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CONCEPT NOTE

WEBINAR:

CONTEXTUALIZING THE CIRCULAR ECONOMY FOR ACTION

A FEW PERSPECTIVES FROM ASIAN COUNTRIES

4 February 2021, Thursday | 14.00 hrs

Bangkok Time ICT (Indochina time) UTC/GMT +7 hours

Date:
4 February 2021, 2 – 3:30 pm [BKK time / GMT +7 hrs]

Duration:
90 mts

Organizers:
Asian Institute of Technology, Bangkok, Thailand and the United Nations Environment Programme (Regional Office for the Asia-Pacific)

Format:
Online

Speakers:
HSD'91 Graduates

SDGs1 8 Decent Work and Economic Growth

SDGs9 Industry Innovation and Infrastructure

SDGs11 Sustainable Cities

SDGs12 Responsible Consumption and Production.[1]

The basic aim of the webinar is to understand the concept of a "Circular Economy" from the context of developing economies in Asia. It explores the dimensions of a circular economy as the nexus of four key issues – Food, Energy, Water and Waste, the the "FEWW Nexus". It is targeted at national and local government officials (and their stakeholders) responsible for developing circular economy policies and action.

The webinar presents the "GET Matrix" as a concrete multi-stakeholder policy tool, bringing together three policy patterns – the Global-National-Local pattern; the Governments- Business-Civil Society pattern; and the Governance-Education and Technology pattern.

The webinar and its subsequent outputs are being presented by graduates of the now-subsumed Human Settlements Development Division of the Asian Institute of Technology, who graduated in 1991. Each presenter will take up one element of the circular economy, and will present examples and priorities for the specific country of their residence.

[1] *Please see Appendix 1 for a quick explanation of these SDGs*

Concept Paper[2]

1. What is a Circular Economy?

A circular economy (CE) is based on the principles of ensuring that production and consumption systems contribute to sustainable development, including minimizing waste and pollution, reusing and recycling products and materials, regenerating natural systems, and other issues related to a sustainable lifestyle.

The concept is not new – it derives its initial inspiration from the "3R" approach – reduce, reuse, recycle. Various other concepts and approaches have since been incorporated and linked to under the broader umbrella of the CE concept, including the ones listed in *Table 1*

Table 1: Sustainability Concepts subsumed under that of a "Circular Economy"

Concept	Description
Sustainable Consumption and Production (SCP)	The use of services and related products, which respond to basic needs and bring a better quality of life, while (1) minimizing the use of natural resources and toxic materials and (2) reducing the emissions of waste and pollutants over the life cycle of the service or product
Life Cycle Analysis (LCA)	The systematic analysis of the potential environmental impacts of products or services during their entire life cycle. It covers all relevant inputs from the environment (e.g., ores and crude oil, water, land use) as well as emissions into air, water and soil (e.g., carbon dioxide and nitrogen oxides).
Environmental Impact Assessment (EIA)	A process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse.
Environmental Management Systems (EMS)	A set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. It is based on the Plan- Do-Check-Act model of improving an entities environmental performance.
Eco-Labelling	A voluntary method of environmental performance. certification and labelling that is practiced around the world. An ecolabel identifies products or services proven to be environmentally preferable within a specific category.
Green Procurement	Ecologically responsible practices in business activities used to meet needs for materials, goods, utilities and services. It focuses on the procurement policies of entities such as businesses, government agencies etc. and their environmental impacts.
Extended Producer Responsibility (EPR)	A policy approach under which producers are given significant responsibility – financial and/or physical – for the treatment and disposal of post-consumer products. It may be applied to new products, product groups and waste streams such as electrical appliances and electronics.
Corporate Social Responsibility (CSR)	A self-regulating business model that helps a company to be socially accountable—to itself, its stakeholders, and the broader public. By practicing CSR, companies can be conscious of the kind of impact they are having on all aspects of society, including economic, social, and environmental.

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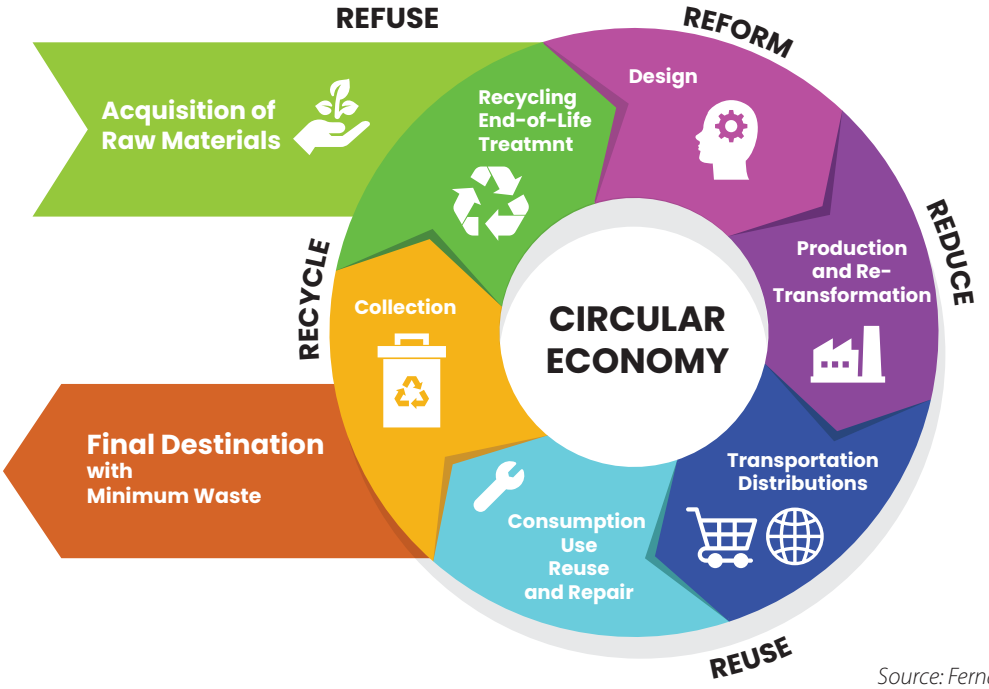
[2] The preparation of this Concept Note has greatly been benefited by comments and review of all the speakers of the webinar: Nurunnahar Mili, Pham Khanh Toan, Bhuvaneswari Raman, Moe Moe Lwin, Kyoko Kusakabe, Indira Dasgupta, Win Myo Thu, and Wicha Chanchur. The paper was written by Hari Srinivas.



Source: Fernandes, 2020

Figure 1: A Circular Economy Model

There are a number of components of a well-functioning circular economy that we need to keep in mind. At its core, a circular economy looks at the economic functions of production and consumption from a sustainability perspective (and not just a profit motive). It looks at all aspects of a product, in its entire life cycle from its design stage to the final disassembly/disposal stages (as illustrated in Figure 1). So for a country's economy to become "circular" policies, strategies and laws/regulations need to be implemented with a number of new ideas in mind:

- **Design for the environment:** Products and services (whether produced by private entities or public agencies) will have to be designed for the environment (DfE). Right at the design stage, the product/service not only takes into account aesthetics and convenience in using the product, but also issues such as using less natural materials (and more recycled materials), using less energy in production and use (and using more renewable energy), maximum recycling of product components and materials, and designing for easy disassembly so as to facilitate recycling and reuse.
- **Preserve and extend product lifespans:** Inherent in a circular economy's products and services is need to preserve and extend a product's life span – to facilitate material efficiency and longer use, and to reduce wastes generated from discarded products.
- **Prioritize renewable/reusable resources:** At every stage of a product/service's life cycle, priority has to be given to ensure both resource efficiency and energy efficiency – in making sure that material and energy resources are obtained from renewable or reusable/recyclable sources.
- **Use waste as a resource:** By-products generated at every stage of a product or service's life cycle, which would otherwise be considered as "waste, " can and should be reused/recycled, that is, returned as a resource to the product's lifecycle, or used as a input in another product. Such "wastes" can be both materials and energy resources.
- **Rethink the business models:** While the primary focus of a circular economy is material and energy efficiencies, many countries and businesses are attempting to develop new business models that highlight circularity, models that also take into account economic and financial instruments that facilitate and promote circular economy. These include, for example economy wide investment in green technologies, subsides for developing environmentally friendly technologies and products, taxes and fines for industrial emissions/pollution etc. New business models, for example, focus on developing products for "Pay to use" instead of "ownership", where the producer remains the product's owner (facilitating recycling and recovery, while extending product lifespans).

What becomes clear is that we need an approach [PBL, 2019] that goes beyond the traditional "3Rs" or reduce, reuse and recyle. to include, for example –

- Rethink (Using resources more efficiently by changing the way we think about products and production processes. Is the product the best way to meet the demand? Could we use fewer or different resources in its production?),
- Redesign (Design differently; for example, by considering reuse, repair and recycling options in advance of production.)
- Repair and remanufacturing (Product repair, maintenance and revision in order to reduce material use)
- Recycling (Processing and reuse of materials.); recover (Recover energy and materials from products.)
- Disposal (Waste disposal and incineration without energy recovery is avoided where possible.).

2. The FEWW Nexus

Operationalizing the circular economy concept requires us to look at sustainable development – consumption and production – from a cyclical perspective. Ultimately, developing and implementing multi-stakeholder policies for a CE should help us achieve sustainability, targeting all aspects of our everyday lifestyles.

Nowhere is this more true, for example, than in the nexus between food, energy, water and waste - four key resources that help us define and better understand much of our daily lifestyles and consequent environmental, social and economic problems that they generate. These four issues are prime examples of problems the will help us in operationalizing a "circular" economy *(See Figure 2)*.

Cities and towns – human settlements in general – form the perfect laboratory for us to understand many of the consumption and production patterns that eventually result in the myriad of global environmental problems we face. Central to facilitating these systems are the economic management systems of food, energy, water and waste - each dependent on and influencing the others.

Besides the inherent interconnectedness between themselves, the four issues form the key starting points for a city or villagve's contribution to the global environmental problems that we are facing today - directly and indirectly: Climate change, biodiversity, desertification, et. al

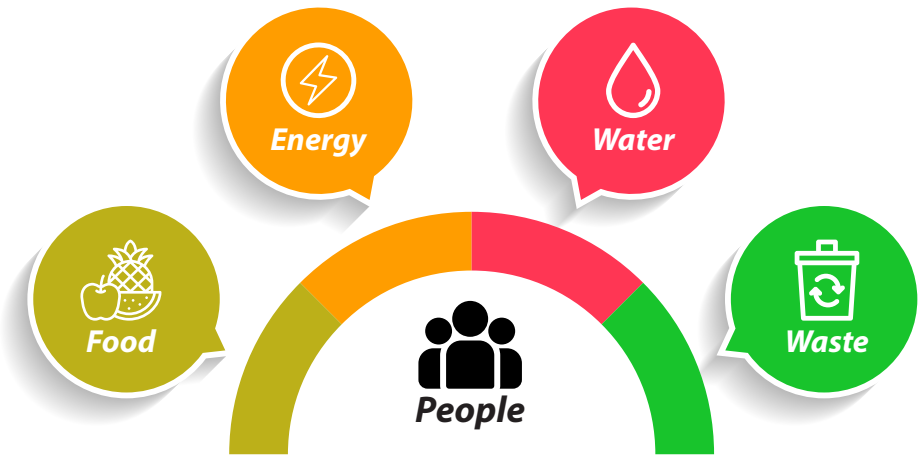


Figure 2: The FEWW Nexus

2.1 Food

Food and agricultural systems requires considerable amounts of water and energy during its production, transportation and storage, before it is consumed in an urban area. However, even before the food has reached a plate, 50% of the food will have been wasted or spoiled (and creating additional problems in the form of wastes, GHG emissions and pollution).

According to the Food and Agriculture Organization

of United Nations in 2018[3], it was estimated that about 1.5 billion tonnes of global food was wasted or lost, which accounted for approximately one third of total food production.

Wasting food means wasting water and energy, since producing, processing and consuming of food contribute to about 70% of total global water withdrawn and 30% global energy consumed.

The CE components of food focusses on two aspects – food security, i.e. ensuring reliable access to a sufficient quantity of affordable, nutritious food; and food loss, i.e. food that is wasted during its both production and consumption cycles, including food production, processing transportation, sales and preparation stages.

Current estimates of food loss/food waste point to almost 50% of all food prepared worldwide being unconsumed and resulting in significant resources, including energy, water, land, being waste – besides the food itself creating further waste that needs energy to dispose, and methane and CO2 emissions to contend with.

Food policies in a circular economy need to focused on ensuring the security of food production and consumption systems, including reducing food waste. This would call for a revamped understanding of the sustainability dimensions of the food cycle.

Revamping the food cycle - agriculture production systems, distribution storage and sales ["farm-to-plate" startegies] lies at the core of improving food security. A circular economy would contribute to food security and reduction of food loss, by –

CE Policy focus for Food: *Ensuring the security of food production and consumption systems, including food waste - Sustainability dimensions of the food cycle.*

- Developing food production and food loss assessment methodologies and tools
- Developing tools to measure and reduce food loss along every stage of the food cycle value chain, from farmer to consumrer
- Using innvoative smart technologies for agricultural production and procesing, including eco-labelling and tracking
- Improved food handling, packaging and logistics

[3] See FAO'ss website at http://www.fao.org/

2.2 Energy

Energy production and consumption has been shown to have a key influence on CO2 and GHG emissions, that has resulted in global climate change. Within the perspective of the FEWW nexus, for example, much energy is consumed in managing water supply systems, and also in waste incineration installations.

Sustainable energy policies in a circular economy will have to focus on three objectives:

- Sustainability -- how much and at what rate is energy consumed, and its effect on long term sustainability; the quality and quantity of available alternative/ renewable forms of energy; and the effect of existing energy use on the global environment as a whole.
- Efficiency -- the technology, planning and management of energy systems that will facilitate efficient use of energy for human activity (including its non-use!).
- Equity -- the appropriate financial mechanism for research, development and use of finite and alternative energy forms, and their equitable distribution for all humankind.

In practical terms, energy policies need to incorporate the entire continuum of issues:

of production, use and discharge of energy. Therefore, operating a circular economy that conserves energy requires us to look at three aspects, (1) how we produce energy, i.e. increasing use of renewable sources of energy, (2) how we use energy – i.e. using less energy and more efficiently for maximum output, and (3) how we discharge energy, i.e. reducing CO2 and GHG emissions and air pollution from energy use.

The energy policies that will help us move towards a circular economy needs to include, for example, (a) exploring and bringing to the market, alternative energy sources, (b) linking energy more integrally with global environmental issues (for example climate change or global warming), (c) co-relating environmental management efficiency with energy efficiency and (d) changes in lifestyles and increase in community involvement that will help achieve energy efficiency..

CE Policy focus for Energy: *Striving for efficiency in energy production, distribution and consumption: Shift to renewable energy sources*

2.3 Water

In many countries, water shortages stem from inefficient use, degradation of the available water by pollution and the unsustainable use of underground water in aquifers, the UN says. For example, 40 to 60 per cent of water used by utilities is lost to leakage, theft and poor accounting.

How bad is the water crisis? Every 8 seconds, a child dies from a water-related disease. About 50 percent of people in developing countries suffer from one or more water-related diseases and 50percent of people on earth lack adequate sanitation. Not only is the toll a human tragedy, but it means these people are less able to carry on productive lives, and this undermines social and economic development.

The complexities of a water supply and wastewater system called for an integrated and holistic approach that underpins coordinated, responsive, and sustainable water resource management. Such an approach integrates water sources, water- use sectors, water services, and water management levels at the household, community, and city.

An integrated water management system looks at water as a resource, that has to be properly collected, treated, supplied, used, and the waste water rendered harmless before being

released back into nature – principles that closely resemble those of a circular economy itself. Instituting and operationalizing a circular economy not only requires the prudent use of water at every stage stage of the production and consumption processes, but also its efficient collection, reuse, recycling and treatment.

From the FEWW Nexus perspective, integrated water policies in a circular economy is focused on prudent resource management. Water and waste/gray water are

CE Policy focus for Water: *Focusing on savings in water use, reuse/recycle, and wastewater treatment:* ***Use less. Use it again.***

critical inputs for food production and consumption, and also require considerable energy in their collection and treatment before consumption, and in filtering waste water.

2.4 Waste

A rising quality of life, and high rates of resource consumption patterns have had a unintended and negative impact on the environment - generation of wastes far beyond the handling capacities of local governments and agencies. Local governments, who are primarily responsible for waste management, are grappling with the problems of high volumes of waste, the costs involved, the disposal technologies and methodologies, and the impact of wastes on the local and global environment.

But these problems have also provided a window of opportunity for cities to find solutions - involving the community and the private sector; involving innovative technologies and disposal methods; and involving behaviour changes and awareness raising.

There is a clear need for the current approach of waste disposal that is focused on municipalities and uses high energy/high technology, to move more towards waste processing and waste recycling (that involves public-private partnerships, aiming for eventual waste minimization - driven at the community level, and using low energy/low technology resources. Some of the defining criteria for future waste minimization programmes will include deeper community participation, understanding economic benefits/ recovery of waste, focusing on life cycles (rather than end-of-pipe solutions), decentralized administration of waste, minimizing environmental impacts, and reconciling investment costs with long-term goals.

Much of these issues are epitomized by the 3R approach. The 3R approach, focusing on reduce, reuse, and recycle, essentially aims to set up a sound material cycle society within the concept of a life-cycle economy, where consumption of natural resources is minimized and the environmental load is reduced, as much as possible. While '3Rs' stand for reduce, reuse and recycle, the concept itself goes beyond just better waste management and calls for the

building of an economy based on the life-cycle approach, covering both sustainable production and sustainable consumption.

CE Policy focus for Waste: *Promoting minimization in waste generation and highlighting the 3Rs: From* ***'waste disposal'*** *to* ***'resource efficiency'***

Thus, at its core, the key to managing waste is to stop callng it "waste" and to move towards better resource efficiency. Once again, a circular economy approach that looks at the life cycle of products and services that we use, helps us guide the way. Every stage of a product or service invariably produced wastes - how can these wastes first of all be minimized, or reused/ recycled?

From the FEWW nexus perspective, waste not only has negative impacts on the environment in terms of resource inefficiency and pollution/emissions air, water and land, but it also needs considerable energy in its processing and recycling.

3. The GET Matrix for Action

CE policy objectives, especially the FEWW issues outlined above, still largely concentrate on the output side of resource flows (i.e. waste, emissions, and pollution) while the input side is either completely overlooked or addressed through voluntary targets, scattered across policies

Transforming the CE concept to a working set of policies at the local level requires a deeper understanding of the following three "policy patterns" [Srinivas, 2018]

1. The Governance Pattern, covering the global-national-local levels. What kinds of CE policies and strategies will be needed at the global, national (and provincial) and local levels?
2. The Stakeholder Pattern, covering governments-private sector-civil society entities. What kinds of CE policies will have to be developed and implemented by/for governments (national, provincial and local), private sector entities (including business groups, industry associations and chambers of commerce), and civil society entities (such as NGOs, universities, research institutions etc.)
3. The Actions Pattern, covering governance-education-technology issues. What kinds of CE policies will have to be developed for governance (laws, rules and regulations), education (including skills development. awareness raising, and capacity building, and technology.

The three policy patterns are explained in detail below:

3.1 The Global-National-Local pattern

How would CE policies change at the global, national and local levels?

Priorities change as we move from the global level to national and local levels. CE policies related to, for example, the risk of climate change at the global level, changes to policies focused on reducing CO2 emissions at the national level, and to developing new technologies and products that emit less CO2 at the local level. This example shows that identifying and understanding the way CE policy priorities change at different levels is critical for meaningful implementation. It is this changing policy pattern from global to national to local levels, taking into account the changing priorities at each level that will help in the uptake of the CE concept locally, ultimately affecting and influencing consumer behavior and lifestyles.

This pattern is in fact cyclical – the starting point for global environmental problems is in fact individual lifestyles and consumption patterns at the local level. This influences household impacts on the environment, which in turn affects the environmental quality at the community level. Longer term impacts of consumption on the environment, including wastes, emissions and pollution can be found at the city and national levels, eventually leading to changes in the climate at the global level.

Conversely, in the reverse direction, CE policies will also have to change depending on which level they are being discussed and implemented. For example, "Circular Economy policies" have little relevance at the individual level, unless and until they target the priority at the individual level – which is lifestyles and consumption patterns.

The key lesson learnt from this policy pattern is the need for developing appropriate policies at the appropriate level. Such policies would respect the stakeholders operating at that level, and their specific priorities, which is key to effective implementation of environmental policies.

Figure 3: The Individual to Global Impacts on the Environment

3.2 The Governments-Private sector-Civil Society pattern

How would CE policies change for different stakeholders such as governments, businesses, industry groups, NGOs, universities, community groups etc.?

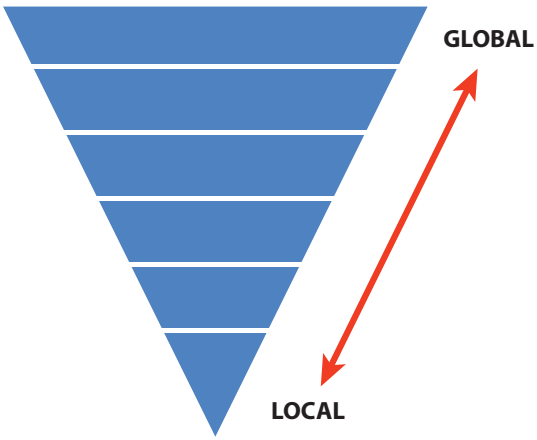
Right from the beginning of the formulation of the concept of sustainable development, the involvement of all stakeholders has been repeatedly emphasized both for the formulation of CE policies themselves as well as in their implementation. These points to the second policy pattern, of understanding CE policies from the perspective of the different stakeholders involved.

Sustainability problems are complex and are caused by different factors and have different short-term and long-term impacts. This requires the involvement of different stakeholders working at different levels of governance, depending on their skills/knowledge and the resources that they can bring to implementing CE policies.

The three key groups of stakeholders that are frequently mentioned in policy implementation are (a) governments, including national, provincial and local governments, government agencies, public utilities etc., (b) private sector entities, including industry associations, business groups, chambers of commerce etc. and (c) civil society, including NGOs, citizens groups, consumer groups, universities, research institutions etc.

Depending on the level at which the policies are being developed, the stakeholders and the role they play also changes. While global sustainability policies are the purview of the work of the UN and the national governments that it represents, UN and national government organizations can also facilitate actions at the local level through training, awareness raising funding and supporting citizens/ consumer groups and NGOs at the local level. The resources that these groups have access to, and the roles that play is also specific and unique to that level and locality. These and other issues such as disparity caused by class, age, gender, ethnicities, locations etc. will have to be taken into consideration when developing and implementing CE policies.

The key lesson learnt from this policy pattern is the need to involve the appropriate stakeholders at the appropriate level of governance, and respecting them for the resources that they possess and the role that they will play in implementing CE policies.



UN Agencies, International Conventions,

Multi-lateral Agreements

Regional Networks and associations

Donor Agencies and Multilateral institutions

National and local Governments

Private sector-business and industry
Universities and Research Institutions
Professional associations Financial Institutions

NGOs/NPOs and Community Groups

Figure 4: Changing Governance Levels and Stakeholders

3.3 The Governance-Education-Technology pattern

How would CE policies change to cover the issues of governance, education and technology systems?

The third policy pattern that complements the previous two patterns focusses on the key content of any effective environmental policy – governance, education and technology (GET). In order to develop effective solutions for any sustainability problem, whether local or global, there are three key ingredients that are necessary to be integrated: (a) environmental governance systems, particularly laws, regulations and rules, (b) education systems, and (c) technology systems. Each of the three GET systems is critical in providing the right context for the successful implementation of a policy.

The key lesson learnt with this policy pattern is the need for a comprehensive package of solutions that constitute CE policy, which brings together laws and regulations, the education and awareness that enables their uptake, and the technological solutions that will facilitate implementation.

Governance systems	Laws, legislation, rules, regulations, including monitoring and evaluation of the CE that supports the laws as well as protecting human rights and ensuring fair distribution on benefits and burden..
Education systems	Awareness raising, information campaigns, advocacy, workshops seminars, publications, manuals, public dialogue, school textbook reform etc.
Technology systems	Technology development, skills management, including skills and capacity building for the use of technologies

Figure 5: The GET Systems

We can bring the three policy patterns outlined above together in the form of a matrix. Creating such a GET matrix also helps in understanding the different interlinkages between sthe three patterns. The Global-National-Local pattern forms the columns of the matrix, the Governments-Business-Civil Society pattern forms the rows of the matrix and each cell highlights the Governance-Education-Technology pattern.

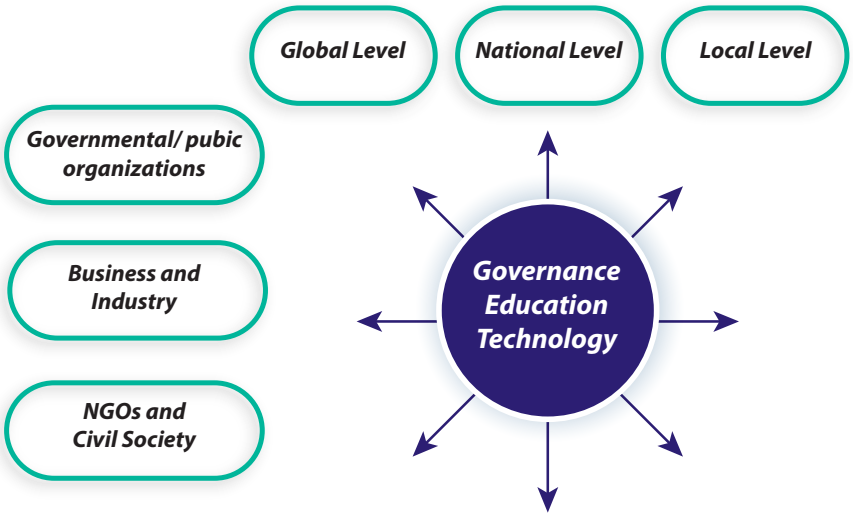


Figure 6: The GET Matrix

The matrix enables us to understand and coordinate the different kinds of actions needed at each level and by each stakeholder group, essentially answering the question – Who has to do what at which level? Each cell of the GET matrix will therefore outline policies that will have to be developed for governance (laws, rules and regulations), education (including skills development. awareness raising, and capacity building, and technology (including its development and deployment).

4. Conclusions: Do more with less

With the promulgation of the Sustainable Development Goals (SDGs) in 2015, priorities of governments and major groups have shifted to ensuring meeting the targets under the 17 global goals. Of particular relevance for the shift towards a circular economy are Goal #8 on Decent Work and Economic Growth, Goal #9 on Industry Innovation and Infrastructure Goal #11 on Sustainable Cities and Goal #12 on Responsible Consumption and Production (see Appendix 1 for a detailed explanation).

To achieve these and other goals/targets, we need new models of economic development, that not only focus on economic growth and profit, but also a broader approach towards social equity and particularly environmental preservation. This requires us to transition to a more equitable and sustainable economy based on "circular" thinking that uses the cyclical processes in nature itself as a model to develop and "grow" the economy.

We as humans are dependent on natural systems and its resources for survival. A transition to a circular economy will help us apply the principles of resource efficiency to boost social innovation and environmental sustainability. The GET matrix enables us to lay out the priorities and actions that will have to be implemented on food, energy, water and waste systems - in making them circular, in ensuring that resources are used efficiently and minimum wastes, emissions and pollution are generated.

We need to remember that that the CE concept is not new – it is in fact an amalgamation that brings together a number of different business and development strategies, including the 3R model. *It is not just about the economy* – it brings economic, social and environmental concepts together, the very essence of sustainable development. It is *not enough* – we need a more integrated and cohesive approach to global development.

A circular economy helps us close the loop for materials, resources, and energy that make up the goods, products and services we use every day. It helps us do more with less!

References:

Fernandes, Pedro (2020) "Circular Economy As A Way Of Increasing Efficiency In Organizations" The Porto Protocol. Retrived from https:// www.portoprotocol.com/circular- economy-as-a-way-of-increasing-efficiency-in-organizations/ on 10 December 2020.

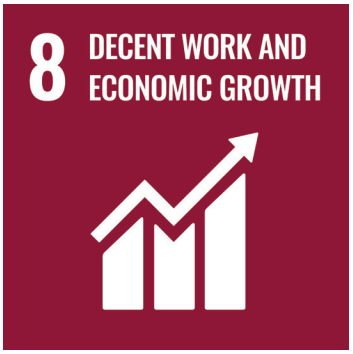
Geissdoerfer, M., Pieroni, M.P., Pigosso, D.C. and Soufani, K. "Circular business models: A review" (PDF). Journal of Cleaner Production. 277: 123741.

PBL (2019) "Opportunities for a circular economy" The Hague: Netherlands Environmental Assessment Agency

Srinivas, Hari "The Sustainable Development Goals: Environmental Policy Patterns for Local Action"Journal of Environmental Policy and Administration, Vol. 12, 2018, Pp. 123-148

APPENDIX

Appendix 1: SDGs and the Circular Economy



Goal

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Link to Circular Economy Concept

Roughly half the world's population still lives on the equivalent of about US$2 a day. And in too many places, having a job doesn't guarantee the ability to escape from poverty. This slow and uneven progress requires us to rethink and retool our economic and social policies aimed at eradicating poverty. A circular economy increases the available resources for production, and reduces the burden that these production systems on nature (simultaneously reducing the wastes, emissions and pollution generated)

Goal

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Link to Circular Economy Concept

Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries. It has long been recognized that growth in productivity and incomes, and improvements in health and education outcomes require investment in infrastructure. It will be a "circular"way of thinking that will also ensure that the above issues will contribute to sustainability.

Goal

Make cities and human settlements inclusive, safe, resilient and sustainable

Link to Circular Economy Concept

The share of urban populations living in cities has risen exponentially, along with the quality of life/lifestyles inherently different from those in rural areas. This also means that (1) resources consumed and (2) the wastes, emissions and pollution generated are also substanially high. A circular eonomy helps in adressing these issues, using cities and urban areas as a "laboratory" to tackle the global problems we are facing today.

Goal

Ensure sustainable consumption and production patterns

Link to Circular Economy Concept

Sustainable consumption and production is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. Its implementation helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty. These issues lie at the core of the circular economy concept - we need to change our consumption and production systems to sustain it into the future - "use less, use it again"

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