



*Tax Working Group*  
*Te Awheawhe Tāke*

**Tax Working Group Information Release**

**Release Document**

**September 2018**

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*This paper has been prepared by a member of the Tax Working Group for consideration by the whole Tax Working Group.*

*The advice represents the preliminary views of the member who prepared the paper and does not necessarily represent the views of the whole Group or the Government.*

# Companion note - Environmental/ecological outcomes and taxation

*Marjan van den Belt for meeting #8 on 4 May 2018*

**Purpose:** This paper seeks to supplement the officials paper on Tax and the Environment.

While the discussion of potential frameworks from a neoclassical perspective is useful there are other considerations for us to fully execute our direction in the Terms of Reference: ‘What role the taxation system can play in delivering positive environmental and ecological outcomes, especially over the longer term.’

These considerations are reflected in our draft vision where major systemic trends and changes are highlighted; environmental degradation, technological progress, the ‘future of work’ as well as rising social inequality.

As well as ensuring Maori self-determination (rangatiratanga) and expanding environmental stewardship (kaitiakitanga) to overcome environmental challenges (and uphold kawa) provide opportunities for new ways of living and new industries. *‘Toitu te whenua, toitu te tangata – prosperous land, prosperous people’*

Alongside the frameworks paper it can be useful to have some idea of how the tax system could be used in the short, medium and long term to deliver positive environmental and ecological outcomes.

How could taxation help fund a transition by giving concessions for desirable behaviour by businesses and landowners to improve natural capital?

I note that there is no consensus on these issues and that the TWG will be at the forefront of developing thinking in this area.

## United Nations Sustainable Development Goals (SDG)

The Living Standards Framework (LSF) is a framework to engage across the four capitals, but it leaves the outcomes to political forces du jour. However, New Zealand, like every other country of the United Nations, has committed to the SDGs, which sets a global agenda for 2030. All key issues affecting NZ (as highlighted in the draft vision) fall both within the four capitals of the LSF and can also be viewed through the SDG lens. While the LSF helps consider impact in the domains of the capital stocks, the SDGs help to set and communicate (interlinked) goals.



Taxation is one – but not the only - tool to help us get to desirable societal outcomes. Reaching these (SDG) targets can be expensive and while there will be priorities in terms of which challenges need to be addressed first (e.g. political priorities), but we can not afford to leave any SDGs behind for long term, strong sustainability. Reaching for these targets also unleash opportunities.

- Given the purpose of ‘*environmental and ecological outcomes*’, this paper suggests a focus on SDGs 6 (Clean Water), SDG13 (Climate Action), SDG 14 (Life below water) and SDG15 (Life on Land). These are goals that fall within the realm of Natural Capital.
- SDG7 Clean/renewable and affordable energy, SDG9 Innovation and infrastructure, SDG11 Sustainable Cities and Communities, SDG12 Responsible Consumption and Production or even SDG3 Health may provide easier proxies for taxation.

### Time frame

Given that the ToR state an interest ‘*especially in the longer term*’, the issue of fairness of distribution for taxation purposes, from a four capital perspective, goes beyond horizontal and vertical fairness and adds a third dimension of *intergenerational equity*. This intergenerational equity includes equity for natural capital.

### Tax system fit to deliver on long term outcomes – examples only

SDGs	2020	2030	2050	Context
6 Clean water	Subsidies for water savings and developing a distributed resilient irrigation system  Water pollution tax Tax on nitrogen; input, modelled or by proxy	Water take tax  Multi-scale integrated catchment management	Sustainable, fair, people’s right and responsibilities in relation with river and coastal systems  Abandon when transition to low impact agriculture	Iwi Leaders Forum  MfE, National Freshwater Policy Statement
13 Climate Action	Minimum carbon tax	Comprehensive carbon tax and policy	Net or Absolute Carbon Zero	Climate Commission, ETS
14 Life below water	Review resource rent tax on unsustainable fishing practices and mining  Incentives for sustainable fishing practices and investment	Ecosystem-based management of coastal zones  Reduce various subsidies/distortions; review fisheries quota system  Resource rent on offshore mining and fisheries.	marine protected shoreline increased from 0.4% to e.g. 40%  Ecosystem based management of coastal zone in line with multi-scale integrated catchment management	Iwi Leaders Forum, MPI, MfE, DOC

	in coastal reserves			
15 Life on land	Reduce various subsidies; e.g. GST exemption for planting pine instead of natives; other easy ones?  Incentives for sustainable land use practices and investment in ecosystem restoration	Resource rent on water and on shore mining.  Multi-scale integrated Sustainability Policy	X% of forest and wetlands restored. Sustainable, integrated farming.  Regenerative economy	Iwi Leaders Forum, MPI, MfE, DOC
<i>SDG9 Industry innovation and infrastructure</i>	<i>Transport and congestion tax</i>			
<i>SDG12 Responsible consumption and production</i>	<i>Solid waste tax, e.g. plastic</i>	<i>Concessions for recycling or alternatives to plastics</i>	<i>Circular Economy</i>	

### Tax and the Environment I - frameworks

The Official's paper on Environmental Taxes is firmly rooted in neoclassical theory. This is helpful in connecting with the current understanding and extending marginal improvements. However, the framework should be critically assessed for a more systemic approach to complement or provide an alternative. For example, rather than aiming for 'pure' valuation for an externality or even natural capital and ecosystem services, an estimation of cost *and benefits* to transition to a solution could inform the level of a tax in light of the fiscal implications set by a 'transition budget'. The calculation of an externality requires a narrowly defined scope and is therefore based on assumptions that fall in the realm of the political economy. Market based tools are well suited to goods and services that are 'rival and excludable', but to overcome 'market failure', such is artificial and expensive in the case of environmental and ecological outcomes (e.g. ETS, nitrogen trading). Such tools become part of or are superseded by a tool box to achieve long term goals. From a systemic perspective, anticipated taxes can be reviewed for a purposeful transition to a more desirable public outcome, rather than as a general source of income in perpetuity. This does not have to undermine allowing a diversity of responses by the various agents in society. Rather than either/or, the merits of the reasons for using tax are both revenue raising, corrective and potentially funding solutions:

1. Revenue - to transition to a society that develops sustainably.
2. Price signals – to internalise externalities
3. Change behaviour – penalties and incentives
4. Hypothecated taxes – for clarity and transparency to help see results and fund desirable solutions.

## **Next steps:**

Next steps following Tax and the Environment:

1. *Testing and improving the framework*
  - Include 'strong sustainability' as a criterium
  - Consider long term goal/target orientation
2. *Resource – assessment*
  - Include thinking about solutions and/or concessions for business, land- and home owners who wish to invest in natural capital.
3. *Fiscal assessment*
  - Beyond the size of potential revenue given current modelling capacity in the proposed domains, include thinking about the size of the of cost of 'failure to transition' as well as gains when transitioning happens (and becomes tax-able).

## **Most relevant papers to date:**

- Tax and Environment – Paper I
- Review of other workstreams
- Vision - Andrea
- Maori engagement
- Framework paper
- CGT, Concessions

## **Glossary of terms and concepts:**

### ***Sustainability***

A confusing word....

Often used in the context of sustainable development, recognising that we live on a finite planet, it is used as an inclusive concept leading to sustainable wellbeing of people in societies.

Also used to express a desire to continue an activity; e.g. sustainable economic growth as measured by DGP.

### ***Weak Sustainability***

Weak sustainability assumes unlimited and unconditional substitutability between the four capitals; natural, social, human and built capital. This is the domain of environmental economics, were the assumption is that externalities can be adequately defined and internalised at the margin with conventional neoclassical tools. The four capitals are depicted side-by-side.

### ***Strong Sustainability***

Strong sustainability sees a limit to substitutability between the four capitals. A certain level of natural capital needs to be maintained to ensure its integrity, avoid thresholds of irreversible changes and maintain its ability to sustain human subsystems (i.e. societies comprised of social, human and built capital). Strong sustainability is depicted by a nesting the four capitals. It places

emphasis on intergenerational equity and fairness of distribution. This requires a transdisciplinary approach firmly anchored to a vision.

### ***Green taxes***

In 1996, Parliament was briefed on 'green taxes' (BP14) by Andrew Morisson. The conclusion seems to be; if an environmental problem is big enough, it may be efficient to raise a tax so that producers and consumers realign behind more efficient ways of dealing with the problem.

### ***Ecological tax***

A systemic shift by taxing 'bads' and reducing tax on 'goods'.

### ***Environmental tax***

Most often a Pigouvian tax to internalise externalities.

### ***Living Standards Framework***

In 2010, the Living Standards Framework (LSF) based on the four capitals emerged to guide impacts from policies beyond departmental silos. Originally, the LSF was depicted as the four capitals side by side, thereby implying weak sustainability. The current version of the LSF is depicted as interwoven capitals; implying a strengthening of the sustainability concept. The review of the LSF will signal if a further move toward strong sustainability is envisioned.

As a values-based framework, the LSF has the potential for policy makers in discussion with other sectors of society, to consider broader, systemic impacts of policy decisions, flagging the limitation of substitutability and consider intergenerational equity.

### ***Natural Capital***

Natural capital refers to all aspects of the natural environment. It includes individual assets such as minerals, energy resources, land, soil, water, trees, plants and wildlife. It also includes broader ecosystems and their services; that is, the joint functioning of, or interactions among, different environmental assets, as seen in forests, soil, aquatic environments and the atmosphere.

Or simply 'healthy functioning rivers, forests, coastal zones, salt marshes etc. which form the living system that people are part of and dependent on'.

The term 'Natural Capital' is contested in itself and depending on the interpretation and associated choice of tools, one can come to fundamentally different conclusions, as illustrated by a recent (February 2018) report 'The Start of a Conversation on the Value of New Zealand's Natural Capital' by Treasury; 'Overall, the key environmental indicators we looked at have been trending downwards and suggests that the overall state of the environment is declining. While the available New Zealand SEEA data are trending upwards, the existing quality and comprehensiveness of the data cannot be used usefully to inform the overall value of natural capital.'

### ***Productivity***

Labour productivity: Output per unit of labour input

Natural Capital productivity: output in Ecosystem Services per unit of Natural Capital.

### ***GDP***

Gross Domestic Product; market value of all final goods and services produced and exchanged.

Referring to market-based activities only, an imprecise measure of throughput, often assumed to reflect the wealth of a country.

Growth of DGP remains implicitly the underlying measure of 'productivity' and benchmark for a successful taxation system (30% of GDP), as per ToR.