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An Chomhairle Oidhre The Heritage Council





#### Report prepared by the Natural Capital Ireland Committee

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# Background.....

#### What is natural capital?

Natural capital applies the economic concept of capital to nature, and to the goods and services derived from all ecosystems. Thus natural capital represents the stock of natural resources, biodiversity and ecosystem processes that provide us with the ecosystem goods and services on which our lives and livelihoods depend.

However, our current economic indicators, such as GDP, capture only a fraction of the true value of natural capital. They may capture primary resource value – the timber value of a forest, for example – but generally omit the values of other benefits that the forest provides, such as flood and erosion alleviation, carbon sequestration, recreation opportunities, and so on. This means that the depreciation of natural capital through unsustainable primary resource exploitation often goes unnoticed – until it has disappeared. Understanding the crucial role of natural capital, and the need to account for, manage and where necessary, restore it, entails recognition that our economies are, in a very immediate sense, subsets of the environment.



#### The international context

Internationally, these ideas have been developed very considerably over the past two decades. Since the 1992 Rio Summit, where Agenda 21 was agreed, international parties have pledged to develop quantitative information regarding natural capital, and the ecosystem goods and services that flow from it. This led to the development of natural capital accounting to determine stocks of natural capital and flows of ecosystem goods and services to inform decision making in relation to the use of natural resources and investments in the restoration of depleted or impaired natural capital. In 2012, at the Rio+20 meeting, the Natural Capital Declaration was agreed, which essentially is a commitment by the financial sector. At the same time, the World Bank started the WAVES 50:50 initiative to improve efforts to incorporate natural capital accounting and enhance sustainable decision-making.



In 2010, the EU committed to the Aichi Accord at the CBD COP-10 to integrate biodiversity into national accounts, and the EC Communication Roadmap to a Resource Efficient Europe as well as the EU Biodiversity Strategy have pledged that proper natural capital and ecosystem service accounting should be in place by businesses and public authorities by 2020. Business and governments have begun to value ecosystem services in financial terms, under the banner of the "Green Economy".

Meanwhile, several private businesses, led by Puma in 2011 and followed by others such as Unilever and Coca-Cola, have already established natural capital accounting and have attempted to put a monetary value on the natural capital used to run their businesses, and have acknowledged their environmental debts as they appreciate that these can affect medium-to-long term profits.

Some environmentalists have been critical of the natural capital accounting approach, arguing that it is impossible, or even damaging to conservation goals, to put a price on nature. They have pointed out that in an era in which global trading of money, risk and derivative products is more profitable than actual goods and services, there is a risk that the financialisation of nature may just generate huge profits to financial and corporate actors, whilst not benefitting nature conservation. This is a threat to be constantly aware of.

Furthermore, some critics confuse natural capital accounting with crude attempts at offsetting. For example, the loss of an ancient woodland cannot be offset by a new plantation of an equivalent area as the latter could not replicate the biological and cultural values inherent in a long-established woodland. In fact, such poorly judged offsetting only reveals the failure to accurately value the natural capital inherent in the ancient woodland. The fundamental principle of proper natural capital accounting is to reveal the entire range of values in the environment, and to show that biodiversity is a great deal more valuable than is calculated in our dominant economic models.

#### The Irish Natural Capital Conference

This conference was organised to assist in mainstreaming these ideas in our society, and to better enable public and private agencies to establish sound metrics to incorporate the full range of values of our natural capital into their accounting systems. In Ireland, we are just beginning to address natural capital accounting, and thus the conference "*Natural Capital: Ireland's Hidden Wealth*" provided an opportunity for relevant financial, business and government stakeholders to engage with and progress this process.

The conference took place over one and a half days and was hosted by the National Botanic Gardens. Delegates heard from international and national leading figures in the field, including Rudolf de Groot, lead study author of the TEEB project; Micheál O Briaín, from the Natural Capital Directorate at DG Environment Brussels; Jo Pike, Project Manager for the World Forum on Natural Capital; Paul Harris from the Green IFSC; and James Aronson, Head of the Restoration Ecology Group, at the Centre for Functional and Evolutionary Ecology, in Montpellier. To ensure a balanced debate, economist Dan O'Brien of the Irish Institute of European Studies and *Irish Independent* newspaper group columnist presented a more sceptical perspective.

Irish case studies (woodlands and peatlands, the Burren and Dublin Angling Initiative) were presented and delegates participated in a mini-field trip to the "Irish habitats" feature in the National Botanic Gardens and heard from experts about the resources and services such habitats provide. Several government and statutory bodies were represented and also sponsored the event, including Minister Jimmy Deenihan, Dept Arts, Heritage and the Gaeltacht (DAHG), who addressed the delegates; Feargal O'Coigligh, Assistant Secretary, DAHG; Ciarán O'Keefe, Director, National Parks and Wildlife Service (NPWS), and Micheál Ó'Cinnéide, Director at the Environmental Protection Agency (EPA).



# Presentations by invited speakers.....



#### Rudolf de Groot, University of Wageningen

"Why should we value Natural Capital and some lessons learned from the global TEEB study"

The phrase "Nature is priceless" often means people treat it as worthless. Over the past decades TEEB and other studies have shown that the economic value of nature is considerable but the challenge remains how to turn this value into real money. This presentation reflected upon this question, gave some examples of the benefits of investing in maintaining and restoring Natural Capital and summarised the main lessons learned from TEEB in terms of how to adjust our "defective economic compass" (to quote TEEB's former study leader Pavan Sukhdev).

The cost of the loss of ecosystem services (e.g. erosion-damage, water-pollution, speciesloss) has increased from 2-5% GDP in 2002 to 13% GDP in 2012. The value of ecosystem services is often only recognised once they have gone. Interest in ecosystem services from scientists, policy-makers and the business community has increased strongly since the mid-1990's, among others after a publication in Nature<sup>1</sup> by Costanza *et al* (1997) which estimated the contribution of natural capital to the global economy at 33 trillion\$/year.

It is however important to recognise that not everything can nor should be calculated in money terms and that Nature also represents many cultural values. It should also be realised that there is a fundamental difference between pricing nature (which only includes the market value) and valuing it, which includes all the indirect benefits and non-use values. However, information on monetary values can help to highlight that only the 'profit', or interest derived from the capital should be used, and the capital itself should be kept intact.

Another message from macro-economic studies on the total monetary value of our natural capital is that consistently only 20-30% of the real value of nature is in the market which means that we live at the expense and livelihoods of the poor and of future generations. If we are honest about the economic value of natural ecosystems it will show that the benefits of nature conservation often outweigh the costs. Money spend on conservation and restoration of natural capital (or green infrastructure) should therefore not be seen as a cost but as an investment with very high benefits to human wellbeing and the economy. [1] Costanza, R, *et al.* (1997) The value of the world's ecosystem services and natural capital. Nature 387: 253-260



#### Micheál O'Briaín, DG Environment

"EU commitment and support"

The contribution this conference is making is welcome: Ireland has not yet been an active partner in EU valuation of natural capital. The 7th Environment Action Programme (EAP) will guide European environment policy until 2020 and aims to protect, enhance and conserve natural capital<sup>2</sup>. Natural capital is also at the core of the EU 2020 Biodiversity Strategy which has six thematic objectives, namely: 1. Full implementation of EU nature legislation to protect biodiversity; 2. Better protection for ecosystems, and more use of green infrastructure; 3. More sustainable agriculture and forestry; 4. Better management of fish stocks; 5. Tighter controls on invasive alien species; and 6. A bigger EU contribution to averting global biodiversity loss.

The ecological impact of the EU footprint on global biodiversity cannot be ignored. In the EU, one fifth of territory is in "high biodiversity areas" (Natura 2000 sites). The economic benefit associated with Natura 2000 sites has been assessed using a subset of measurable ecosystem services. However, the EU also recognises the importance of nature beyond protected areas (80% of territory), for example in green infrastructure. Key processes in Europe include developing a common currency to categorise and describe ecosystem services (Common International Classification of Ecosystem Services – CICES) to link ecosystem and socio-economic thematic assessments and to bring together understanding that we already have.

Furthermore, the process of Mapping and Assessment of Ecosystem Services (MAES), using CORINE, aims to map ecosystem services across Europe (using 11 ecosystem service categories, and examining drivers and pressures on each). It is important that businesses engage with natural capital but the Business Biodiversity Platform has had mixed success, despite one of the objectives of the 7<sup>th</sup> EAP being integration of economic values of ecosystem services into accounting and reporting in the EU by 2020. National Ecosystem Assessments have been carried out in some member states (e.g. UK and Spain). Ireland has not engaged fully so far, but the EU is keen to offer support. We need to make it clear to businesses that working with nature is in their strategic interests. Without the natural capital concept embedded in policy, we will continue to lose habitats and biodiversity. [2] http://ec.europa.eu/environment/newprg/



#### Feargal O'Coigligh, Dept. Arts, Heritage and the Gaeltacht

*"Ireland's commitment to natural capital accounting under the Biodiversity Action Plan"* 

Feargal presented an outline of the work done to date in Ireland in identifying the economic and social aspects of biodiversity and the challenges of incorporating the value of biodiversity into national planning considerations and national accounting systems, which is an objective of Ireland's 2011 National Biodiversity Plan.

Ireland is behind the game: we are one of only three EU states not yet engaged in Natural Capital Accounting. One challenge is the administration hurdle, specifically meeting Action 5 of the EU strategy, in terms of mapping our natural ecosystems. We need to bring this issue to a wider audience – it is not at the forefront of politics. Biodiversity as a concept has not caught the public eye in the same way as climate change has. Even in the face of severe weather events linked with climate change, it is difficult to encourage real behavioural change. Financial institutions and policies are focused on recovery from the economic crisis, not on biodiversity or ecosystem services. However, a return to economic growth must be sustainable.

In agricultural terms, there is a recognition that food production is linked to the natural environment, e.g. in terms of soil fertility and pollination, and the agrifood industry recognises that the green image they promote needs substance. The Dept. Arts, Heritage and the Gaeltacht (DAHG) and Dept. Agriculture, Food and the Marine (DAFM) are working closely with respect to the EU Common Agricultural Policy (CAP) reform and the new Rural Development Programme, and farmers and landowners need to be rewarded for the provision of public goods. Natural capital evaluation of the full range of benefits from sensitive habitats, such as bogs, could help manage conflicts associated with conservation of these habtiats.

We need to ignite the imagination of the public (and government) on biodiversity, natural capital and ecosystem services issues. The recent National and Economic Social Council (NESC) report on environmental data in Ireland highlighted a key gap: that we have not put a value on natural capital and that some baseline biodiversity data are missing. An integrated approach to meeting biodiversity targets is required – the onus cannot just be on one government department. At a local level, local authorities, councils and people need to incorporate the natural environment into local community life.



#### Jo Pike, World Forum on Natural Capital

"The UK experience"

How can we address the challenges associated with turning the debate on natural capital into action? To answer this question, Jo gave a brief overview of recent developments in the UK incorporating case studies on the inaugural World Forum on Natural Capital<sup>3</sup>, which took place in Edinburgh in November 2013, and the Scottish Forum on Natural Capital<sup>4</sup> which was launched at the World Forum. This presentation started with a video from the World Business Council for Sustainable Development, one of the partners in the World Forum on Natural Capital.

In England the government has established the Natural Capital Committee, chaired by Dieter Helm, which recognises that there needs to be an increase in understanding of the net benefits of natural capital to society, that ecosystems need to be integrated into decision making, and they have proposed a 25 year plan for maintaining and improving England's natural capital. In Scotland, a Natural Capital Asset Index<sup>5</sup> has been developed by Scottish Natural Heritage: this is a non-monetary index based on seven ecosystems.

Language is key: even specialists do not always speak the same language. To help create a common language and communicate with the non-usual suspects the World Forum on Natural Capital produced a sustainability jargon buster<sup>6</sup> and an infographic to explain natural capital<sup>7</sup>. The next world forum will be held in Edinburgh in November 2015 perhaps it will be possible to showcase development in Ireland by then?

[3] http://www.naturalcapitalforum.com/

[4] http://naturalcapitalscotland.com/

[5] http://www.snh.gov.uk/docs/B814140.pdf

[6] http://www.naturalcapitalforum.com/blog/blog/108/Sustainability-Jargon-Buster-10-essential-terms-for-CEOs

[7] http://www.naturalcapitalforum.com/blog/blog/200/Cant-see-the-TREES-for-the-WOOD



#### Paul Harris, Green IFSC

"Natural capital: risks and opportunities for Irish businesses"

This talk outlined the factors driving the corporate world to consider resource scarcity in the context of natural capital, and examined the business risks and opportunities presented by this paradigm shift. It identified the comparative advantages that exist in Ireland in terms of developing new enterprises centred on natural capital and offered some suggestions for policy-makers and strategists for ways to harness these advantages for economic and social benefits for the wider Irish economy. During the recent financial crisis which led to economic monetary loss, Ireland was bailed-out by pumping a huge amount of money into the system. Similar drivers have resulted in loss of nature – where is the bailout for nature going to come from? Businesses get €7.3 bn from nature for free. Increasingly, businesses accept this should be paid for.

Environmental reporting may be beneficial. For example, all UK companies have to report their carbon outputs. This can help to identify risks in the supply chain and development of future strategies. Risk and opportunities for companies can occur at the operational level, through regulation/legal instruments, for marketing/products and through financing. Ireland could be promoted as an optimal test bed for eco-industries, tourism, research and development, agrifood, finance, knowledge and renewable energies. This could boost indigenous industries.

A national Natural Capital Strategy could help, as could options such as a Habitat Bank. Natural Capital is our hidden wealth - a comparative advantage for Ireland. We should become the biodiversity gold standard for the EU. Every euro spent on biodiversity/enhancing natural capital has multi-sectoral benefits.



# Dan O'Brien, Institute of International and European Affairs

"An economist's response"

Dan gave a response to, and critique of, the morning's presentations from his experience and perspective as a mainstream economist.

The Greening of GDP is an incredibly important issue. Keynes reminds us: ideas matter, and in the end they are all that matters. The valuation of the environment is an increasingly important key idea. But proper evaluations are necessary. It is important to make a distinction between stocks and flows: wealth (natural capital) is a stock, income (ecosystem goods and services) is a flow. You need good numbers. Remember Gallileo: "Measure what is measurable, and make measureable what is not measurable." Many economists feel that the problem of natural capital loss will resolve itself with technological innovation. For example, that renewable energies will price themselves into the market. One practical example of building environmental values into economic policies could be the ring-fencing of a carbon tax, so that credits from it were paid to landowners and farmers for restoring wetlands.



#### Micheál Ó'Cinnéide, EPA

"Natural capital and environmental protection: reality and practice in Irish case studies"

The concepts of ecosystem services and natural capital have come to Ireland in recent years, strongly influenced by assessments and plans from the European Union and the European Environment Agency. They are becoming a core element of Irish policy, of assessments and plans on the environment and biodiversity. Increasingly, natural capital and ecosystem services are considered in the preparation of regional plans, such as in the Shannon estuary. Practice is evolving more slowly, but the four case studies at this meeting illustrate that we are "learning by doing" in relation to the natural capital of woodlands, bogs, angling habitats and farming in the Burren.

It is important that we speak the same language: a good outcome of this meeting would be to give common meaning to words like natural capital and ecosystems. At present there is no common thinking or framework in agencies such as EPA to bring this forward. The National Biodiversity Plan recognises that we have challenges in this country and need a new approach. We have a long way to go to mainstream this issue, and this needs to be done by more than one agency. An annual programme of Natural Capital Ireland meetings is suggested and the EPA will support this.



#### Declan Little, Woodlands of Ireland

"The natural capital of native woodlands in Ireland"

Traditionally, native woodlands were viewed as having little or no value primarily because only the economic timber value was considered. In recent times, biodiversity, recreation, carbon sequestration, water quality and other native woodland ecosystem services have become increasingly important as reflected in current forest policy and their contribution to public goods discussions. This presentation outlined current and projected economic values of the ecosystem services provided by native woodlands based on a report commissioned by Woodlands of Ireland in 2012. Currently, Ireland's existing area of native woodland has an economic value of at least €100 million/annum. Natural capital estimates were presented for increasing native woodland cover by up to 100% of total current forest cover. In addition, the benefits of enhancing some native woodlands, were presented.



#### Brendan Dunford, Burren Farming for Conservation Project

"Valuing Natural and Cultural Capital in the Burren"

Brendan spoke on the theme of 'realising' natural capital. He explained how a simple, 'pay-for-performance' model has been developed and applied in the Burren through which farmers are encouraged to enhance the quality of natural capital on their holding, in terms of its biodiversity and heritage values, and rewarded in accordance with their success in achieving this. Brendan also discussed future options for unlocking the natural and cultural capital of the Burren for the long term benefit of the local community and their heritage.



#### Catherine Farrell, Bord na Mona

"Investing in Irish Peatlands"

Ireland has a rich and varied peatland heritage. For centuries peatlands - bogs and fens - have been used for their range of ecosystem goods and services. The direct values include the traditional use of turf as a domestic fuel source, the contemporary use of milled peat in three peat to power electricity stations in the midlands, and the horticultural use of peat as a growing medium, both domestically in Ireland and abroad. Peatlands have also been traditionally used for agriculture and in the latter half of the last century they were drained extensively for public and private forestry enterprise.

There is a however a growing awareness of the role that peatlands - both in their intact and modified state - play in terms of global climate regulation, water quality, flood mitigation, biodiversity and a range of other services and benefits, both direct and indirect. Bord na Mona has been working on peatlands for over 80 years and as peat production areas emerge as cutaway bog, these areas present opportunities to invest in the services and benefits that these modified peatlands can provide.

Biodiversity, carbon capture, renewable energy, water storage, and a range of other opportunities are being explored to maximise environmental, social and economic benefits now and into the future. Some of these opportunities were explored in this presentation.



#### Des Chew, Dublin Angling Initiative

"Social Capital: Values of the Dublin Angling Initiative"

The Dublin Angling Initiative (DAI) was set up in 1995 to promote, develop and improve the angling resource in the Greater Dublin area. The project is sponsored by Inland Fisheries Ireland. Its principle aim is to improve access to angling for young people from marginalised communities. Since 1995, more than 10,000 teenagers have participated in DAI-run programmes, which has contributed enormously to the enhancement of social capital values within urban Dublin communities. In particular, local communities have been empowered through outreach programmes and ongoing partnerships resulting in the provision of angling facilities and the co-ordination of regular angling events. Though an economic assessment has not been carried out on this project it is clear that the social and environmental benefits are a considerable multiple of the approximate €10,000 annual investment this project receives.



### James Aronson, Centre d'Ecologie Fonctionnelle et Evolutive

"Pioneering Projects in Restoring Natural Capital, integrating benefits to people and ecosystems - Examples from the Developing World."

Ecological restoration and the Restoration of Natural Capital (RNC) can be bridges between nature conservation and sustainable economic development, especially in developing countries with mega-diversity. James gave several examples of where RNC approaches had enabled local communities in countries such as Brazil, Colombia and South Africa to engage with conservation initiatives while enhancing their incomes and social well-being. He also gave us a master class in the evolution of terms like natural capital, ecosystem goods and services, and the overlap and distinctions with analogous concepts like ecological infrastructure, natural assets, natural heritage, and natural wealth.

He argued that the developed world generally consumes too much natural capital, increasingly sourcing it in the developing world, leaving the people of the latter with degraded and depleted natural capital stocks. They are thus often condemned to consume less than humans need to thrive, and in many cases even to survive. He suggested that the essential feedback loop to convey this dire situation to decision-makers is currently blocked, and needs much better communication of the natural capital concept in order for critical information to flow through the loop and enable us to collectively correct this imbalance and this unsustainable and unjust arrangement that is ruinous for us all in the long run.



# Plenary Discussions, final statement, and core proposal going forward.....

#### Towards the establishment of a Natural Capital Forum

Following the formal presentations and questions for presenters, there was a discussion period, chaired by Paddy Woodworth. Participants were given a list of potential questions for debate (which can be seen on the Natural Capital Ireland website www.naturalcapitalireland.com), and free-ranging discussions from the floor were facilitated, with a high level of participation from many of the 110 attendees. A summary of these discussions is outlined below.

Whilst Ireland was considered to be behind some countries in terms of natural capital accounting, it was highlighted that there has been interest and investment, for example through the Native Woodlands Scheme, development of green/ecological infrastructure by some local councils (e.g. Fingal, Dun Laoghaire-Rathdown), and agri-environment schemes (formerly the Rural Environmental Protection Scheme (REPS) and now the Agri-Environment Options Scheme (AEOS)).

In some cases, cost-benefit analyses have been conducted (e.g. the Native Woodlands Scheme has received around €30million of investment over the past 13 years, and the value of native woodlands has been estimated at around €100million per year) and on-going EPA-funded research at UCD (www.ecoplan.ie) is taking an ecosystem services approach to green infrastructure. It was concluded that there is the enthusiasm and opportunity, that there is the momentum, to progress natural capital accounting, but a framework and structure to progress it is lacking. Approaches were thought to have been local in focus thus far, but regional level planning is required, with integrated policies and long term planning. Furthermore, it is vital that the agricultural and marine sectors get involved, and these sectors were under-represented at the meeting.

In terms of moving forward, it was recognised that a mechanism is required: how can landowners be rewarded for the natural capital and ecosystem goods and services they already manage, and how can we pay people to manage and restore them? Several options were suggested, including consumers, the government, tax payers and businesses. For example, businesses can be encouraged to think about how their activities, products and services affect natural capital and ecosystem goods and services (which many environmental policies do not currently consider), and bring them into the tendering process (e.g. a business may win more tenders if they work in a way which is less damaging).

Additionally, one approach is to make it clear to businesses what the cost of inaction will be, and the benefits of engaging with the issue. In Ireland, with high prominence of the agri-food and tourism sectors, this should be relatively simple. However, in some cases, there may be short-term sacrifices to be made for long term benefit and the business community needs to be convinced that natural capital accounting is not a mechanism for shutting down businesses and destroying ways of life. Again, this supports the idea that long-term, regional planning is needed.



One impediment to progress is a lack of understanding. People, both in the general public and practitioners, need clear and simple messages, not confusing and cumbersome terminology and mixed messages. For example, a politician may make a statement about the high quality of the natural environment in order to demonstrate what progress has been made whilst they have been in office. This can hinder environmental restoration and/or protection. Thus it is crucial that politicians appreciate that natural capital and ecosystem goods and services are important and officially recognise that problems exist. It needs to be made clear that managing and accounting for these things is in the national interest.

It was considered important that Irish people and institutions, both private and public, recognise that natural capital and ecosystem goods and services are crucial. Some suggested that a public campaign was necessary (in the same vein as 'reduce, reuse and recycle') to make people more aware of the issues. In addition, people need to recognise that beyond Ireland, our activities have impacts on the global biosphere, and we should work to reduce our consumption of, and impact on, global natural capital.

The meeting unanimously accepted the core proposal that a National Natural Capital Forum be established, and the Committee is now exploring how best to do this, with assistance from the EPA, NPWS and other agencies, businesses, and individuals.





## Where do we go from here?

Ciarán O'Keefe, Director, NPWS

#### Where do we go from here?

- Disseminate conference outputs widely.
- Establish a Natural Capital Forum, maintain the Natural Capital Ireland website, etc.
- Convene an early meeting of key players (including, academics from TCD, UCD, NUIG; Green IFSC/businesses; Department of Finance/Public Expenditure; landowners/landusers (including marine); EPA; DAFM, DAHG, Dept. Energy, Communications and Natural Resources, Department of Health and Children; OPW (Botanic Gardens, Green Procurement); National Economics and Social Council, Central Statistics Office; businesses including Bord na Mona, Coillte, Irish Water, ESB; Failte Ireland; Politicians, perhaps the Chair of the Oireachtas Environment Committee.
- Involvement of small and big businesses is critical.
- To ensure an all-island approach, we need further input from Northern Ireland.
- The Forum needs to be made relevant to each of the organisations listed above to engender their participation.

#### What should the Forum do?

• Develop a short set of action points (that are achievable in approximately two years) and identify potential funding for work - both research and implementation.

#### Other aspects/considerations:

- Would it be useful to put the Forum on a statutory footing?
- Look at existing frameworks (MAES, IPBES) and methodologies already available, such as No Net Loss proposals (and others, as they develop).
- Learn from the Scottish Forum on Natural Capital.
- Ultimately it's about public awareness. Decisions are made on foot of political pressure. The Forum needs to get the message out there, especially through the media. Get people interested and take it forward.

#### **Conclusions: Key messages from the conference**

- The Natural Capital concept is a vital tool for the proper valuation of our environment and the protection of biodiversity.
- The concept is entering the mainstream of public debate, but needs to be communicated more clearly, more accurately and more comprehensively. This requires:
  - A common, agreed and consistent language, a simple language.
  - Engagement from across agencies, NGOs, academia, etc.
  - Engagement from different disciplines not just ecologists, also financial sectors, economists, etc.
  - Engagement by the general public.

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• These goals can be progressed by establishing a National Natural Capital Forum.

For more information, please visit **www.naturalcapitalireland.com** To contact the conference organising committee, email **naturalcapitalireland@gmail.com** 

L-R: Brendan Dunford, Micheál O'Briaín, Declan Little, Hannah Hamilton, Cara Augustenborg, Minister Jimmy Deenihan, Paddy Woodworth, Jane Stout, James Aronson, Matthew Jebb and Catherine Farrell at the National Botanic Gardens