished by previous lack of success, the pressure of population expansion in the State and more particularly in Sydney might with advantage be met in the rural areas of the State and on the coastal zone.

6 STRATEGIC URBAN DISPERSAL (DECENTRALISATION) REVISITED

In putting forward a proposal to revisit a policy of thirty years ago, whatever the credentials of its authors of that period, it has to be conceded that earlier efforts to move large numbers of people away from Sydney in particular, achieved very limited success. Moreover, in implementing a decentralisation policy in the early 1970s, it can be seen that very substantial sums of money were expended by the Federal Labour Government of that period, on land acquisition for new town projects that ultimately were abandoned with associated huge losses of government revenue.

In this regard, it is apparent that, particularly among State Government politicians, the notion of decentralisation has until very recently been anathema, no doubt directly related to this unfortunate history. Moreover, in attempting to revive interest in such a policy as an alternative to the current strategic approach to Sydney in particular, it has been apparent that this level of disenchantment has percolated throughout society and into the realms of academe, making a re-valuation of decentralisation a significantly fraught experience.

This paper is not the vehicle to indulge in a post-hoc assessment of the reasons that decentralisation failed so abysmally thirty years ago. However, one ingredient in its demise was the extent to which political “horse trading” was substituted for careful economic assessment and rational strategic land use planning. Another, even more significant issue, was the failure to develop financial mechanisms designed to induce business and commercial activity to relocate away from the conventional and cosy central city location.

Something completely new was needed to galvanise such a change of habit and it is only now, thirty years later, that such a novel circumstance can be seen as having arisen. Now with a rapidly changing business environment, largely mediated by the emergence of high level telecommunications and personal communications, a new element can be put forward as the necessary catalyst that was lacking from earlier decentralisation endeavours. This is Hypercommunications as discussed in an earlier section.

Moreover, it seems possible, that despite a long period of scepticism, the State Government has at last conceded that decentralisation may be useful. During the last six months, the appearance of a Regional Strategy which embraces urban decentralisation has been presented in a document that charts the future growth of the Lower Hunter Valley, lying to the west of Newcastle.

While Newcastle was included in the linear expansion of Sydney, proposed in 1969 in the structure plan known as the Sydney Region Outline Plan, SROP, it is only now, nearly forty years later in 2007, that any indication that such a form of urban growth is being actively supported by the State Government.

The structure plan provided in the accompanying **Figure 8** can be seen as a direct reflection of the earlier SROP proposals which embodied the notion of a linear city, running along a north south axis.



F8 DECENTRALISATION - 2007

As a reason for the Lower Hunter Regional Strategy to have been put forward, it is possible that the difficulties of activating a wholesale policy of urban redevelopment are starting to impinge on the political consciousness as the level of public disenchantment with such an approach becomes apparent and the level of trenchant opposition to redevelopment in existing suburban areas can now be clearly seen. Based on this early experience of residents' adverse reaction to such change through redevelopment, the ultimate level of opposition can now also be anticipated.

In this regard, the reaction of the residents of Ku-ring-gai to Ministerial intervention in the local planning process, should surely have created significant level of disquiet in the halls of State Government planning. While such opposition might be seen as generally tenable and expected in a politically opposed geographical area like Ku-ring-gai, transposed to politically supportive locations further to the west of the Sydney Region, such a response cannot be seen as painting a particularly optimistic picture of the medium and longer term future of the metropolitan area as it struggles to accommodate an increase its population the equivalent of two copies of contemporary Canberra.

7 NEW GROWTH MODEL – HYPER-LINKED URBAN NEW SOUTH WALES

Historically, Sydney has been the dominant urban agglomeration in New South Wales which no other centre in the State has been able to challenge. Indeed, over a protracted period, Sydney has grown apparently at the expense of all other regional and rural urban areas to its present stature which now allows it to claim nascent Global City status.

However, while such a status has allowed Sydney to develop as the dominant economic network node in this part of Oceania, the growth and power of the rapidly changing Internet can allow a significant change to occur and for a fundamentally different form of urban structure to arise in the State of New South Wales. In the jargon of planners, this new network structure could be described as a *polycentric urban nodal system* with the principal node located on the shores of Port Jackson and linked to the State of New South Wales and the World commercial network via the Internet.

The most significant element of such a configuration of network connected urban places, is to be found in the linkages which diminish the impact of geographical distance, particularly where products of the mind are being traded. In this regard, already, it can be demonstrated that many individuals have seized the opportunity to relocate to rural environments while maintaining strong commercial links to the Sydney Commercial Business District, CBD, via the wireless and wired tendons of the Internet.

Evidently, in raising such a possibility for consideration as the basis of a renewed policy of decentralisation, the availability of land for future regional urbanisation is a fundamental requirement. In this regard, it has to be conceded that along the coastline of New South Wales, substantial areas of land for new urban growth, or even expansion of existing urban centres, constitutes a relatively scarce commodity. On the western side of the Great Dividing Range, it is a very different situation and the limitation is more a matter of satisfactory climatic environment and water supply, than sufficiency of space.

However, based on direct observation by the author of the coastal land of New South Wales, a number of locations suggest themselves as having the necessary land area available to accommodate a significant level of new population. These have constituted the fundamental element of node location as set out in **Figure 9** below. However, it is prudent to acknowledge that the population capacity of land considered suitable for significant urban

growth, is very much a function of the residential density that might be possible in such new or expanded urban areas.

When the population capacity of both potential coastal and inland urban expansion areas are seen together, however, there should be little problem in accommodating a significant proportion of the anticipated one million person expansion of Sydney, expected to occur over the next thirty or more years.



F9 NETWORKED URBAN NEW SOUTH WALES

8 ACHIEVING STRATEGIC POPULATION DISPERSAL

8.01 Reviving State Government Decentralisation Policy

As earlier acknowledged, the involvement of both the Federal and State Governments must be a fundamental part of any revived policy of strategic population dispersal. However, as compared with policies of 35 years ago, no longer does this have to be based on a model originally developed to respond to the growth of European cities and London in particular.

What is seen as the inevitable requirement of any new move to disperse population is the means for relocated persons to find employment and be able to make a living. As has been speculated, the Internet and Hypercommunications is seen as the catalyst that will make

such a situation possible. This makes a contrast with the situation that pertained nearly forty years ago when relocation of industrial enterprise as a basis for dispersed or decentralised work failed to materialise. As earlier noted, the consequences of this failure have impacted on attitudes up to the present and only recently has there been any indication that a change may be occurring, based on the recent dispersal strategy for the Lower Hunter Valley.

As earlier discussed, the fundamental changes that have occurred in the working environment of business in the last 20 years, and particularly with the digital revolution that has occurred with consequent impacts on the form of work, have all suggested to the author that this might represent the necessary catalyst to a revival of the earlier State Government policy of decentralisation, assisted by the availability of Hypercommunication

However, to achieve the level of personal intercommunications that is implicit in the notion of Hypercommunications, involvement of the Commonwealth Government as the main shareholder of Telstra makes it a significant operator in providing necessary telecommunications infrastructure. While this may change in the future as wireless distribution of Internet services become ever more widespread, at present, by far the majority of broadband Internet users rely on radio frequency signals sent over the old copper cable service, particularly where it joins households to local telephone exchanges. However, the ADSL service that is now in use, places a significant limitation on available bandwidth as compared with what is available to the most advanced users of the Internet in other parts of the world.

8.01 Population Dispersal to the Regional Towns

In advancing the notion of a revived policy of population dispersal to regional locations, a consideration of desirable urban growth principles suggest that such a process should not occur on an undirected and unplanned basis as tends to happen at present. On the contrary, coherent and localised regional urban growth seems eminently desirable and to achieve this, the definition of a network of existing towns suitable for expansion is considered to be an essential element of the process of dispersal.

As earlier discussed, if the notion that linking of urban places by the Internet is a component of potential decentralisation success, then the position of the principal telecommunications “backbone” in this State and in adjoining States is a highly relevant consideration. This in part was a basic consideration in proposing the arrangement presented above in **Figure F9**.

Having regard to the growth of Silicon Valley near San Francisco in the USA, the location of significant tertiary institutions is also a relevant consideration and again this was an issue that impinged on the construction of the same figure referred to earlier.

Another element relevant to the selection of urban growth centres relates to direct physical access and given the propensity of business to rely on true face-to-face meetings as the basis of critical decisions, access to a reliable and frequent air service is also seen as mandatory. Again this represented a significant issue in suggesting the regional nodes proposed in **Figure F9**.

To make the impact of decentralisation effort a worthy reflection of the administrative and planning effort required, it is suggested that for each major node selected, a strategic goal of at least 100,000 additional persons should be set for each defined recipient growth centre. In aggregate, this should make possible the accommodation of in excess of 800,000 persons away from metropolitan Sydney. Evidently such an ambition if achieved, would have the effect of solving the fundamental spatial limitation of the Cumberland Plain to accommodate increased population levels.

8.03 Creating Dispersed Business Facilities – Taxation incentives

As earlier acknowledged, creating a successful business and commercial environment in regional urban locations constitutes a key element in attracting population to relocate. While cheaper housing may be a significant attraction to induce a population outflow from Sydney, for the younger age group, access to jobs remains a critical issue as made apparent by the experience of thirty or more years ago.

The creation of business hubs in selected regional centres may represent one of the components of a successful regional urban growth centre policy. Already certain elements of the State Government administrative system have demonstrated how a dispersed communications network can operate in this type of situation. From personal experience, the network that now links together all the Court Houses of regional New South Wales, provides the appropriate level of business interconnection that is relevant to dispersed business and might serve as the core of State Government sponsored business hub development, created in concert with local business interests.

The counterpoint to such decentralised urban business hubs, is the need to ensure maximum network access to the surrounding town areas. With a service footprint having a radius of approximately 50 kilometres, the introduction of wireless linked Internet has the capacity to provide a reasonably high grade, broad band service to dispersed regional towns and growth centres.

Apart from reliance on local business involvement, a probable element of success in establishing regional urban business growth centres may well involve creative forms of taxation incentive. Again, the development of a coherent regional strategic decentralisation policy should underlie such an approach.

Business hub of the type described, has been developed in the USA as an attractive means of providing local business with the various services that make a remote enterprise as successful as is possible in a major city centre. In some respects, having regard to its likely social, personal networking function, this type of facility could be seen as resembling a popular new facility known as the “Shed”. The creation of Business Sheds could well provide the focus of regional urban business activity and might constitute the initial mechanism required to provided the necessary attraction for dispersed business.

8.04 Government Services and Dispersal

Although met with considerable resistance in the past, the deliberate relocation of Government Departments and Service Agencies to rural urban locations, would constitute a relevant element of a new population dispersal process. In historic terms, there already exists an extreme example of such a policy based relocation of government services: the National Capital in the Australian Capital Territory. Moreover, Canberra has a capacity to absorb a very substantial increase in population, particularly when expansion into adjoining areas of New South Wales is considered. Provision to allow such an expansion has already been considered in relation to rezoning applications made to Queanbeyan City Council. Following an enquiry instituted by the NSW State Government, in principal, the rezonings were supported, although the extent of allotments proposed was significantly curtailed.

Apart from the Canberra example, which is necessarily a rather unusual example given the involvement of the Federal Government, there are other decentralisation projects that can be cited. In this context, the Central Mapping Authority represents a relevant example and is now located in Bathurst, a move that was achieved without significant loss of Sydney staff, it is understood.

8.05 Strategic and Statutory Land Use Planning

Hopefully it is unnecessary in 2007 to have to suggest in any detail the type of planning activities that may be required in regional growth centres as a response to a possible State Government strategic plan for population dispersal. However, given the significant number of rural shires and councils which have minimal numbers of trained planning staff able to carry out the steps required to develop a suitable form of town expansion, some basic issues should be discussed, however briefly.

Initially, a careful land based environmental study of the regional town locality is a prerequisite for successful town expansion and land capability mapping and identification of significant elements of an area is essential. Such a process, in which the structure of the land in environmental terms is defined in relation to physical access and its physical complexion, constitutes the most fundamental part of a planning process, whether related to an existing or new urban area.

With the emergence of “sustainability” as a key concern in developing planning proposals, both the natural and the man made environment demand careful assessment and in 2007, this can be made a good deal easier by virtue of the contemporary tools of remote sensing and mapping. In particular, the service provide by Google Earth constitutes a very useful initial source of information, particularly when seen in the context of the NSW Lands Department on-line land database. In the latter, a variety of themes are available to apply as filters to the maps available for most location across New South Wales, including cadastral and land form information. The only caveat in using this type of planning information is that a fast broadband Internet service is required if delays in displaying the maps and refreshing them is not to become interminable.

Once the basic elements of an area are defined, and some form of citizen feedback is undertaken to establish preferred outcomes, production of structure plans will help to establish the basic components of a local area which can then feed into a statutory plan drafting exercise.

The latter process, while inevitably rather tedious, is now quite conventional, particularly since the State Government has introduced a Local Environment Plan template. While there can be major arguments about the appropriateness of a single format instrument as being suitable to relate to all areas in the State, the potential for intrinsic consistency has to be acknowledged. This is particularly relevant to land use zoning definitions, while ever zoning of land use remains the fundamental tool of planning control in New South Wales.

In this general context, it can be suggested that the basic steps to the production of a plan for the use of land have not changed overmuch since planning processes were adopted in New South Wales in 1948. While the range of concerns may have expanded and become ever more complex, setting up a suitable framework of controls requires the same intellectual approach that has applied ever since the end of the Second World War and was made manifest in the County of Cumberland Plan of 1952.

Such an approach to planning can be expected to remain relevant until such time that a decision is made to abandon zoning as a planning tool in favour of direct negotiation on a locality and site specific basis. This is understood to be the current model applying in the UK, although it appears to be based on a strongly defined structural framework developed at the Borough level of government and then transferred to local councils to be administered and implemented. In New South Wales, such a planning structure is not explicitly called for in the Environmental Planning and Assessment Act, although it has been employed in various places as a means of defining fundamental land and access relationships.

The last step in any successful planning work is a process of review and this needs to be related to a specific time period of perhaps five years. As this paper has endeavoured to show, remarkable changes to business and personal communications have occurred in just ten years, with dramatic implications for urban and regional planning. As the process of technological change in particular accelerates ever more rapidly, developing planning instruments that remain relevant and able to reflect the changes in society and its expectations, constitutes a massive task for particularly Local Government to undertake. However, if the next thirty years are not to involve an inevitable slide into ever more chaotic and ad hoc land use controls, starting the planning process properly as described above represents an urgent responsibility that must not be avoided for any reason however persuasive.

9 CONCLUSIONS – SYDNEY AND THE BUSH

As an apparently independent urban entity, for the rest of the State of New South Wales, Sydney may appear almost detached and self-contained. However in reality, Sydney constitutes the primary economic engine of the State and operates in this role for the rest of Australia as well. This means that in contemplating any process of population dispersal from the Cumberland Plain, the economic primacy of Sydney must be taken into account and this implies a high level of personal access and related activity, if distant urban places are to be economically viable as well as being independently successful.

Until very recently, this reality has been met by recourse to air travel in particular and frequent movement of business executives from distant urban locations to attend meetings has been the norm. During the last ten years, digital technology has rapidly developed to make such a process less necessary and this is speculated to provide a mechanism that will allow business to operate ever more successfully at remote locations relative to Sydney. The implications of this are that, where business can flourish, people can locate with the expectation of finding work. The counterpoint to be seen with distant business locations is the availability of less expensive housing than found in Sydney and more and more, a better living environment.

Quite apart from the growth potential of the Sydney Metro-region to generate an outflow of migrants due to constraints to growth, the direct physical and social impacts of Climate Change are also likely to require attention in all sea edge communities. Taken together, these issues are likely to demand a high level of planning skill to produce adequate responses. In addition, Local Government is likely to be in the “front line” in meeting the major changes that can be expected if the various forces referred to in this paper eventuate.

Beyond that, population dispersal is suggested to be an issue that will have to be grasped by planners in Local Government and the tools of land use planning may need revision in order to deal effectively with such a new challenge. Moreover, as compared with forty years ago, planners cannot afford to be involved in creating a further failure of strategic policy.

Looking to the longer term, it is proposed that a fundamental planning ambition at the State level should be to consider Sydney as inexorably linked to the Bush and that commercial and business success in the State as a whole will only become a reality when that symbiosis is explicitly planned for and achieved. In that regard, it is strongly urged that in any State planning or the development of major State strategy, the underlying objective is to achieve a “Sydney and the Bush” relationship, which may be assisted by applying a revived policy of population dispersal to rural growth centres on a selective basis related to regional function.

REFERENCES

London Climate Change Partnership: Finance Sub-Group. 2006. *Adapting to climate change: Business as Usual?* Greater London Authority, London, 2006

Planning Policy Statement 26, *Tackling Climate Change Through Planning: The Government's Objectives* Town and Country Planning Association Discussion Document London, September 2006

Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, Geneva, 2007

Local Government Association of Queensland, *Adapting to Climate Change*, Newstead 2007

Weinstein, I. *Emerging Technologies for Teleconferencing and Telepresence* Wainhouse Research 2005 <http://www.wrplatinum.com/Downloads/4382.aspx>

Brockman, P. *The Perfect Storm: Why Video Conferencing Will Dominate Business Communications* June 2007 http://www.brockmann.com/family/peter/Brockmann_VC1_071507.pdf

Brockman, P. *The Desktop Video Conferencing Experience* August 2007 http://www.brockmann.com/family/peter/Brockmann_DesktopVideo_082107.pdf

Davies, A.W. *Videoconferencing Industry Statistics* Wainhouse Research Bulletin Vol. 7 #31, August 31, 2006 <http://www.wainhouse.com/bulletin>.

Beattie, M. F. and Greenberg, A. D. *Using Conferencing and Collaboration to Reach Carbon Neutrality* August 2007 <http://www.wainhouse.com/files/papers/wr-useconf4carbon.pdf>

Department of Planning, *Lower Hunter Regional Strategy*, Sydney, 2007 <http://www.planning.nsw.gov.au/regional/hunter.asp>

Department of Environment and Planning, *Manual for preparing Local Environmental Plans and Studies*, Sydney, 1985

Department of Environment and Planning, *Cartographic Guidelines – Environmental Planning and Assessment Act, 1979*, Sydney, 1984

Department of Environment and Climate Change, *Guidelines for Biodiversity Certification of Environmental Planning Instruments (Draft)* Sydney 2007

Standard Instrument (Local Environment Plans) Order 2006

Practice Note PN 06–002 *Preparing LEPs using the standard instrument: standard zones* Department of Planning, 2007

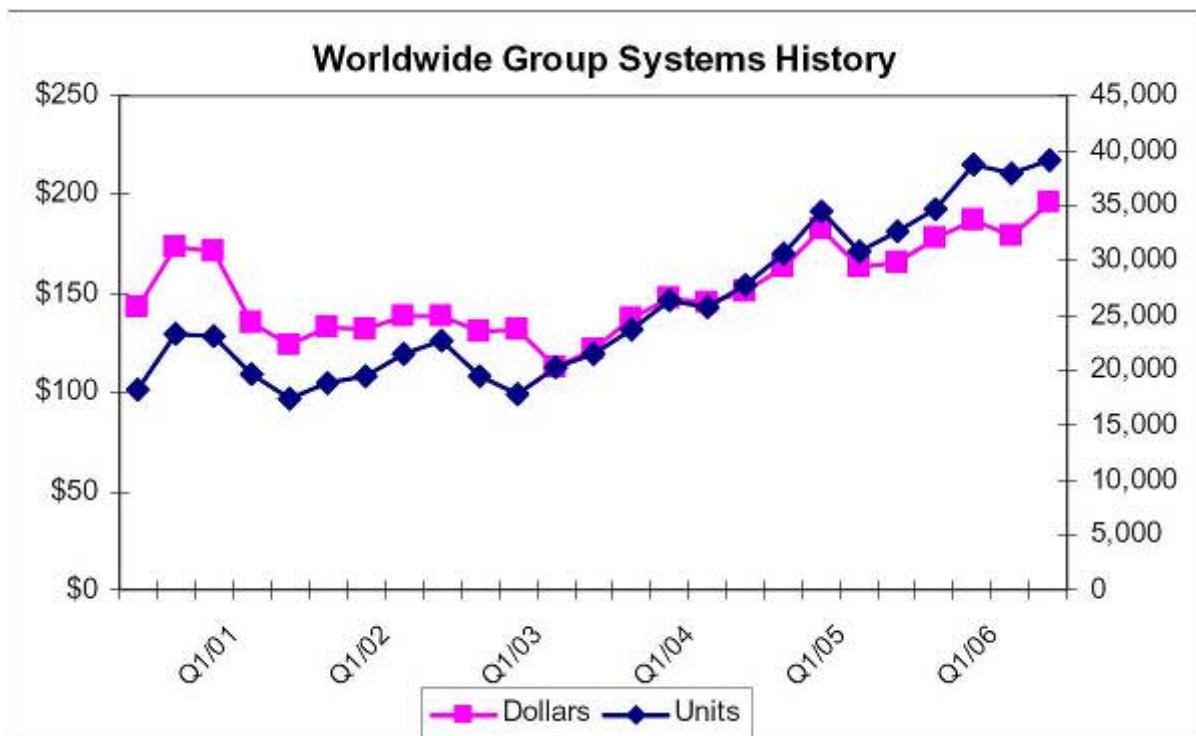
Practice Note PN 06–003 *Preparing LEPs using the standard instrument: definitions* Department of Planning, 2007

Department of Planning, *Local Plan Making*, Sydney 2007 <http://www.planning.nsw.gov.au/planningsystem/local.asp>

Department of Planning, *City of Cities - a Plan for Sydney's Future*, Sydney, 2005 <http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/introduction/index.html>

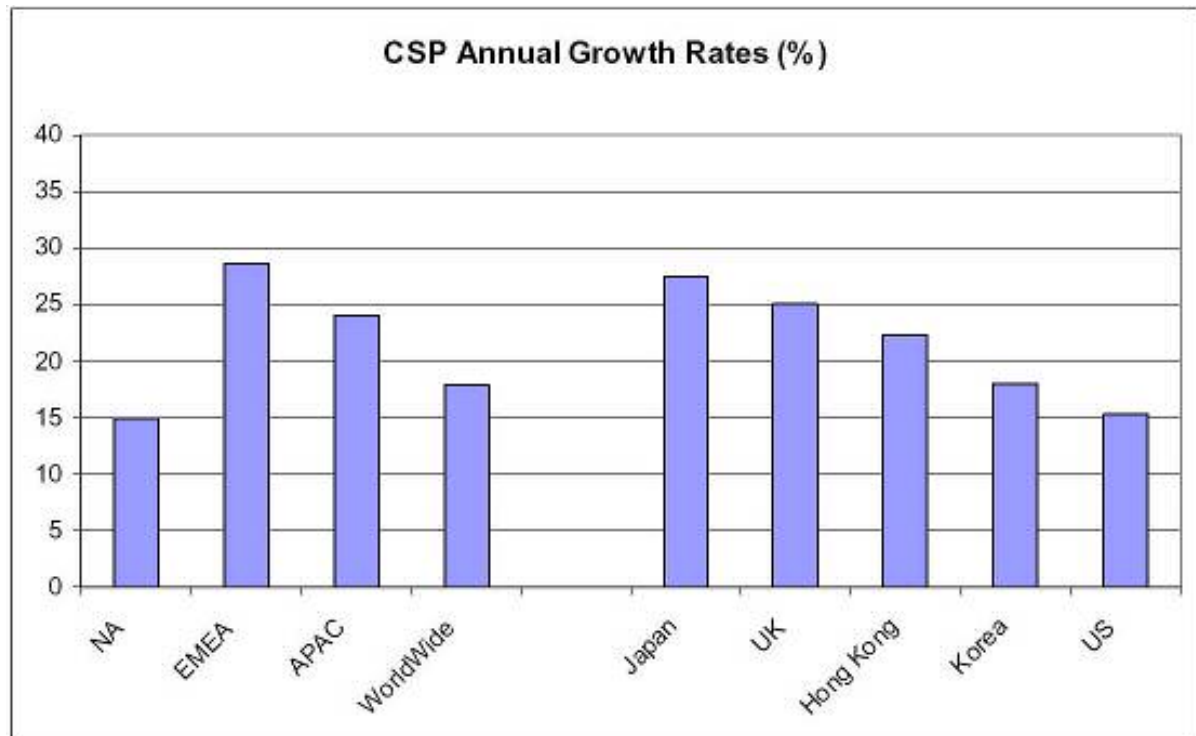
ANNEXURE 1

SYNTHETIC FACE-TO-FACE MEETINGS - DIGITAL GROWTH



Source: Wainhouse Research

A1 ANNUAL GROWTH RATE OF VIDEO CONFERENCE BUSINESS



Source: Wainhouse Research

A2 GROWTH RATE OF VIDEO CONFERENCING AT 2007

ANNEXURE 2

THE STERN REPORT (UK) IN PRECIS

The Stern report: key points

by Hilary Osborne
Guardian Newspaper

October 30, 2006

The dangers

- All countries will be affected by climate change, but the poorest countries will suffer earliest and most.
- Average temperatures could rise by 5C from pre-industrial levels if climate change goes unchecked.
- Warming of 3 or 4C will result in many millions more people being flooded. By the middle of the century 200 million may be permanently displaced due to rising sea levels, heavier floods and drought.
- Warming of 4C or more is likely to seriously affect global food production.
- Warming of 2C could leave 15-40% species facing extinction.
- Before the industrial revolution level of greenhouse gases in the atmosphere was 280 parts per million (ppm) CO² equivalent (CO² e); the current level is 430ppm CO² e. The level should be limited to 450-550ppm CO².
- Anything higher would substantially increase risks of very harmful impacts. Anything lower would impose very high adjustment costs in the near term and might not even be feasible.
- Deforestation is responsible for more emissions than the transport sector.
- Climate change is the greatest and widest-ranging market failure ever seen.

Recommended actions

- Three elements of policy are required for an effective response: carbon pricing, technology policy and energy efficiency.
- Carbon pricing, through taxation, emissions trading or regulation, will show people the full social costs of their actions. The aim should be a global carbon price across countries and sectors.
- Emissions trading schemes, like that operating across the EU, should be expanded and linked.
- Technology policy should drive the large-scale development and use of a range of low-carbon and high-efficiency products.
- Globally, support for energy research and development should at least double; support for the deployment of low-carbon technologies should be increased up to five times.
- International product standards could be introduced.
- Large-scale international pilot programmes to explore the best ways to curb deforestation should be started very quickly.
- Climate change should be fully integrated into development policy, and rich countries should honour pledges to increase support through overseas development assistance.
- International funding should support improved regional information on climate change impacts.
- International funding should go into researching new crop varieties that will be more resilient to drought and flood.

Economic impacts

- The benefits of strong, early action considerably outweigh the costs.
- Unabated climate change could cost the world at least 5% of GDP each year; if more dramatic predictions come to pass, the cost could be more than 20% of GDP.
- The cost of reducing emissions could be limited to around 1% of global GDP; people could be charged more for carbon-intensive goods.
- Each tonne of CO² we emit causes damages worth at least \$85, but emissions can be cut at a cost of less than \$25 a tonne.
- Shifting the world onto a low-carbon path could eventually benefit the economy by \$2.5 trillion a year.
- By 2050, markets for low-carbon technologies could be worth at least \$500bn.
- What we do now can have only a limited effect on the climate over the next 40 or 50 years, but what we do in the next 10-20 years can have a profound effect on the climate in the second half of this century.