The Global Political Economy: Principled and Shared Decision-making Policy Dynamics for Sustainable Development Action with SENSE

Illustration- Plastics Sustainability Transition

Sai Dharani Kamireddy
Independent Researcher
Corresponding author: sai.dharanik@gmail.com

© Authour(s)
OIDA International Journal of Sustainable Development, Ontario International Development Agency, Canada.
ISSN 1923-6654 (print) ISSN 1923-6662 (online) www.oidaijsd.com
Also available at http://www.ssrn.com/link/OIDA-Intl-Journal-Sustainable-Dev.html

Abstract: Policy dynamics of the global political economy play the most significant role towards safeguarding our natural resources and effecting (sustainable) economies. With the aim of systemic changes in action-oriented *policy cycle* for *sustainability transitions*, the paper; In the light of decision-making: briefly reviews on the transition status and aspects of defined inherent human, principled and shared qualities that would lead to a safe, secure, resilient and happy planet. Proposes GPE-PSD Policy Cycle Action coherence approach with SENSE- Systemic Decision-Centric action methodology towards effecting "*Sustainable consumption and Production patterns*" as a universal implementer for nations towards sustainability transitions global policy.

Further, illustrates Global Policy for *Plastics (omnipresent) Sustainability Transitions;* a step-by-step systemic and systematic process on how the GPE-PSD policy-cycle implementers can work for sustainable outset, develop and implement coherent global policies with SENSE to address the *global challenges of sustainable development.*

Keywords: GPE-PSD Action-oriented Policy-cycle; Policy and Institutional Coherence/ SCP/SDG12/Sustainability Transitions; SDG17; SENSE; Six Sustainability Dimensions with 5Ps.

Introduction

The 'new normal' of world order in the twenty-first century is seen to be 'embedment of globalized markets in transnational social relations' [1]. Enlarges the scope of the global political economy and its political forces- citizens, societies, institutions, international organizations, multinational corporations along with the states in shaping the global economic interactions and political structures; their outcomes impacting the global economy as whole.

As a result, globally relevant risks and collective actions of different kinds such as common-pool resource problems [2] require deliberate forms of state actions to balance the social, environmental and economic pillars for smooth transition towards global sustainable economies. Laying the impetus on global policy which crucially factors in transcontinental, interregional flows and networks of activity and interaction by public and private actors [2] as needed for sustainable development.

The Transformational vision 2030 Agenda of the 17 SDGs [3] and their 169 integrated and indivisible targets is a promising challenge. Positioning the 2030 agenda as a template for global policy action for sustainability transitions. Focusing on SDG17- "Strengthen the means of implementation and revitalize the global partnership for sustainable development" [4] and SDG12- "Sustainable Consumption and Production Patterns" [5] as crucial driving forces; Potentially, can address the present *conflict-ridden world of wicked problems*: poverty, climate change, social and economic inequalities, unhealthy and unsafe living and political instability credited to past decades' neoliberal economic policies of wealth accumulation and concentration and unsustainable production and consumption [6]. An alarming example being; *Plastic waste dumps* found even in the most isolated places of our world, piercing organs of species, in human blood, tissues, killing us as slow death and burying the planet.

This paper seeks *sustainable development as global commons and sets for systemic changes* in SDG17.13-19 Global "Policy and institutional coherence" [4]. P*roposes principled, shared, collaborative approach for global embedment of SDG12"Sustainable modes of production and consumption patterns" (SCP) as a policy definitive*,the utmost and universal effector with *SENSE* [7]- A systemic decision-making process for nations to act on sustainability transitions [8] global policy cycle [9]; Agenda-setting, policy analysis and formulation, decision-making, implementation and evaluation for long-term, multi-dimensional and fundamental transformation of large socio-technical systems to shift towards more 'Sustainable modes of production and consumption' thereby achieving the vision 2030 agenda holistically. SDG12 is much more important as it underpins, acts as a lever and an ice-breaker for every other SDG from Zero Poverty to Peace and Justice [7]. Its objectives of resource and energy efficiency and sustainable infrastructure is one of the most cost effective and efficient ways to achieve economic development, reduce impacts on the environment and advance human wellbeing.

Sustainability Transitions Status: SDG12 and SDG17

After the adoption of the vision 2030, sustainability efforts were seen in;
- Multilevel and multidimensional reports of UN High Level Political Forum (HLPF) 2018[10] and 2019[11], UN Sustainable Development report 2019[12], Global civil society report 2018[6]and 2019[13].
Profoundly specified:

- Shrinking our material footprint as a global imperative.
- The need for *internationally established methodology* or standards focusing on improving resource efficiency, reducing waste and mainstreaming sustainability practices across all sectors of the economy with *coordinated global action.*
- To address the root causes of difficult challenges with *decision-making and policy changes* focusing equally on the three pillars of sustainable development and to 'systematically incorporate plans and policies through interventions that have potential multiplier effects for accelerated progress'[11].

- The One Planet network [14]:
An inter United Nations (UN) commitment of 20 agencies with over 700 public, private organizations supportedby the European Commission, Norway among others is a multi-stakeholder partnership mechanism that leads support and implementation of shift towards SCP by providing unified direction, tools and solutions for both developed and developing countries to generate collective impact in six sectors: Buildings and construction, Public Procurement, Tourism, Food & Beverage, Consumer Goods, Education. It is presently working on 5-year strategy 2018-2022 to implement the 10Year Framework of Programs on Sustainable Consumption and Production (10YFP) target 12.1 of the 2030 Agenda for sustainable development. With the strategy objectives:

1. Be an effective implementation mechanism of Goal 12 as affirmed by target 12.1;
2. Catalyse ambitious action by providing tools and solutions for SCP shift.
3. Lead the cohesive implementation SCP.
4. Demonstrate the benefits and impacts of SCP and its role in addressing key environmental and social challenges.

The One Planet Network is a promising initiative for SCP that helps leverage the best resources towards SCP implementation.

The sustainability efforts for SDG17.13- 17.19.1 "Partnership for the Goals - Policy and Institutional Coherence" after commitments to follow a holistic approach and broad target setting thereafter show non-collaboration and non-coordination, contributing to ineffective policies and action within and between nations.
Overall, most governments failed to turn SDGs into real policies, even worse are moving in the opposite directionas 'Un-Sustainable Development Goal' [6].

Noting that Sustainable development, SDG12, SDG17 are inherently cross-cutting and inextricably linked, *places the importance on Decision-making* as a means to achieve them and should be considered a '*fundamental legal principle*' [15] as at *'the very heart of every action lies a decision'* [16] that defines the present and its impact on the future.

Steering the decision-making pathway with Principled-Decision making for sustainability is the key for any intervention to be successful, be it the above mentioned One Planet Network SCP or/and for this paper's *sustainability transitions policy-cycle coherence aim;* Approached in *SENSE.*

SENSE

Systemic **E**nquiry, **N**orm for **S**ustainable **E**quity [7] *is a Systemic decision-making, implementation and evaluation (ex-ante and ex-post) Action framework and methodology* for sustainability transitions. Based on systems thinking, allows understanding of whole situation, breaks down the complexity of unsustainable situations and/or problems and/or concerns. Its basic aim is to understand, analyse, assess, map and *strategize the best practical decision/s or solution/s and zero-on the actions for sustainability transition.*

SENSE ➡ Informed decisions with Systemic Enquiry and Analysis/Assessment + Implementation of Sustainable Actions + Evaluation ➡ ***Sustainability transitions*** ➡ ***Sustainable Development***

- Scoped for SDG12 with 17 SDGs indicators as both the evaluation and/or scoping benchmark.
- Sets out with '*Sustainable Outset'* as the *prime criteria:*
- Vision being 'Sustainable Growth' with *six dimensions and 5Ps key principles* of sustainability; (People/Social, Planet/Ecology, Prosperity/Economic, Peace, Partnership/ Governance, Cultural/Ethical(time) as the *definitive for sustainability transitions and actions.*
- *Strategized in six phases*- Status-Quo, Sustainable Outset, Nature's Rhythm, Action Plan, Implementation and Evaluation.
- *Effected as Eight Processes*; Problem Identification, Ill- Effects, Positive Impact with Six Dimensions and 5Ps, Solution/s, Short Term (6 months), Long Term (6months- 2years), Organizational Support and Financials and SDG Mapping.

SENSE depicts as a *one-page action summary* for holistic actions to achieve SDGs as in Table 1 below.

SENSE (Systemic Enquiry, Norm for Sustainable Equity)

FRAMEWORK	STRATEGY	Theme: Subject of concern			Need: 3Ps	Vision: Sustainable Growth			
	Phases	Status-Quo		Sustainable Outset	Nature's Rhythm	Action Plan		Implementation	Evaluation
	PROCESS	1	2	3	4	5	6	7	8
		Problem Identification	Ill-Effects	Positive Impact	Solution/s	Short Term (6m)	Long Term (6m-2yrs)	Organizational Support	SDG Mapping
		Subject of concern; Status,Facts, Requirements.	Internal and external problems for subject of concern.	6 Dimensions/5Ps for sustainability transition.	Sustainable practices that can implement 6 dimensions/5Ps.	Changes in actions towards sustainable actions.	Sustainable actions as a norm.	Systems/ Stakeholder Identification Finances	Targets/ Indicators
METHODOLOGY		**Introduction** **Comparative analysis** of the best vs followed present scenario, practises. (Local focus) **Requirements** for the theme to be presented with output analysis for best and present practices. Finance being constant.	**People** Well-being insecurities. **Planet** Bad effects on climate and species. **Loss** Unexpected problems. Financial concerns internal/external influences.	**People/Social** Welfare and Justice. **Planet/Ecological** Enhancement and Sustenance of resources. **Prosperity/Economics** Economic growth. **Peace** Fosters inclusiveness. **Partnership/ Institutional/Governance** Whole-of Society. **Ethical**(Time)/**Cultural** Balance, Protection, enhancement of ecosystem and culture.	**Solution/s** **Value Proposition** Articulate/ Define solution/s	**Risk Diversification** -Remedial steps to counteract problems of the present practices with immediate effect. **Value Provision** -Immediate solutions for betterment towards 6 dimensions/5Ps	**Sound Practices** Towards a fully developed sustainable model for solution/s as per Nature's Rythmn phase.	List the concerned to work and team up with. **Financials** Budget Allocation Financial Projections (3 years as safety net)	List **SDGs** as per Sustainable outset impacts with **indicators**. Their present status for the concern. **Target** of the indicators presented as per SDGs.

Table 1: SENSE Methodology

Table 1; SENSE methodology represents for whole-of-the society (individuals, communities, corporations, institutions, states). Essentially, a *policy-making construct* with *systemic, Principled and Shared Decision-making* **(PSD)** process that clearly depicts for the problems, solutions, plan-of action for implementation and evaluation. *Provides vital information as/for interventions towards coherent and impactful global sustainability transitions policy-cycle decisions*.

PSD: Principled and Shared Decision-making pathway for global policy

Neoliberal economic policies accounted for financial excesses leading us to the recent 2008 financial crises and positioning us with the need for three planets to provide natural resources needed to sustain current lifestyles for the estimated population of 9.6bn by 2050 in the 21st Century [17]. Puts forth the missing and crucial aspects of humanitarian, planetary and social awareness and cohesion in decision-making- *the interconnectedness that charts the course of action for sustainability transitions global policy.*

It is essential, to reiterate that *humans are cognitive and rational beings with compassion being their innate qualities* where the actual selfish gene is of *altruism* and inherited. Connects with the *planet (Species and resources) as one; everyone as equals* along with sharing and responsibility as the common principles for decision-making towards secured living for generations.

In the context of global policy for sustainable development, Principled-Shared Decision making (PSD) is factoring the needs for people, planet and profit (3Ps) and sharing those aspects as a multilevel, integrated and participation approach for decision-making at all levels. As seen in SDG16.7- Promotion of peaceful and inclusive societies to "Ensure responsive, inclusive, participatory and representative decision-making at all levels", SDG 5.5 "Participation of women's, SDG10.6 "Voice of African, developing, least developing, land- locked developing, middle-income countries", small island states; towards informed policy-making where everyone being a user and a provider of valuable insights from the grass-roots individual to senior, national, global and decision-makers [18].

Constructing pathways to sustainable development is inevitably a normative struggle, rooted in political and moral choices [19]. Can be effected with *Global Political Economy (GPE) forces as a co-evolution process* [20].The result of the interplay of many unlike, particular processes where *transitions involving systems innovation* cannot be managed in a controlling sense but they *can be aimed and guided in an iterative, forward-looking, adaptive manner; using markets, institutions and hierarchy,* the three basic forms of coordination. A required transformative change needed in Decision-making for sustainability as adopted in SENSE with SDGs, data, technology, the six-dimensions and 5Ps systemic, holistic and PSD pathway for whole-of-society to be applied to the policy-cycle action coherence approach.

GPE-PSD Policy-cycle Action coherence approach- The Proposal

The 'Transformation of our World' as proclaimed in the title of the 2030 Agenda [3] has to happen simultaneously at all levels, from local action to global governance reforms, and by all social actors [6].

For it to reflect effectively within a short time, the nations need to deliberate with sustainability drivers or interdisciplinary knowledge support systems to be referred as the *GPE implementers* - Specific SDG focused local and global networks, think tanks, intergovernmental bodies/secretariats, NGOs/NPOs entailing citizen participation for policy integration and coherence between and in co-ordination with different sectors and economies.

Principally and as *Principled commitments* the *nations have to constitute SDG12 "Sustainable Consumption and Production patterns" (SCP)* along *with Principled and Shared decision- making (PSD) coherence as a universal policy definitive* for every sector at the national level in institutional arrangements of national governments and parliaments in all countries.

Once constituted, *Policy dynamics structure for SDG12 policy-cycle* from agenda setting to evaluation. It works on the principles of *integration* and *inclusion* in **multistep dual stage strategy** with **SENSE** as a coordinated and collaborative partnership approach with nations and GPE implementers.

The *first stage multistep* starts with every nation working for nation level SDG12 policy-cycle in partnership with local sustainability support and knowledge systems or local GPE implementers with SENSE methodology to be adopted by nations and GPE implementers individually and in-collaboration as a multistep process.

In the *second stage multistep,* the respective nation's share the concerns and needed changes for SDG12 policy cycle at the global level through information gained from SENSE with nations implementers- local and global knowledge support systems to work in coherence for global policy-cycle, a multistep process once again with SENSE; *Effected as Global Political Economy-Principled Shared Decision-making coherence (GPE-PSD),* presented below.

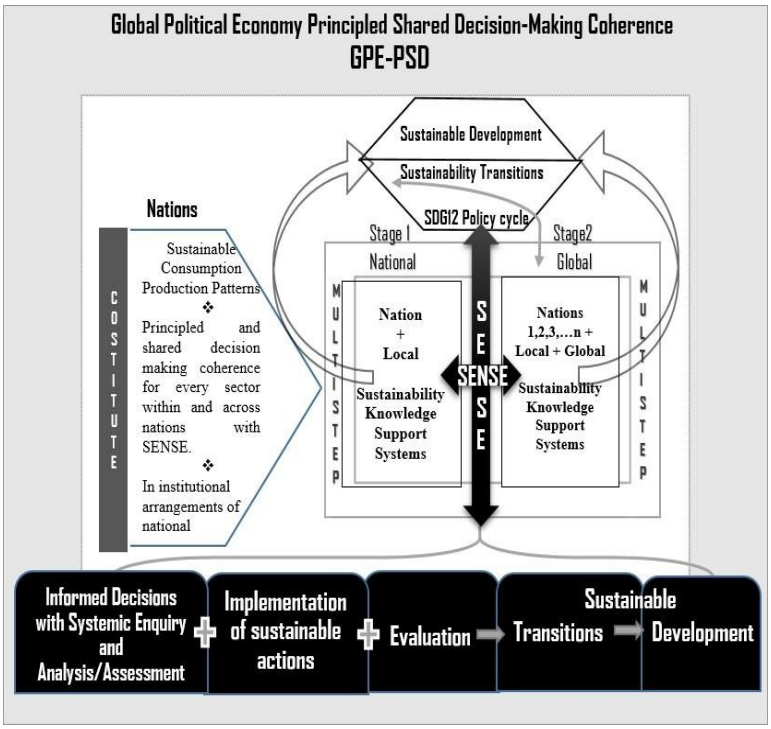


Fig: GPE-PSD Policy-cycle Action coherence approach

As depicted in the Fig above;

- Nations commit and constitute SCP along with PSD in institutional arrangements of national parliaments.
- Then, initiate the Stage one multistep Nation's co-ordination approach with local systems for National Level policy-making.
- Followed by sharing the results with stage two Global 1,2, 3, n number of nations GPE implementers for collaborative policy-making to achieve sustainability transitions policy-cycle coherence.
- SENSE being the common decision-making methodology to be implemented by nations and GPE implementers - local and global sustainability knowledge support systems to decide and effect on SDG12 policy at the national and global level towards sustainability transitions and sustainable development.

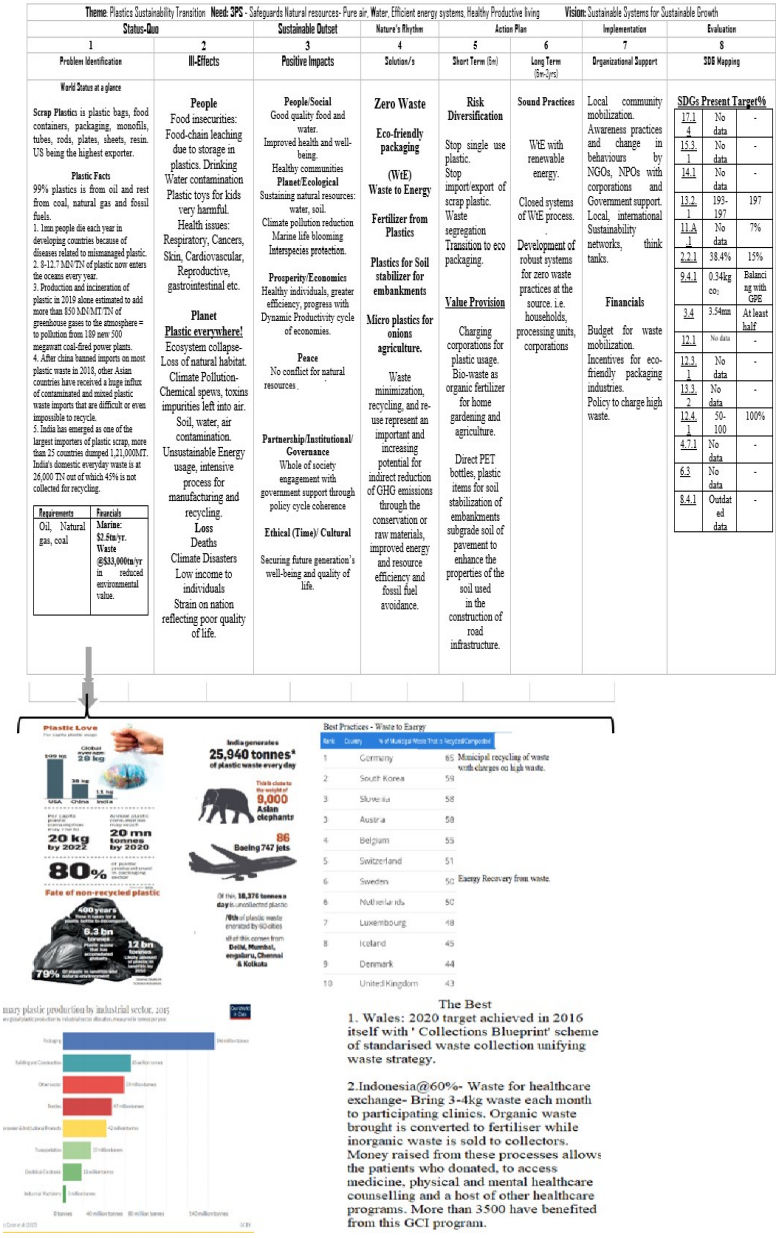
The different and shared perspectives gained from each of them is much needed for comprehending the dynamic nature of sustainability and towards robust action-oriented global policy-cycle decision-making.

SENSE GPE-PSD Plastics: Policy Cycle Action Coherence

Our planet is drowning in Plastics. Once at sea, sunlight, wind, and wave action breaks down plastic waste into macro/micro particles that have already endangered more than 700 species, continuing to pollute our oceans, wildlife and every corner of the globe from Mount Everest, the highest peak, to the Mariana Trench, the deepest trough threatening ecosystems, blocking digestive tracts causing death. [21]

This global problem needs the nations to adopt **GPE-PSD Policy Cycle Action Coherence Dual strategy approach with SENSE** for *Plastics SCP global policy-cycle* illustrated as **SENSE GPE-PSD Plastics** on how the nations, GPE implementers- local and global sustainability knowledge support systems work with SENSE.

SENSE GPE-PSD Plastics



Theme: Plastics Sustainability Transition **Need: 3PS** - Safeguards Natural resources- Pure air, Water; Efficient energy systems, Healthy Productive living **Vision:** Sustainable Systems for Sustainable Growth

Status-Quo		Sustainable Outset	Nature's Rhythm	Action Plan		Implementation	Evaluation
1	2	3	4	5	6	7	8
Problem Identification	Ill-Effects	Positive Impacts	Solution/s	Short Term (6m)	Long Term (6m-2yrs)	Organizational Support	SDG Mapping

World Status at a glance

Scrap Plastics is plastic bags, food containers, packaging, monofils, tubes, rods, plates, sheets, resin. US being the highest exporter.

Plastic Facts

99% plastics is from oil and rest from coal, natural gas and fossil fuels.

1. 1mn people die each year in developing countries because of diseases related to mismanaged plastic.
2. 9-12.7 MN/TN of plastic now enters the oceans every year.
3. Production and incineration of plastic in 2019 alone estimated to add more than 850 MN MT/TN of greenhouse gases to the atmosphere = to pollution from 189 new 500 megawatt coal-fired power plants.
4. After china banned imports on most plastic waste in 2018, other Asian countries have received a huge influx of contaminated and mixed plastic waste imports that are difficult or even impossible to recycle.
5. India has emerged as one of the largest importers of plastic scrap, more than 25 countries dumped 1,21,000MT. India's domestic everyday waste is at 26,000 TN out of which 43% is not collected for recycling.

Requirements	Financials
Oil, Natural gas, coal	**Marine:** $2.5tn/yr. **Waste** @$33,000tn/yr in reduced environmental value.

People
Food insecurities:
Food-chain leaching due to storage in plastics. Drinking Water contamination
Plastic toys for kids very harmful.
Health issues: Respiratory, Cancers, Skin, Cardiovascular, Reproductive, gastrointestinal etc.

Planet
Plastic everywhere!
Ecosystem collapse-Loss of natural habitat.
Climate Pollution-Chemical spews, toxins impurities left into air.
Soil, water, air contamination.
Unsustainable Energy usage, intensive process for manufacturing and recycling.
Loss
Deaths
Climate Disasters
Low income to individuals
Strain on nation reflecting poor quality of life.

People/Social
Good quality food and water.
Improved health and well-being.
Healthy communities
Planet/Ecological
Sustaining natural resources: water, soil.
Climate pollution reduction
Marine life blooming
Interspecies protection.

Prosperity/Economics
Healthy individuals, greater efficiency, progress with Dynamic Productivity cycle of economies.

Peace
No conflict for natural resources

Partnership/Institutional/ Governance
Whole of society engagement with government support through policy cycle coherence

Ethical (Time)/ Cultural
Securing future generation's well-being and quality of life.

Zero Waste

Eco-friendly packaging

(WtE) Waste to Energy

Fertilizer from Plastics

Plastics for Soil stabilizer for embankments

Micro plastics for onions agriculture.

Waste minimization, recycling, and re-use represent an important and increasing potential for indirect reduction of GHG emissions through the conservation or raw materials, improved energy and resource efficiency and fossil fuel avoidance.

Risk Diversification

Stop single use plastic.
Stop import/export of scrap plastic.
Waste segregation
Transition to eco packaging.

Value Provision

Charging corporations for plastic usage.
Bio-waste as organic fertilizer for home gardening and agriculture.

Direct PET bottles, plastic items for soil stabilization of embankments subgrade soil of pavement to enhance the properties of the soil used in the construction of road infrastructure.

Sound Practices

WtE with renewable energy.

Closed systems of WtE process.

Development of robust systems for zero waste practices at the source. i.e. households, processing units, corporations

Local community mobilization.
Awareness practices and change in behaviours by NGOs, NPOs with corporations and Government support.
Local, international Sustainability networks, think tanks.

Financials

Budget for waste mobilization.
Incentives for eco-friendly packaging industries.
Policy to charge high waste.

SDGs	Present	Target%
17.1 4	No data	-
15.3. 1	No data	-
14.1	No data	-
13.2. 1	193-197	197
11.A 1	No data	7%
2.2.1	38.4%	15%
9.4.1	0.34kg CO_2	Balancing with GPE
3.4	3.54mn	At least half
12.1	No data	-
12.3. 1	No data	-
13.3. 2	No data	-
12.4. 1	50-100	100%
4.7.1	No data	-
6.3	No data	-
8.4.1	Outdated data	-

Table 2: SENSE GPE-PSD Plastics

SENSE GPE-PSD Plastics, Table 2 is explained below along with instructions for nations and GPE implementerson the process of using SENSE methodology for GPE-PSD policy-cycle coherence towards setting global sustainability transition policies for Plastics and different global problems.

Plastics Sustainability transition theme checks for the need of 3Ps as mentioned in Table 2 - Safeguarding natural resources for pure air, water, efficient energy systems for planet, healthy and productive living for people and economic growth with the vision of sustainable systems for sustainable growth.

Nations and GPE implementers should note that the theme, which could be one or more of the 17SDGs, its 169 targets and 232 indicators or any specific concern at the local, national and international level needs to be checkedfor 3Ps and its vision for sustainable growth, if not then the theme in contention isn't an option that seeks sustainability and is to be reconsidered. This allows to steer sustainability transitions right from the start.

Examples: War as a solution to curtail or gain something is a loss for 3Ps and doesn't tick to move ahead but negotiation does. Increasing production or usage of pesticides doesn't but natural fertilizers for soil fertility and climate protection does. Soft-drinks for taste does not but tasty non-sugary fortified drinks for health and sustainable consumption do. Financial products only for consumption don't but for increasing consumption and production cycle that empowers people towards sustainable growth will tick for 3Ps [7]. Once this is set, we proceed to the SENSE methodology as we are for *SENSE GPE-PSD Plastics.*

The first process; **Problem Identification** reflects the world status for plastics that scrap plastics is most widely used, made from non-renewable fossil fuels, coal, natural gas and oil and presents different and best practices of recycling being used now for tackling the theme. It could be one of the solutions for plastic reuse but it also shows that recycling has created another disastrous problem mostly by developed countries. Being highest consumers of plastics for their solution of plastic waste management, seen to be dumping it upon developing countries. Highest importers being India after China has banned in 2018, who are struggling to manage their own plastic consumption, production and waste in the first place as clearly depicted with images/tables/data [22] in Table 2. Financials being crucial for any issue, stands at $2.5tn/yr and $33,000 per ton in reduced environmental value choking our planet as a whole.

The second Process; **Ill-Effects** shows the problems being faced by today's practices of plastics usage and pollution right from water contamination to food leaching issues, high, unsustainable, intensive energy practices, health concerns with choking and deaths. Impeding development by adversely impacting the societal and natural ecosystems. It can be clearly seen from the **Ill-effects** and **Problem Identification**, two processes of the first phase; **Status- Quo** that Plastics is a global man-made hazard and its high time the nations deliberate to shift policies towards sustainable options with GPE-PSD approach. All the GPE implementers: local and global sustainability drivers and knowledge support systems and nations will have to first uncover the different socio-technical dimensions of internal, external, direct and indirect factors that are at play for the present problems by first hand experiences and participatory processes of primary and secondary data collection. It is crucial to have every sector's and nation's data enlisted and assessed for plastic production, consumption, wastage, in oceans and recycling in the dual stage strategy of the *GPE- PSD Policy-cycle Action coherence approach* individually and by collating to analyse the different linkages and know where the actual problem lies so as to systemically counter them. This clarity will ensure in effective policies that need to be initiated accordingly, towards SCP.

The third Process; **Positive Impacts** of the second phase **Sustainable Outset** enlists for the required positive impacts as safe, secure, healthy and productive communities with solutions for blooming, safeguarding and enhancement of natural resources and species for the six sustainability dimensions with 5Ps- the definitive for sustainability transitions.
Nations and GPE implementers need to have a global outlook with local impact as the key, through participatory approaches for determining the required positive impacts. These define the policy solutions. Example: If plastic packaging industries are causing pollution in a particular area, policies need to be focused around solutions for closed-loop practices of production.

With the present best practices as per data in the Problem Identification phase also creating burdens of waste management, inefficient recycling processes adding to the present non-renewability and pollution factors of plastics unsustainable production and consumption patterns; The fourth Process**; Solution/s** of the **Nature's Rhythm**/3rd Phase seeks '*Zero waste'* to eliminate plastic and reduce overall waste at the source as the best (*sustainable*) solution for a sustainable planet counteracting all the negative effects of financial, social and planetary burdens as seen in the ill-effects process.
'Zero-waste' being the ultimate goal and in-order for it to be achieved, every nation according to the nation's needs should make sure to first set SCP policies for solutions as listed in Table 2; recycling, transition to eco-friendly options, waste management as a step-by-step process towards achieving zero waste.
It is a crucial process for the nations, GPE implementers where all the perspectives, areas/sectors/industries causing ill-effects, best practices from all over the globe need to analysed and adapted as per the local necessitiesin the first stage of the GPE-PSD dual stage strategy and collaborate on policy coherence in the second stage forpolicy decisions.
Example: The highest consumer countries of plastics need to make sure that plastic consumption and productionis reduced with policies ranging from charging high waste contributors be it industry/sector/individual, limiting plastic production for industries as identified in problem identification phase to efficient closed-loop, waste to energy recycling, reuse and encouraging alternative eco-friendly packaging practices.
This positively effects on other nations as well, who export to these countries towards enabling SCP plastics policy for the concerned industries to start with.

The fifth and sixth process; **short- and long-term goals** of the **Action-Plan**/4th Phase clearly lists them as tasks that need to be achieved accordingly towards zero waste from efficient production to recycling to reuse to eco-friendly options to minimizing waste as whole.
Nations and GPE implementers coordination for setting policies in phases is required for effective implementation as well. In case of one of the short-term solutions as presented in Table 2 where Plastic can be used as a Soil stabilizer [23] for embankments. The developed countries could use it for local road infrastructure or work with other nations who need it for their purposes as a bi/multilateral policy efficiently instead of having it recycled inefficiently. In another case, plastics can be used for SDG 15.3.1- "The proportion of land that is degraded over total land area" [24] to enhance the soil. Identifying such policy coherence with risk diversification and value proposition in short term and sound practices for long term is key for global sustainability transitions action.

The seventh process; **Organizational support** of the **Implementation**/fifth phase enlisting specific **stakeholder support** for implementation of the action- plan seeks out as the whole-of society approach.
Example: The local NGOs can create awareness at the individual level on plastic usage reduction and disposal and share data with the other GPE implementers knowledge support systems who in turn will analyse and share the behavioural patterns with the nations that would lead to policy changes and development towards plastics sustainability transitions.
As per the solutions goal of '*Zero Waste*', budget (**Financials**) needs to be allocated for setting up of infrastructure and encouraging waste management, eco-friendly industries with incentives. This not only sets the right policies but also effects policy implementation. The GPE implementers especially nations need to make sure to support each other with exchange of technologies, knowledge and resources.

The eight processes**; SDG mapping [25]** of the sixth phase/**Evaluation** needs to map for SDGs 3,4,6,8,9,11,12,13,14,15,17 at the global level with few presented in Table 2 for plastics sustainability transitionand policy coherence.
Every nation and GPE implementers have to check for local/national/global present status, target and the gap or goal to achieve the target it needs to reach and then collate the data for policy coherence.
Examples: SDG13.3.2 "Capacity-building for climate change, number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" [26] has no data at the national level. The nations should first mark the present as no data, define its target and in collaboration with the second stage Global of the GPE-PSD approach needs to make sure to work on policies for achieving it. Same goes for SDG12.1 "number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies" [26].
For SDG12.4.1 "number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals has variations for different protocol commitments ranging from 50-100, 100 being the highest [26]. SDG13.2.1 has 192-197 countries "communicated the establishment or operationalization of an integrated plan to foster for climate resilience and low greenhouse gas emissions development" [26]. For both the SDGs; nations and GPE implementers need to check for the performance indicators like implementation ratio, positive effects of the implementation in order to be able to define policies for the next level of sustainable implementation.
For SDG 9.4.1 "CO_2 emissions per unit of value added" [26]. The least developed countries have low rates due to non-development and the most developed have highest rates. Nations need to determine and also factor in the plastics pollution contribution ratio to balance it coherently with SCP policy cycle.

Evaluation of SENSE Action-Plan or any other concern to be solved with SENSE will have to take place at least every 6 months to gauge the short-term achievements, for improved performance and future goal setting for policy decisions and implementation. In case, the policies implemented is not as effective and/or needs to be changed or updated due to either internal/external dynamic factors; nations and GPE implementers need to go through the SENSE iteration with the old and new inputs for thorough analysis once again to develop a robust policy cycle.

SENSE GPE-PSD Plastics has followed the step-by-step process of left to right of the three SENSE approaches [7] for GPE-PSD policy cycle coherence starting with problem-identification.
SENSE GPE-PSD Plastics can also be approached with SENSE SDG specific approach where nations and GPE implementers can choose a specific SDG starting from SDG mapping eighth process/ Evaluation phase as the initiator for global policy coherence and then follow up from Process 1 to 7 followed by the 8th for evaluation after the first six months. Third approach is goal-oriented, where problem and sustainable outset (Processes 1-3) are identified and mapped with the SDGs goals (Process 8) and then the solutions are zeroed on followed by the implementation (Processes 4-7). Example: SDG 3.4.1 "Reduce mortality from non-communicable diseases and promote mental health" [25] sees respiratory issues in top 3 mortality rates.
Nations and GPE implementers need to check for the effect of plastics as the contributors or check for other highest contributors to this hazard and follow up in coherence by understanding the problem to deciding for and implementing either for Plastics or other concerns global policy-cycle for this indicator.

Evidently, SENSE GPE-PSD Plastics 'Zero Waste' solution holistically addresses for six dimensions and 5Ps for sustainability and shows the path for nations to use SENSE for *GPE- PSD Policy- cycle Action coherence approach* within and across nations for global sustainability-transitions policy-making.

Conclusion

The current problems of growing inequalities and unsustainable production and consumption patterns are deeply connected with power hierarchies, institutions, culture and politics [6].
Today, it is foremost for the whole-of-society especially the national powers to effect, being the utmost decision-maker of global policy: for the '*larger good' being principle 1*; '*We are one* (Planet species and resources)' as *principle 2;* 'Connected' as *principle 3* and only when we work in tandem with the '*Nature's Rhythm'* as *principle 4* in a *shared approach* can we lead and leave a secured life for all and the planet as a whole.

Onus lies on the *nations to play a defining role and deliberate* on changing the present power and financial hierarchical scenarios towards social, environmental cohesion and interconnectedness as priorities in global policy decisions towards a safe, secure and happy world for our sustainable planet.
Essentially, the GPE- PSD Plastics illustration started out for plastics coherent SCP policies, in the due process; waste management also another huge global problem was seen to be addressed simultaneously with the '*Sustainable Outset*' or the six dimensions with 5Ps needed positive impacts process of SENSE. It allowed to see the problem as a whole, covering all the aspects for sustainability equally and aided in informed decision- making towards deciding the holistic solution '*Zero Waste'*. Reflecting, that the Plastic illustration is linked to many other sustainability transitions global policies that can steer organic farming, food wastage reductions to address energy efficiencies, climate pollution, healthy lifestyles and many such positive changes for sustainable development.

Clearly, the proposed **GPE-PSD Policy Cycle Action Coherence Dual stage strategy approach with SENSE** decision-centric methodology of systemic and systematic process for SDG17.13-17.19.1 "Systemic changes in Policy and Institutional coherence "with SDG12 "Sustainable Consumption and Production patterns" can be a comprehensive guide; ***a universal effector for global policy cycle coherence*** *in transitioning whole-of-society towards* **sustainable equity.**

References

1. Walzebach, G. (2016,Dec 29). Global political economy. (2016). Retrieved from https://www.e-ir.info/2016/12/29/global-political-economy/
2. AALEP. What is global Policy. Global Policy Journal London School of Economics and Political Science Retrieved from https://www.aalep.eu/sites/default/files/What%20is%20Global%20Policy.pdf
3. Transforming Our World: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT. (2015). Retrieved from http://www.waynevisser.com/wp-content/uploads/2015/08/sdgs-text.pdf
4. Sustainable Development Goal 17. (2015). Retrieved from https://sustainabledevelopment.un.org/sdg17.
5. Sustainable Development Goal 12. (2015). Retrieved https://sustainabledevelopment.un.org/sdg12
6. Martens, J. (2018) Redefining policies for sustainable development. Global Policy Forum. Retrieved from https://www.2030spotlight.org/sites/default/files/spot2018/chaps/Spotlight_Innenteil_2018_redefining_policies_martens.pdf
7. Kamireddy, S. (2019). SENSE: Systemic Enquiry, Norm for Sustainable Equity. Proceedings *from 7th International Conference on Sustainable Development.*
8. Markard, J.&Raven,R.,& Truffer, B.(2012). Sustainability transitions: An emerging field of research and its prospects. Retrieved from http://www.transitionsnetwork.org/files/1.%20Markard%20et%20al.pdf

9. Cairney, P. (2013, Nov 11). Policy Concepts in 1000 Words: The Policy Cycle and its Stages [Web Log Post]. Retrieved from https://paulcairney.wordpress.com/2013/11/11/policy-concepts-in-1000-words-the-policy-cycle-and-its-stages/
10. One plan for One Planet 5-year strategy 2018-2022. (2018). Retrieved from https://www.oneplanetnetwork.org/resource/one-plan-one-planet
11. HLPF Review of SDGs implementation: SDG 12 - Ensure sustainable consumption and production patterns. (2018). Retrieved from https://sustainabledevelopment.un.org/content/documents/196532018backgroundnotesSDG12.pdf
12. HLPF Summary. (2019). Retrieved from https://undocs.org/E/HLPF/2019/8
13. Sustainable Development report (2019). Retrieved from. https://unstats.un.org/sdgs/report/2019/The-Sustainable-Development-Goals-Report-2019.pdf
14. Reshaping Governance for Sustainability. (2019). Retrieved from https://www.2030spotlight.org/sites/default/files/spot2019/Spotlight_Innenteil_2019_web_gesamt.pdf
15. Waas et al. (2011). Sustainable Development: A Bird's Eye View. Retrieved from https://www.researchgate.net/profile/Jean_Huge2/publication/227439233_Sustainable_Development_A_Bird%27s_Eye_View/links/53fb21c00cf2e3cbf565ffca/Sustainable-Development-A-Birds-Eye-View.pdf?origin=publication_detail
16. Waas et al. (2014). Sustainability Assessment and Indicators: Tools in a Decision-Making Strategy for Sustainable Development, 2-5. Retrieved from https://core.ac.uk/download/pdf/55898228.pdf
17. Goal 12: Ensure sustainable consumption and production patterns. (2015). Retrieved from https://www.un.org/sustainabledevelopment/sustainable-consumption-production/
18. Information for integrated Decision-Making and Participation. (2015). Retrieved from https://sustainabledevelopment.un.org/topics/information-integrated-decision-making-and-participation
19. Scoones, I. (2016). The Politics of Sustainability,17. doi:10.1146/annurev-environ-110615-090039
20. Kemp, R. & Sarto, S. (2005). Governance for sustainable development: moving from theory to practice, 12. doi: 10.1504/IJSD.2005.007372
21. Parker, L. (2019, June 7). The world's plastic pollution crisis explained. Retrieved from https://www.nationalgeographic.com/environment/habitats/plastic-pollution/
22. Articles, Data Images. Retrieved from https://businessfightspoverty.org/articles/no-time-to-waste-the-plastic-crisis-and-the-worlds-poorest/ , https://slate.com/technology/2018/06/why-china-import-half-world-used-plastic.html, https://economictimes.indiatimes.com/news/politics-and-nation/shocking-over-121000-mt-plastic-waste-slyly-imported-in-india/punctures-efforts-to-curb-pollution/slideshow/70477487.cmshttps://www.hintonswaste.co.uk/news/best-recycling-practices-around-the-world/, https://en.wikipedia.org/wiki/Waste-to-energy, https://www.recyclingtoday.com/article/india-bans-plastic-scrap-imports/,https://www.regenwaste.com/regen-wte, https://www.worldatlas.com/articles/oecd-leading-countries-in-recycling.html
23. ali, S et al. (2019). Soil Stabilization by using Plastic Waste. *International Research Journal of Engineering and Technology (IRJET), Volume: 06 Issue: 04.* Retrieved from https://www.irjet.net/archives/V6/i4/IRJET-V6I4856.pdf
24. UNCCD Report. (2018) SDG Indicator 15.3.1. Retrieved from https://knowledge.unccd.int/topics/sustainable-development-goals-sdgs/sdg-indicator-1531
25. Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development (2015). Retrieved from https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%20refinement_Eng.pdf
26. Data for SDG mapping. Retrieved from https://sdg-tracker.org/