

THE POST- COVID-19 GREEN ECONOMY





The Post-COVID-19 Green Economy

The post-COVID-19 reconstruction phase should be centred around the green economy, the concept of which enables economic growth and investment while increasing environmental quality and social inclusiveness. A variety of fiscal and non-fiscal policy tools are available to facilitate the transition to a green economy.

In its simplest form, a green economy is low carbon, resource efficient, and socially inclusive. In this type of economy, growth in income and employment are driven by both public and private investments that reduce carbon emissions, enhance resource efficiency, and prevent the loss of biodiversity and ecosystem services.

A key component of this economy is that economic development views natural capital as a key economic asset and as a source of public benefit. The overall aim of a transition towards a green economy is to enable economic growth and investment while increasing environmental quality and social inclusiveness.

The green economy approach is a shift away from the short-term understanding of environmental considerations as a cost factor that constrains economic growth and reduces competitiveness. Instead, it views these considerations as fundamental to the long-term sustainability of economic growth. Overall, the green economy is one that results in 'improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities'.

Green Growth

The green paradigm indicates that the previous approach to growth, such as polluting and degrading the environment first and then cleaning up and restoring the environment afterwards, must be suspended. Instead, a new path should advocate sustainable development that protects the environment.

Green growth has emerged as a new development paradigm to respond to the traditional unsustainable energy and carbon-intensive models that are based on economic growth without consideration for the environment. According to the Organization for Economic Co-operation and Development (OECD), green growth is about fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. 'To do this, green growth must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities'.

Green growth is relevant to both developed and developing countries. Developing countries can 'leapfrog' old solutions and adopt new technologies and ideas to coincide green growth with sustainable development. Meanwhile, in developed countries, the transition towards green growth will involve changes to lifestyles and reduced consumption of natural resources to sustainable levels.

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A variety of characteristics attributed to green growth include more effective use of natural resources in economic growth, valuing ecosystems, inter-generational economic policies, increased use of renewable sources of energy, protection of vital assets from climate-related disasters, and reduced waste of resources.

Objectives of the Green Economy

While there are many definitions of the terms ‘green economy’ and ‘green growth’, the terms are broadly characterised by three objectives of improving resource-use efficiency (a green economy is one that is efficient in its use of energy, water, and other material inputs), ensuring ecosystem resilience (it also protects the natural environment, its ecosystems, and ecosystem flows), and enhancing social equity (it promotes human well-being and a fair-burden sharing across societies).

Fiscal Tools

A green economy seeks to drive green growth, create green jobs, enhance the environment, eradicate poverty, and ensure social equity by shifting the focus of investments from ones that are resource intensive to investments that reduce water-energy-food nexus pressures and create multiple economic, environmental, and social benefits. In this context, fiscal policy tools provide a critical set of instruments for building the green economy by pricing environmental externalities and redressing social impact.

Market-Based Instruments and Pricing

A central aspect of encouraging green growth is integrating the natural asset base into everyday market decisions. This can be achieved through the use of market-based instruments and pricing, including levies, charges, tradeable permits, soft loans, and so forth, which have numerous benefits including:

- *Providing flexibility in achieving natural resource consumption targets:* Economic instruments ensure an overall economy-wide cost of meeting specific targets is reduced by allowing the market to determine how much resource use, or pollution, is achieved
- *Providing an incentive for the development of new technologies:* Economic instruments provide incentives for firms to develop new technologies that can be sold to others to reduce their resource consumption
- *Allocating environmental and natural resources to parties who value them the most:* Economic instruments enable the fair allocation of environmental and natural resources and encourage their sustainable utilisation while at the same time raising revenue for governments in the form of resource rents

CASE: Vancouver’s Seasonal Water Rates

In Vancouver, the price of water increases by around 25% during the drier months, compared to the low-peak rate from November through May, to reflect the added cost of supplying water to the city. The summer surcharge enables the city to meet its Greenest City 2020 goal of reducing water consumption by 33%, which has two benefits for all of Vancouver residents:

- It helps reduce the strain on the city’s existing water system, eliminating the need for costly system upgrades that could lead to higher utility rates
- It helps the city live within its water means, ensuring all residents have access to abundant safe, clean water no matter how much the city grows

Environmental Taxes

Environmental taxes aim to raise the cost of production or consumption of environmentally damaging goods so as to limit their demand. In the green economy, environmental taxes shift the tax burden away from labour—a ‘good’—to environmental ‘bads’ including pollution and the inefficient use of resources. Specifically, by putting a price on environmental externalities, it can reduce pollution and

increase resource efficiency in the most cost-effective way and promote behavioural change in consumers and economic sectors.

CASE: Case: Spain’s New Tax on Plastic Waste

In June 2020, the Spanish Cabinet approved a draft law that introduces a new tax on plastic waste. The indirect levy will tax the manufacture, import or acquisition of non-reusable plastic packaging from other European Union countries for use in Spain. It would require payment of €0.45 per kilogram of plastic packaging, and it is projected to bring in annual revenue of nearly €724 million. The tax is part of a wider government aim of reducing waste generation by 15% in 2030 from 2010 levels. Currently, Spain only recycles 37.8% of its waste.

Financial Incentives

Many governments use financial incentives to encourage the building of sustainable and resilient infrastructure, promote economic growth hubs, provide services, assist populations to adapt to climate change, and facilitate the adoption of green technologies and practices. This financing mostly comes in the form of subsidies and grants, which are used as ‘carrots’ to encourage producers as well as consumers to make sustainable consumption choices by closing the price gap for more sustainable products or create significant rebates for their use.

CASE: Sustainability Victoria’s Grants to Enhance Resource Efficiency

Sustainability Victoria, Australia, has launched its Boosting Productivity Materials Efficiency Grants Program to help manufacturers make significant material efficiency gains in their transition towards the green economy. With the programme open to any manufacturer with less than 200 full-time employees, funding is available to help the companies look for materials efficiency solutions that result in more efficient use of materials and less waste sent to landfill. Grants of up to \$13,000 are available per business: Up to \$10,000 is available for use for expert advice from a materials efficiency assessor consultant who will work with the business to tackle the root cause of the waste problem, help the business understand the true ‘cost’ of waste, and develop a business case for investing in cost-effective solutions. Up to \$3,000 is available to help put in place materials efficiency solutions. Furthermore, the programme is non-competitive with a Business Productivity team advisor available to help all applicants through the application process.



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Payments for Ecosystem Services

Payments for ecosystem services (PES) are one of the principal ways in which a market for ecosystem services can be established with payments made to landowners and others to undertake actions that increase the quantity and quality of desired ecosystem services, which benefit specific or general users, often remotely. Specifically, a PES is a voluntary transaction in which a well-defined ecosystem service or a form of land use likely to secure that ecosystem service is bought by at least one ecosystem service buyer from a minimum of one ecosystem service provider if and only if the provider continues to supply that service. PES are being created to invest in the restoration and maintenance of specific ecosystems and the services they provide. The key characteristic of these PES deals is they focus on maintaining a flow of a specified ecosystem service, for example, clean water or carbon sequestration capabilities in exchange for something of economic value. The critical defining point of a PES transaction is not whether money changes hands and an environmental service is restored or maintained but whether the payment causes the benefit to occur where it would not have otherwise.

CASE: Water Quality Trading in the Ohio River Basin

The Ohio River Basin Water Quality Trading Pilot Project is a first-of-its-kind interstate programme that spans Ohio, Indiana, and Kentucky to evaluate the use of trading by industries, utilities, farmers, and others to meet water quality goals while minimising costs. The water quality trading programme, a market-based approach to achieving water quality goals, allows permitted dischargers to generate or purchase pollution reduction credits from another source. The premise of the water quality trading programme is that: 1. Facility A, for example, a wastewater treatment plant, needs to meet nutrient limits for its water quality permit and therefore water quality trading is one option. 2. To reduce nutrients in the watershed, Facility A pays Farmer B to do a variety of things, for instance, reduce fertiliser use, plant stream side buffers with trees, or keep livestock manure from getting into the waterways, with each conservation practice verified. 3. Nutrient reductions are quantified as credits, for example, equal to one pound of nutrient reduction. Credits are then reviewed and approved by a regulatory agency. 4. Facility A can then use those credits to meet permit requirements.

Non-fiscal Tools

Governments can use a variety of non-fiscal tools to promote the development of green growth-related technologies and services. They can also use a variety of non-fiscal tools, including education, skills development, and awareness-raising to modify the attitudes and behaviour of society towards natural resources to reduce water-energy-food nexus pressures and achieve a green economy.



Regulations

Regulations control behaviour and are enforceable through policing institutions and penalties for failure to comply. Regulations encourage or restrict economic activities through the legal system, for example, granting of licences or permits and regulating the labour market. The purpose of regulation is not only to dissuade people from certain behaviours but also to encourage other behaviours. Most regulations work effectively in establishing compliance among affected populations, provided the rules are reasonable and enforced. Regulations work most effectively when the rules are established in consultation with affected populations. Overall, regulations influence green growth by encouraging production efficiency and reducing the number of by-products, while enhancing product market competition. Effective regulations include performance and technology standards, which are useful for reducing negative externalities when market prices fail to reflect some of the cost of economic activities.

CASE: The City of Boston's Building Energy Reporting and Disclosure Ordinance

The City of Boston's Building Energy Reporting and Disclosure Ordinance (BERDO) requires Boston's large- and medium-sized buildings to report their annual energy and water use. It also requires buildings to complete a major energy savings action or energy assessment every five years. In 2020, BERDO requires the following portfolios to report their annual energy and water usage for the 2019 calendar year: Non-residential buildings that are 35,000 square feet or larger, residential buildings that are 35,000 square feet or larger or have 35 or more units, and any parcel with multiple buildings that sum to 100,000 square feet or 100 units. To enhance transparency, the City of Boston allows the public to search the publicly disclosed energy and water database. This helps property owners and interested stakeholders to understand how a building's performance compares with similar buildings nationally. They also learn, after public disclosure, how the building compares with other Boston buildings. Furthermore, the City of Boston provides an online map that shows the energy and water metrics for all reporting buildings across Boston.

Standards and Mandatory Labelling

Mandatory government actions to promote sustainable consumption include performance standards and mandatory labels to limit environmental damage from products when they are consumed or used. These tools are designed to eliminate unsustainable products from the market. The most common sustainability-related performance standards are aimed at reducing energy use, for example, increasing energy efficiency in household appliances.

CASE: Europe-wide Energy Efficiency Labelling of Products

The European Union's energy label ranges from A (more efficient) to G (less efficient). The label is uniform across the continent and is language-neutral. In addition to pictograms indicating the energy efficiency class, it gives consumers information about annual energy consumption and other product specifics, such as the water consumption and water-extraction efficiency of washing machines. Currently, the label must be applied to 16 groups of products (including standard household devices, TV sets, and boilers). As of 2019, all products subject to energy labelling are included in a dedicated product database, which is available to consumers wishing to compare products' energy efficiency, and to market surveillance authorities monitoring compliance with the labelling requirements.



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Information and Awareness-Raising

Information and awareness-raising campaigns are commonly used to promote sustainable consumption of resources, such as the benefits of purchasing environmentally friendly goods and services. As well as campaigns providing information on how sustainable consumption choices can be made, governments can ensure the private sector has access to environmental information to make consumption decisions. A further benefit of easy access to adequate and relevant information is that it can minimise possible conflicts and play a significant role in helping reach a consensus in society.

CASE: Dubai's Let's Make This Summer Green Campaign

Dubai Electricity and Water Authority (Dewa) has launched in 2020 the fifth 'Let's Make This Summer Green Campaign'. This year's theme, 'Start Conserving Now', has a number of simple guidelines to reduce the use of electricity and water in summer and help consumers adopt a greener lifestyle. The initiative encourages households to use the 'My Sustainable Living' programme that enables customers to compare their monthly electricity and water use with the average of similarly efficient homes. Over the period 2009 and 2019, Dewa's conservation programmes and initiatives have achieved cumulative savings of 2.2 terawatt-hours of electricity and 7.8 billion gallons of water, saving the Emirate Dh1.3 billion and reducing carbon emissions by 1.136 million tonnes.

Resource Mapping

To identify opportunities for targeting resources and policies to meet sustainability goals, governments often need detailed information on the current and future geographical distribution of resource use at various scales. Resource-use maps can contain data on existing and projected resource consumption, present and future population density and land-use type, sources of surplus, large resource consumers, current networks and potential network routes, barriers and opportunities, and socio-economic indicators. These maps can then be used to identify opportunities for investment as well as facilitate stakeholder engagement and raise public awareness on ongoing projects and their benefits.

CASE: Dublin's Spatial Energy Demand Analysis

In 2015, Codema published the first Dublin City Spatial Energy Demand Analysis (SEDA) for Dublin City Council. The SEDA involved mapping of local energy demand and matching it to the best local resources, helping to deliver the most sustainable solutions for energy consumption now and into the future. By using SEDA, the Council can make more informed decisions about how energy will be provided for in the city as well as identify opportunities for energy and carbon emission savings. SEDA was created by referring to, analysing, and mapping the results of over 200,000 households, 20,000 commercial properties, and 1,000 local authority energy accounts across the city. SEDA provides detailed information on more than 2,000 small areas of the city including total energy demand, total heat demand, heat demand density, total electricity use, total fossil fuel use, and areas at risk of fuel poverty.

Conclusion

The green economy in the post-COVID-19 world can be actioned by innovative fiscal and non-fiscal tools that encourage water conservation, promote resource efficiency in industrial processes, lower pollution in waterways, facilitate energy and water conservation in buildings, encourage the purchasing of environmentally-friendly goods and services, create a resource-conscious society, and enable energy-savings and reduce carbon emissions in populated areas.



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