

Living Standards Framework: links between corners and capitals

Treasury's living standards framework is evaluated on the basis of the five domains, which represent the key areas of development relevant for the New Zealand economy today: economic growth, social infrastructure, sustainability for the future, increasing equity and managing risk. Those key areas can, in turn, be assessed against the ability of New Zealanders to access the desired levels of human, social, natural, physical and financial capital, spanning the breadth of the framework.

Physical and financial capitals are referred to financial wealth (equities, bank deposits, assets and liabilities), housing and infrastructure (machinery, buildings roads etc.). *Human capital* is mainly related to skills (acquired through labour market experience or education) and health of individuals. Institutions and trust, both among people and in the existing government/political system, are elements of *Social Capital*. Finally, natural resources and environmental state can be regarded as components of *Natural Capital*.

The sustainable development model seeks to integrate those four capitals by understanding the interrelationships and dependencies between them. In the centre of Figure 1, we have a capital framework, which represents the interactions between economy, society and environment: physical and financial, human and social, and natural capitals, respectively. There is a strong relationship between meeting human needs now and into the future, and living within the limits of the environment (Statistics New Zealand, 2008). People are reliant on the capacity of the natural environment to support their needs. In turn, natural capital, as a finite resource, relies on the ability of people to manage it for sustainable, long-term use. Similarly, the productivity of machines and other physical capital depends upon the human capital available to use it, and the efficiency and effectiveness of the societal environment in which the capital exists. Without appropriately skilled staff and an institutional infrastructure that supports industry the value of the available physical capital will be reduced (The Treasury, 2013).

The policy challenge is to maintain viable levels of all the capitals in a world looking for higher living standards. Capitals can be thought of as resources, assets, systems in place, which are evaluated from the perspective of each of the 5 key areas. The diagram below demonstrates how the four capitals are intertwined with each other and with the five key areas:

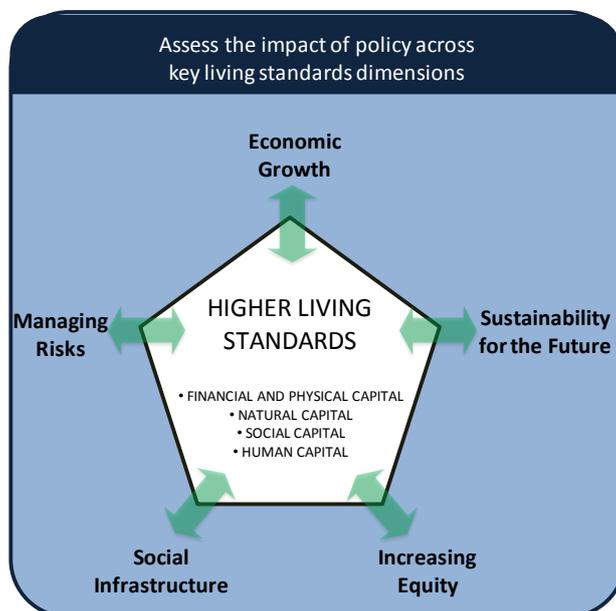
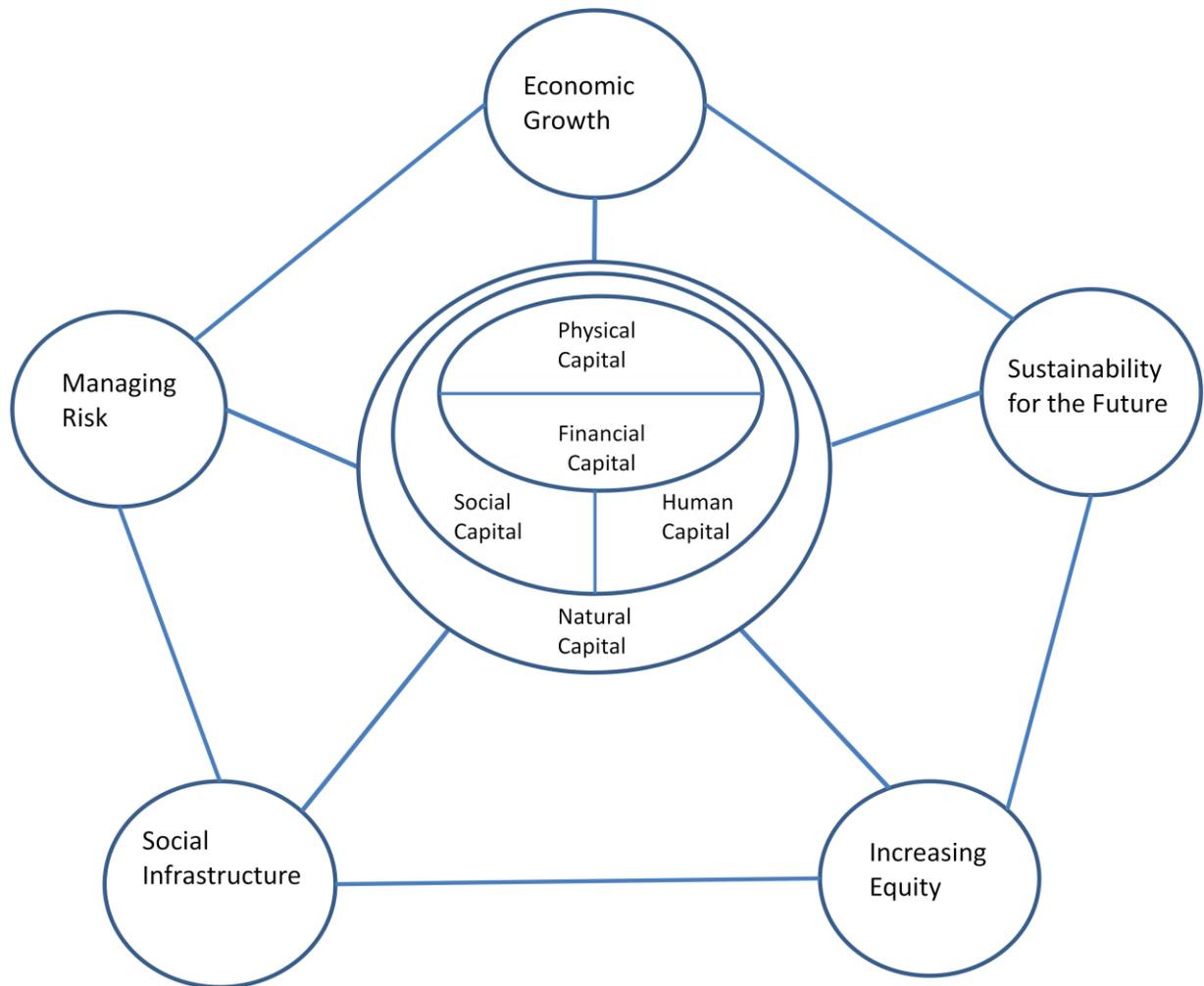


Figure 1. Living Standards Framework: linking capitals and key areas



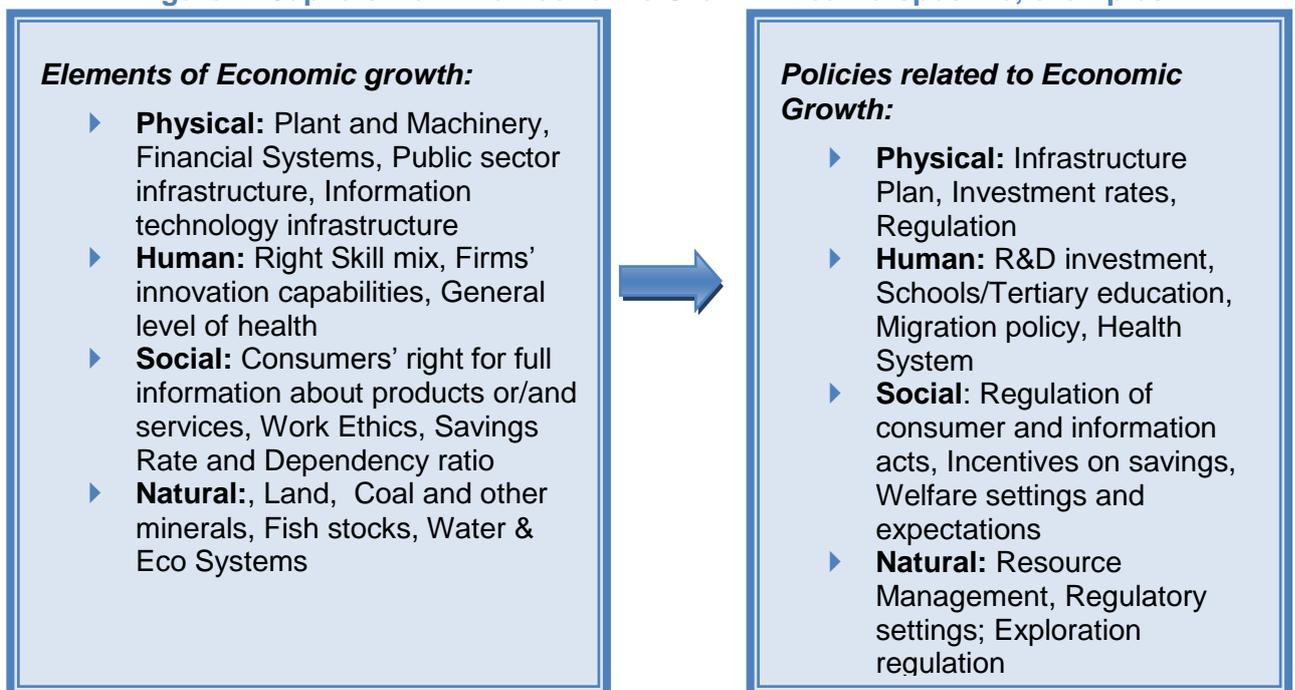
Capitals from the perspective of Economic Growth area

Economic growth (EG) dimension is evaluated in terms of the access to resources to support desired lifestyles and how policy changes can improve the existing levels of the four capitals through regulatory and monetary policies which would ultimately lead to an overall increase in economic growth.

- ▶ Some of the examples of *physical capital* of EG area include acquisition of fixed and intangible assets, in particular, information technology infrastructure (new systems and technologies to assist organisations in running efficiently), which greatly contribute to modern economic growth. Other elements of physical capital include appropriate infrastructure in place: private and public sector infrastructure i.e. roads, buildings, bridges, transport facilities, public schools and hospitals. Some of the public infrastructure elements (access to public schools, emergency and public hospital facilities) could also be classified as essential for human capital growth. Another important aspect of physical capital is financial systems which are crucial in the efficient allocation of resources between economic agents.

- ▶ *Human capital* can be represented by the presence of the right mix of skills needed for efficient functioning of the labour market, as well as firms' capabilities to generate innovation through appropriate training and opportunities for creativity. Another element of human capital is the sufficient level of health of people allowing them to be active members of the society and work productively.
- ▶ *Social capital* depends on the ability of consumers to make informed decisions and enjoy the utility from their consumption. *Social capital* is also about New Zealand's national identity, values and norms, and work ethics, which may contribute to higher utility of people employed and encourage innovation in the work environment. High dependency ratios and lower propensity to save can, in turn, stipulate growth (e.g. increase the burden on taxpayers), thus those need to be carefully regulated.
- ▶ *Natural capital* is represented by economic efficiency of industries that rely on natural resources (e.g. land fish stocks, timber, coal and other minerals extraction, and potentially eco-system services).

Figure 2. Capitals from the Economic Growth Area Perspective, examples

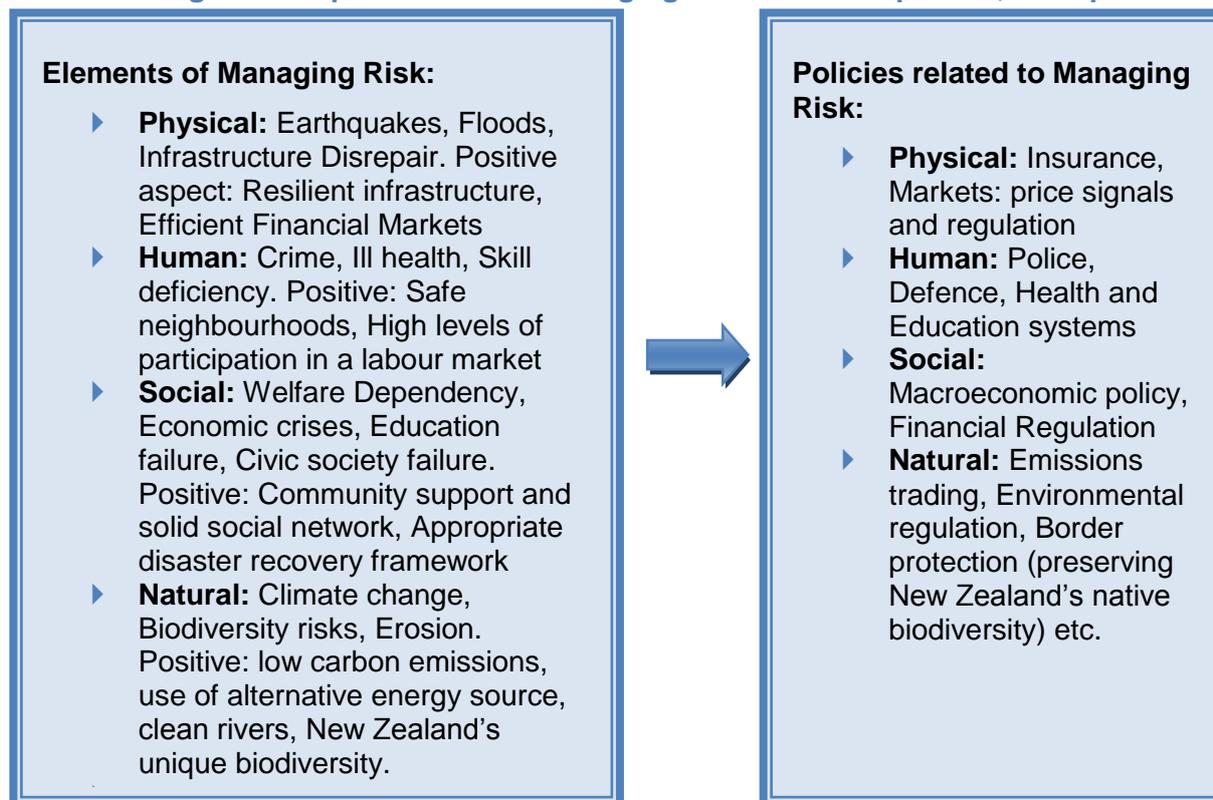


Capitals from the perspective of Managing Risk area

Managing Risk (MR) area is related to the four capitals through **managing or mitigating risks** that prevent individuals from accessing the four capitals. Good risk management enables policy makers to be better informed about the risks associated with action or inaction to receive critical input to prioritisation and resource allocation processes, and to target desired levels of resilience. In terms of improving our human, social, natural, physical and financial capital, good risk management is the difference between evidence and knowledge and intuition and luck.

- ▶ *Physical Capital risks* from the MR perspective include natural disasters of destructive character (e.g. earthquakes, floods, tsunamis), financial infrastructure disrepair and market failure. Thus related risk mitigations must include disaster insurance, as well as appropriate regulation of financial markets and investment portfolio diversification.
- ▶ *Human capital risks* include unsafe living environment, poor health and skill deficiency of the workforce. There is a close link between different aspects of human capital. Unsafe living environment is characterized by high levels of crime and offence in a neighbourhood (i.e. measures neighbourhood safety). Other aspects of unsafe living could be related to unsanitary living conditions, disaster-prone infrastructure, poorly insulated homes etc. The latter may also have an impact on poor health. The risks to poor health can be classified into behavioural risk factors (e.g. Tobacco and alcohol consumption), environmental risks, access to health services, and psychosocial factors. To prevent or mitigate such risks the government should have efficient police, defence, health and education systems and undertake policies that target societal inequality, increase resilience to environmental shocks, and encourage sustainable growth (i.e. environment friendly practices).
- ▶ *Social Capital risks* include increased number of people on welfare benefits, education system failure, as well as economy being more prone to economic crises. Such risks can be national, regional or community-based. Therefore, the resources available within regions or neighbourhoods, including community groups and services are critical in providing the necessary support during the time of crisis or unexpected natural disasters that have an economic impact (i.e. Canterbury earthquake). Regional or community infrastructure that has a resilience/recovery framework can provide its residents with the necessary support in case of a crisis or post-crisis
- ▶ From the MR perspective, *natural capital risks* include current risks that require immediate attention such as climate change, biodiversity risks or erosion. Measures to prevent or lessen the impact of such risks might include tighter regulation of emissions trading scheme, border protection and environmental regulations.

Figure 3. Capitals from the Managing Risk Area Perspective, examples



Capitals from the perspective of Sustainability for the Future area

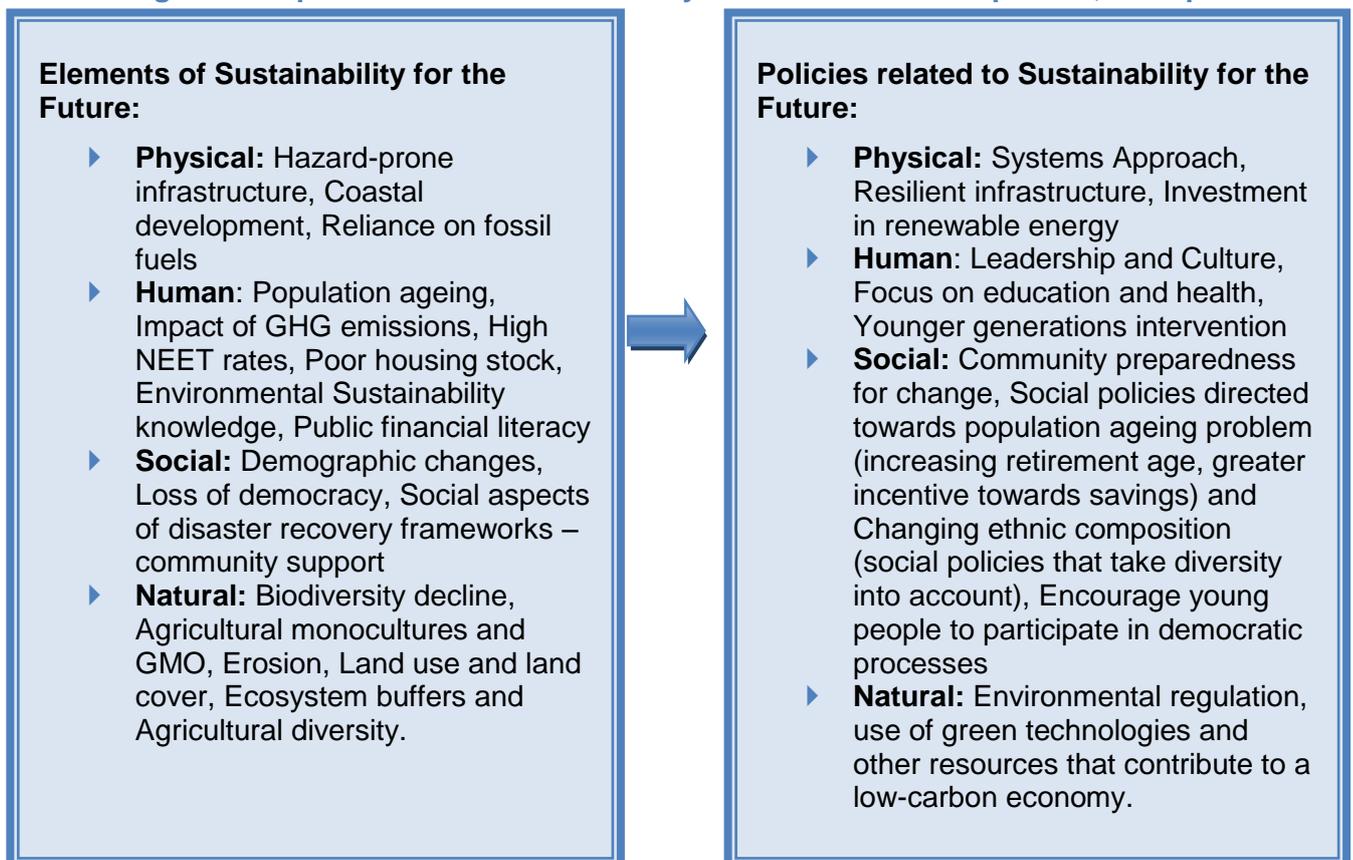
Sustainable development calls for an increase in living standards for everyone without compromising the ability of future generations to meet their own needs. Although sustainability for the future is about future development, it is also about contemporary measures and policies that need to take place in order to achieve the sustainable future state. The main objective of sustainability for the future initiatives is to prevent or mitigate future and current risks (e.g. biodiversity decline, erosion, population ageing) that are likely to impair future sustainable development via infrastructure provision, regulation, and ensuring efficiency of social and environmental policies.

- ▶ From the SF perspective, *Physical Capital* risks can be represented by a hazard-prone infrastructure, the use of fossil fuels etc. Such physical capital risks can be mitigated by adopting more resilient infrastructure and greater investment in renewable energy sources.
- ▶ *Human capital risks* from the SF perspective include risks that are likely to impair future sustainable development such as population ageing, GHG (green house gas) emissions, poor housing stock and education attainment, limited opportunities for graduate employment and high proportion of people not in the labour market (i.e. not in education, employment or training). Mitigations in this case overlap with the MR area policies, which mainly target health and education systems. Government, communities and NGOs should all be involved in creating incentives to improve the environmental sustainability knowledge and encourage environment friendly

behaviour (e.g. household recycling, reducing energy use). Public financial literacy (household budgeting, kiwi-saver and other low risk investments) can be another way to mitigate future financial risks (i.e. increase in financial burden on future generations).

- ▶ *Social Capital* here can be proxied by participation of society in a democratic process, and a sustainable community development. Policies that help improve the level of social capital in the SF corner can be community-driven which also highly correlate with social infrastructure (trust in government institutions and within a society) and managing risk policies (disaster recovery frameworks on the national, regional and community levels).
- ▶ Green technologies (e.g. hydropower) and other resources that contribute to a low-carbon and low-fossil-fuel economy are essential in maintaining the *Natural Capital* in SF. There is a lot of overlap between natural capital in SF and other dimensions. For instance, natural capital in EG is about using natural resources for growth, and natural capital in SF is about making sure those resources have not been depleted i.e. economic growth is sustainable. Some of the depletion of natural capital is already irreversible (i.e. rise of sea level, ocean acidification, species extinction) and thus measures have to be undertaken to stop its further depletion. Regulatory policies of the SF area should be directed towards improving agricultural diversity and creating ecosystem buffers among other things.

Figure 4. Capitals from the Sustainability for Future Area Perspective, examples

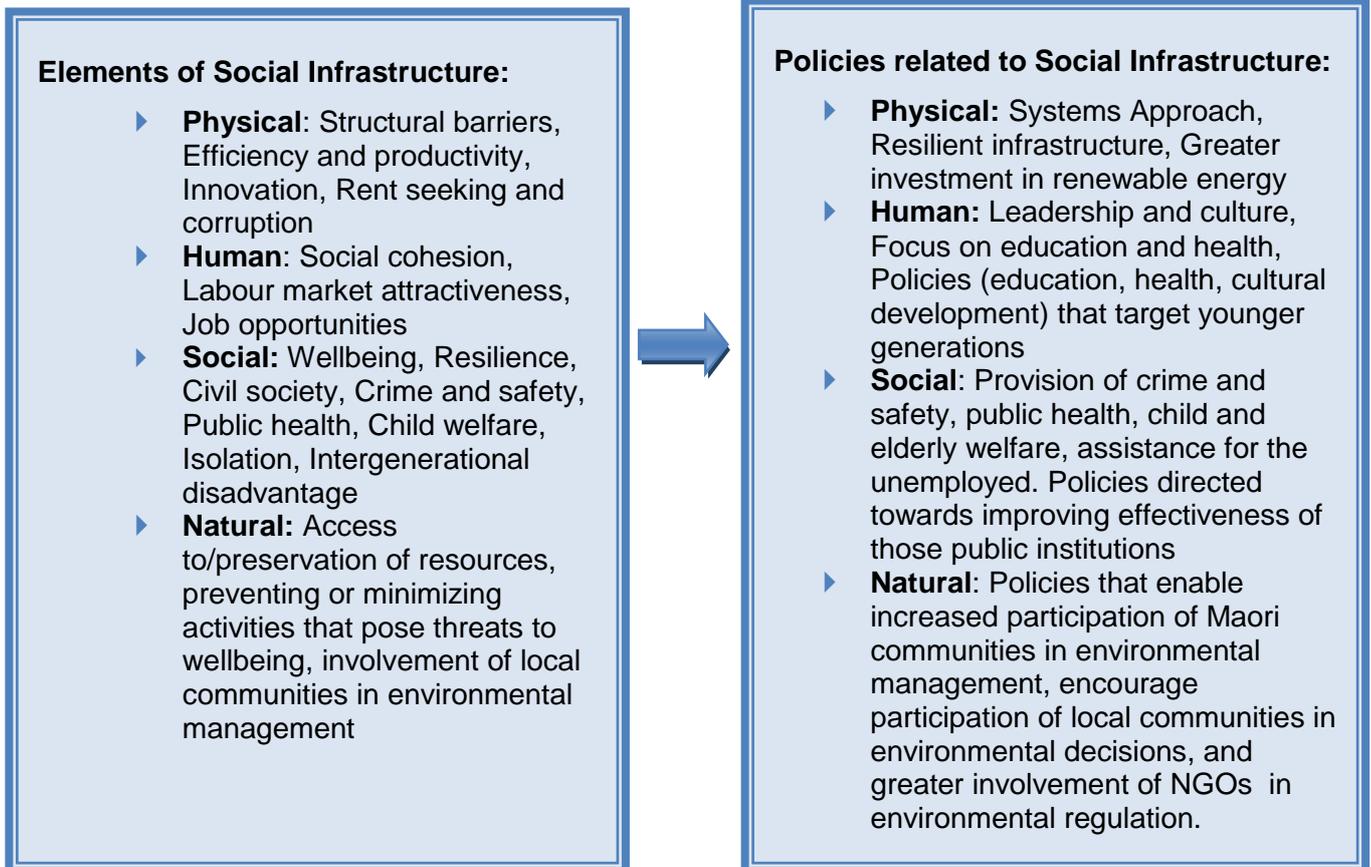


Capitals from the perspective of Social Infrastructure area

Social Infrastructure corner attempts to capture how integrated we are as a society. The key components of Social Infrastructure such as 'soft' aspects of living are related to inter-relationships and participation (community involvement, volunteering, acceptance of new member in the society), and 'institutional' aspects are focused primarily on the effectiveness of government institutions in creating an environment that supports society, which can, in turn, encourage active citizenship, civic participation and voting.

- ▶ *Physical capital* of the SI is related to social risks associated with rent seeking and corruption, as well as structural barriers that hinder productivity and efficiency. Such issues can be resolved or minimized by creating the right incentive system in an organization, fair system of rewarding, encourage accountability, basically a systematic approach that insures the same rules apply to everyone. Efficiency and productivity gains with positive spillovers for the society (e.g. clean air) can also be obtained by increasing investment in renewable energy sources. Important for economic growth and one of the components of social infrastructure – good institutional environment can be achieved via removal of barriers for small firms to enter the market and encouragement of knowledge and best practice exchange.
- ▶ *Human capital* in the SI domain is related to the desired levels of social cohesion, adequate health, labour market attractiveness and job opportunities. Greater social cohesion can be achieved through better education and information, organizations working with the government to implement policies that increase social and cultural tolerance (ethnic diversity program). University and government involvement via graduate and other programs that particularly target youth could increase labour market participation among young people. Creation of new job opportunities overlaps with faster economic growth and greater incentives for creativity.
- ▶ *Social Capital* of the SI is related to such institutional aspects as provision of crime and safety, public health, child welfare etc. It is also about functioning of the democratic society, where all organizations in the society are citizen-owned, citizen-controlled, and citizen-driven, and all individuals and organizations are held accountable for wrongdoing. Therefore, both public and private institutions (i.e. government organizations, NGOs, and other industry groups) should improve their effectiveness through appropriate funding and resource distribution, training, and implementation of flexible systems.
- ▶ *Natural Capital* of the SI overlaps with the SF and IE areas and identifies natural capital risks that pose threats to wellbeing as resources become inaccessible or limited. In addition, environmental degradation may affect the clean and green perception of New Zealand, part of New Zealand's culture that is important to preserve.

Figure 5. Capitals from the Social Infrastructure Area Perspective, examples



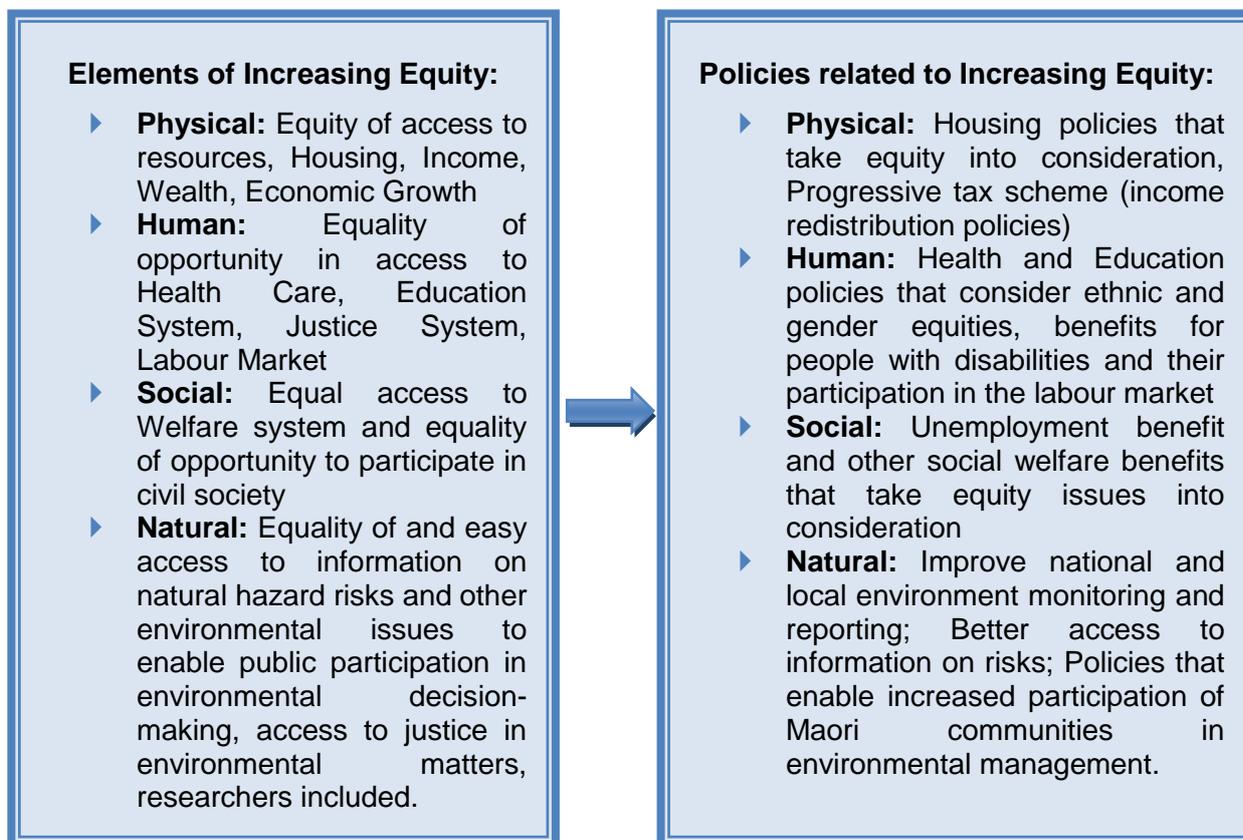
Capitals from the perspective of Increasing Equity area

Increasing equity is not simply about establishing the 'right' level of income inequality and more about providing opportunities and building capabilities for participation in the society.

- ▶ *Physical capital* from the IE perspective is represented by equity of access to resources (e.g. income, wealth, and housing).
- ▶ *Human Capital* can be expressed in terms of equality of opportunity in access to health care, labour market, education and justice systems and targeted policies for populations at high risk with less opportunity.
- ▶ Equal access to the welfare system and equal opportunity to participate in civil society are the key elements of *Social Capital* from the IE perspective.
- ▶ *Natural Capital* from the IE perspective is about equal access to information about natural hazard risks (such as erosion, geotechnical hazards) available to the public, which enables them to participate in decision-making process regarding environmental issues. Better access to information on risks provided by Local Councils as well as Non-Government Organisations can improve consistency of processes associated with consenting practices and notifications by large projects that can potentially harm the environment. Other elements of Natural Capital may

also include balanced regional involvement in national environmental hazard policies or initiatives.

Figure 6. Capitals from the Increasing Equity Area Perspective, examples



From the discussion above, we have a capital framework embedded in the Treasury's Living Standards Framework, representative of the five key areas of development in New Zealand. Each key area captures a certain aspect of each capital kind, but inevitably there is a lot of overlap between the capitals and key areas. For instance, better access to education for different ethnic groups and people with disabilities (human capital) in the IE area could result in better labour market outcomes (i.e. increased participation in the labour market, labour productivity) in the EG area, and social outcomes (i.e. reduction of welfare burden, greater society integration and inclusion, less crime, which are also part of the social capital) in the SI area, and therefore more efficient functioning of the economy as whole.