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INSIGHT

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THE GLOBAL GOALS

For Sustainable Development



MESSAGE FROM THE DIRECTOR GENERAL



The strategic process for sustainable development is a complex one. It defines a society's collaborative economic, social and ecological goals. It requires a transformation in the way in which we address our contemporary development challenges.

The critical knowledge gap that exists among stakeholders at all levels with regard to various policy options and strategic solutions to development gaps remain one of the greatest challenges to achieving the 2030 Agenda for Sustainable Development: The Sustainable Development Goals (SDGs).

Through 'INSIGHT' a compilation of articles written by the staff of the Sustainable Development Council, we hope to share our knowledge and expertise and to draw your attention to possible policy options and development pathways that could help transform Sri Lanka into a sustainable and resilient nation.

I would like to express my sincere gratitude to all my staff at the Sustainable Development Council for their contributions to this Volume of INSIGHT and for their untiring efforts towards realizing this collective vision for Sri Lanka.

Chamindry Saparmadu

Director General
Sustainable Development Council of Sri Lanka



"We cannot all succeed when half of us are held back."

- Malala Yousafzai

EMPOWERING WOMEN FOR A SUSTAINABLE FUTURE

- Wasana Gamagewaththa

Gender Equality is a fundamental human right and a precondition for sustainable development. It is one of the 17 Goals included in the 2030 Agenda for Sustainable Development (SDGs) adopted by all nations of the United Nations in 2015. The Goal 5 is “to achieve Gender Equality and empower all women and girls”.

In Sri Lanka, out of a 21,485,353 population, 50.7% are women and they contribute to the country’s economy through regulated and unregulated occupations. Women participation can be seen in all three sectors; agriculture, industry and services. The foreign employment markets for Sri Lankan workers were mainly dominated by women for several decades. Remittances, mostly from female workers, play a significant role in our country’s economic development. According to the Annual Report of the Sri Lanka Bureau of Foreign Employment, female migration for employment was 39% in 2018.

Investing in women empowerment drives economic prosperity for all, improves health outcomes, and creates more peaceful and sustainable societies. Women’s economic empowerment is a key entry point for eliminating the gender gap and also achieve sustainable economies. Limited access to credit and

other financial services for women, limited physical access to the job market for rural women, unequal property access for women and limited representation of women in decision making processes and in political institutions can be considered as the greatest barriers for economically empowering women in Sri Lanka.

The Labor Force Survey (LBS) carried out by the Department of Census & Statistics shows that the majority of females (73.7%) are in the economically inactive group in 2019. Only 34.5% of women participate in the labor force, compared to 73 % of men in 2019. Further, it shows the unemployment rate has doubled for females (7.4%) than males (3.3%) in 2019. Especially, the unemployment rate for rural women is higher (7.7%) than urban (6.8%) and estate (5.3%) women.

The LBS 2019 found that the percentage of women in managerial positions was at 25.6% in 2019, indicating severe underrepresentation of women in the decision-making process in Sri Lanka. There is also an urgent need to refocus policies and programmes to be fully responsive to the rights, priorities and needs of older women. Increasing the labor force participation of older workers by reducing labor market rigidities is an important way to improve the size of the labor force with aging.

Women in rural areas have weak access to land ownership. Male dominance in property ownership can be seen in most areas. Women's ownership of small and medium-sized enterprises (SMEs) is at a very low rate in Sri Lanka. The call for government intervention to introduce policies to promote equal right of men and women to land, housing and properties is therefore, compelling. Further, provision of training using modern technology to enhance business skills of rural women through vocational training centers is a way to enhance women ownership of SMEs. Lack of awareness among rural women on opportunities to access and benefit from financial services, especially micro-credit programs, is another issue to be addressed through well-designed financial services to enhance financial skills and literacy.

World over, countries are adopting different approaches to enhance women's economic empowerment.

Knowledge Hub facilities for Agriculture sectors are famous for their contribution to empower women in agriculture sector mainly by promoting networks, introducing new techniques, supporting learning & innovation, giving access to resources for women. According to the Pacific Risk Resilience Programme, countries like Vanuatu, Solomon Islands, Fiji have established more than one knowledge hubs in their communities. The Oxfam Knowledge Hub on Women's Economic Empowerment in Agriculture's platform is an online community where Oxfam and other stakeholders share knowledge and experiences on Women's Empowerment in the agricultural sector.

Gendered Enterprise and Markets (GEM) Toolkit is an approach for sustainable livelihoods development, driving change in markets and social systems to empower women. Improving smallholder access to agricultural markets and women's economic leadership, adaptation and reduction of risks, including climate change are the key elements in this approach which can be used to empower women in small scale industries. Sri Lanka is also a partner of GEM.

Rapid Care Analysis is an approach that can be used to empower women by identifying how care responsibility impacts women's time, health or mobility and identifies practical interventions to ensure that women can fully participate and benefit equally from development programmes. It is a set of exercises for the rapid participatory assessment of unpaid household work and care of people in communities. According to this approach, assessment of care shows how women's responsibility for care work may impact on their participation in or benefitting from development projects. It will be helpful to identify and understand care work in women and find practical solutions to problematic tasks and patterns of care.

The National Policy Framework 'Vistas of Prosperity and Splendor' includes several strategies aimed at empowering women in Sri Lanka. The policy focuses on enhancing the living conditions of rural women by introducing home-based enterprises. To encourage women and increase labor force participation, the policy focuses on introducing flexible working arrangement for young mothers. The policy also focuses on uplifting women entrepreneurs and

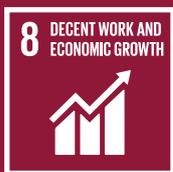
enhancing the involvement of village women in economic activities. The 2021 National Budget proposes the setting up of a retail shop in each Grama Niladhari Division as a means to encouraging women entrepreneurs from Samurdhi-low-income families, creating opportunities for them to be engaged in economic activity. This is a timely initiative to support rural women in Sri Lanka.

While these initiatives are appreciable, achieving gender equality in Sri Lanka (within the meaning of SDG 5) further requires a holistic approach giving more attention to economic, social and political empowerment of women.



**Wasana
Gamagwaththa**

BA(Sp) Econ, MA(Econ)
Sustainable Development Officer
SDCSL



“When digital transformation is done right, it’s like a caterpillar turning into a butterfly, but when done wrong, all you have is a really fast caterpillar.”

- George Westerman

PROMOTING DIGITAL- DRIVEN SMES FOR SUSTAINABLE ECONOMY

- Sheron Hewawaduge

Prevailing pandemic has challenged the entire business world, particularly Small and Medium Scale Enterprises (SMEs) posing a risk on their resilience. The magnitude of the impact may vary depending on the nature of the business activity. However, it is observed that the businesses that are operating and catering to customers through the online market space experienced relatively less impact during this period. This signifies the importance of technology as a tool to ensure business resilience during difficult environments.

The 2030 Sustainable Development Agenda adopted by the United Nations member states, including Sri Lanka, emphasizes the importance of technological transformation towards sustainable development. The present article focuses on its capacity to promote SMEs through the digitalization of sales and marketing processes. Digitalization is certainly not a new strategy, but has recently gained increased attention than ever. Improvements in digital marketing could be observed in the recent times and it has become essential for business resilience at present.

A Survey done by McKinsey & Company has found that Covid- 19 has pushed the companies over the technology tipping point and accelerated the digitalization

of customer and supply-chain interactions by three to four years. This adaption and acceleration in a country like Sri Lanka will be much slower compared to developed countries due to the differences in digital literacy level and digital divide. Majority of SMEs in the developing world does not feature in the digital space and this may lead to poor business achievements and consequently contributing to slowing economic growth and widening inequalities.

Regardless of the size, all businesses have prospects in the online market space to reach a wider group of people and even to reach the global marketplace in a way that is both cost effective and measurable. A research done by M.P.R.Rassool and D.M.R.Dissanayake from the University of Kelaniya , indicates that digital transformation puts SMEs in an excellent position to improve on the productivity levels.

Let's look into the barriers that exist to digitalize the sales and marketing processes of SMEs in Sri Lanka. Lack of IT skills, lack of awareness about the benefits of digitalization, how to select web developers and where to start, the cost of digitalization, issues relating to data security can be taken as few. Retail businesses are a special sort of SMEs and most of them have low means to invest in e-commerce. Raising awareness, low cost

digitalization packages, and platforms to link entrepreneurs and IT professionals are some convincing entry points.

Moreover, a city based online site could be launched where all retailers can register and open an online store. The site can charge a reasonable fee based on the services provided to the retailers. Such initiatives are required, especially outside Colombo. Media needs to link entrepreneurs with skilled professionals who can help market products at a reasonable cost. Many countries have dedicated business news channels such as Bloomberg Television- USA, CNBC TV18- India, Business TV- Nepal etc. to telecast business news, analysis from the world's most important financial centers, the key markets and leading producers. The media platforms can enhance awareness among business owners and link them with IT professionals to digitalize their sales and marketing processes.

Freelancing platforms such as 'Upwork' offer website development at a competitively low rate and many local IT professionals offering their service on such platforms. If we can absorb their skills locally by linking them with prospective entrepreneurs, SMEs can even tap the international market. Support services are also slowly developing in Sri Lanka. The "LANKAQR" payment app, which is being promoted by the Central Bank of Sri Lanka to encourage the general public to switch to digital payments and the delivery services such as Uber and PickMe etc. are few examples.

The national policy framework 'Vistas of Prosperity and Splendour' has outlined

the importance of moving forward with technology. The Information and Communication Technology Agency of Sri Lanka (ICTA) is also engaged in "Sri Lanka Go Digital" program where entrepreneurs from regional SMEs are supported to uplift their businesses with digital technology. As I mentioned earlier, these programmes should be equally spread across the island and easily accessible online markets should be promoted regionally to reap the maximum contribution from SMEs to the national economy.



Sheron Hewawaduge

BA(Sp)Econ, MA(Econ)

Assistant Director

SDCSL



“Sustainable Development is everybody’s business”

- Anonymous

RESTRUCTURING SRI LANKA'S MANUFACTURING SECTOR TO FACILITATE SUSTAINABLE INDUSTRIAL DEVELOPMENT

- Chamoda Halambaarachchi

The 2030 Agenda for Sustainable Development is a universal action plan aiming to transform our world for the better and to create the future we all like to see. In 2015, all United Nations member states including Sri Lanka, adopted 17 Goals committed to “achieve sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner. ”

The outbreak of Covid-19 has pushed the world into a new normal, imposing both challenges and opportunities in achieving the 2030 Agenda and the Sustainable Development Goals (SDGs). In addition to the health impacts, the pandemic has imposed several challenges to the global economy.

One of the most crucial economic sectors that has been hard hit is the manufacturing sector, which plays a vital role in economic development of a country. According to experts, manufacturing industries all over the world have been adversely affected by the pandemic due to disruptions caused in global value chains and the supply of products. As a consequence, the importance of promoting and fostering a resilient and sustainable manufacturing sector has again come to the forefront of discussions.

When considering the Sri Lankan context, the manufacturing sector accounts for around 60% of the total industry sector according to the Index of Industrial Production (IIP). However, research findings show that the manufacturing sector has taken a backseat in Sri Lanka's recent economic performance . According to Central Bank data, manufacturing reported a 17.5% contribution to Gross Domestic Product in 2008 whereas it was reduced to 15.6% in 2019 . The Annual Industry Survey (2018) conducted by the Department of Census and Statistics, provides evidence to the fact that low technology industries such as manufacturing food products and wearing apparels are the highest contributing industries in manufacturing sector while the contribution from high-tech manufacturing industries are inadequate to fuel industrial development .

According to the Organization for Economic Cooperation and Development (OECD), manufacturing industries are classified as Low-technology, Medium-low-technology, Medium-high-technology and High technology industries based on the level of Research and Development intensity . Medium-high-technology and High technology (MHT) industries such as electrical equipment, transport equipment, pharmaceuticals and motor vehicles, are considered to be the high value addition industries of manufacturing.

These industries are associated with high value-added production by creating a higher customer perceived value and lower production cost through the application of leading-edge technical knowledge, higher labour productivity, and higher production efficiency. Since innovation and technology are the central focus in MHT industries, a significant amount of investment is made in Research and Development. High-tech industry is considered to be the decisive force in future industrial development and contributes towards fostering a high value added manufacturing industry with resilience. It also has strong potential to bring sustainable growth and high economic value while improving Sri Lanka's competitiveness in international markets by promoting high tech exports.

According to World Bank data, Sri Lanka's high technology exports as a percentage of manufactured exports were around 1% during 2009-2017 period whereas other South Asian countries on average reported around 7% in 2016 and 2017 .

In the article "Can Sri Lanka build a prosperous post-war future?" the author has noted that, in relation to international trade, Sri Lanka can no longer compete at the lower end of the spectrum with rising wage and other input costs. It also has mentioned that the country is struggling to move higher up the spectrum, with limited capacity for innovation and upgrading technology due to continued low investment in R&D and a very narrow talent pool of knowledge workers.

Thus, it's a timely requirement for Sri Lanka to focus on restructuring the manufacturing sector by promoting MHT industries as a

main solution. The biggest challenge in this regard is to ensure a smooth transition from low to high value-added industries. According to the Central Bank Report 2019, the government has initiated several policy measures and provided institutional support aiming to cater to the above requirement .

"Shilpasena" exhibition is one such initiative aiming at promoting innovations and inventions and paving the path to develop technological and scientific thinking. The government has also commenced programmes focusing on popularizing Science, Technology, Engineering, and Mathematics (STEM) education and modern technologies and to support research commercialization.

Steps have been taken to formulate a National Industrial Policy in line with the Sustainable Development Goals and to update the existing national science and technology policy incorporating aspects of innovation and commercialization.

In order to empower Micro, Small and Medium Enterprises (MSMEs), "Vidatha" Programmes have also been introduced to support the transfer of scientific knowledge and research innovations of scientists to MSMEs.

Further, effective measures have been taken to incentivize the mechatronics sector through providing long term loan facilities for companies to commence mechatronics based product development and implementing the "Mechatronics enabled Economic Development" Initiative aiming to accelerate economic growth through high-tech exports. The government also

expects to attract foreign direct investments in developing the domestic electrical and electronics manufacturing industry whilst connecting to the global supply chains. Facilitating higher tier industries to successfully shift to the Industry 4.0 level (Fourth Industrial Revolution) where manufacturing automation is a key factor, also has been identified as a priority in upgrading domestic industries.

Though the government has given utmost importance and support towards fostering a sustainable and reliable high value added manufacturing sector, the Covid-19 pandemic has disrupted the status quo imposing great challenges in the transition process. Hence, it is vital to review, validate and make appropriate adjustments to the aforementioned initiatives while developing innovative strategies in addressing new challenges to ensure that Sri Lanka will

achieve sustainable industrialization and consequently progress towards achieving the Sustainable Development Goals (SDGs).



**Chamoda
Halambaarachchi**

BSc.(Sp) Finance
Sustainable Development Officer
SDCSL



“Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

- Gro Harlem Brundtland

LEVERAGING INNOVATION FOR SUSTAINABLE DEVELOPMENT IN SRI LANKA

- Sheron Hewawaduge

Innovation is an essential driver of economic progress. The 2030 agenda for Sustainable Development goes beyond economic growth and requires innovation for sustainability. Process innovation to decouple economic growth from environmental degradation is of a great importance to achieve sustainable development.

Any modification to the existing manufacturing process, which reduces emission of greenhouse gases, use of non-renewable or toxic materials and waste or increase the use of clean energy or energy efficiency could be taken as sustainable process innovation. For example, Singapore's BlueRen Company has developed a manufacturing process that produces carbon nanotubes using discarded plastics. These nanotubes are being used to design Singapore's skyscrapers and other buildings. This invention helps to reduce the plastic waste generation through recycling and reuse.

SDG Target 9.2 focuses on promoting inclusive and sustainable industrialization by 2030. Empirical evidence strongly suggests that sustainable manufacturing has a positive impact towards company performances. A research done by J.M Kneipp, C.M. Gomes, R.S Bichueti, K. Frizzo, and A.P Perlin , has found that there are significantly positive associations between several variables related to sustainable innovation practices and company performance. Another study, done by Urhan Gunday, Gunduz Ulusoy, Kemal Kilic, Lutfihak Alpkcan , has found that there is a positive effect of innovations on firm performance in manufacturing industries.

Looking in to the national context, fostering innovation is essential to win economic and environmental challenges and also to strengthen the financial position of the country. However, according to the Global Innovation Index Raking in 2020, Sri Lanka ranked at 101st place out of 131 countries, showing that Sri Lanka has a long way to



go to truly benefit from innovation driven development.

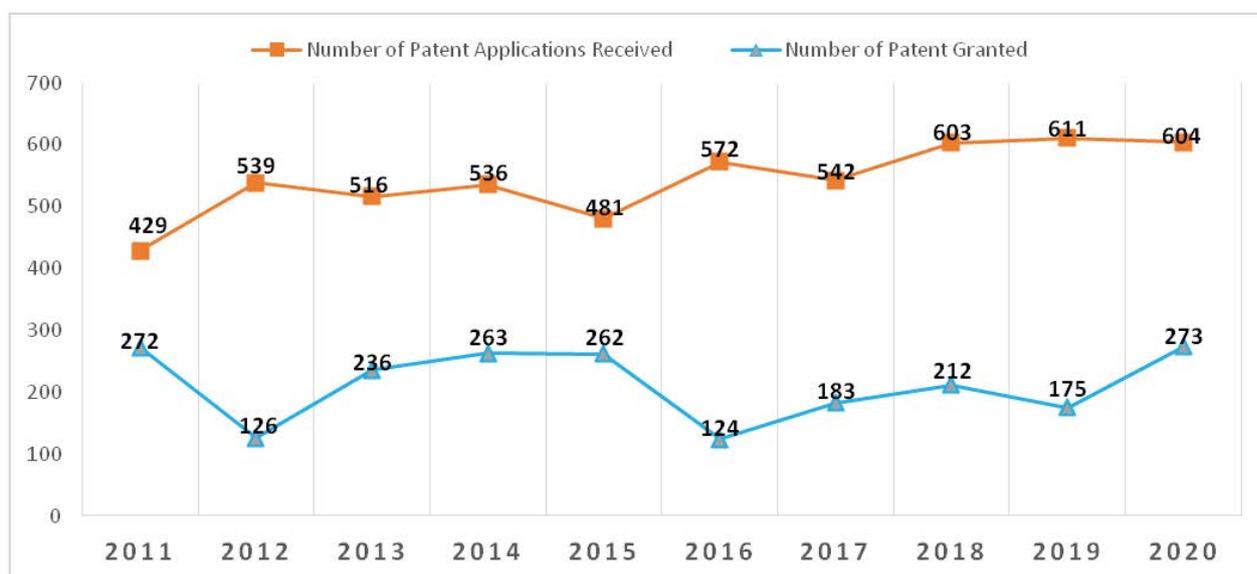
The National Policy framework of 'Vistas of Prosperity and Splendour' has placed a special focus on innovations with the aim of promoting Sri Lanka as a Global Innovation Hub. It outlines strategies to develop agriculture through advanced technological innovations such as providing financial allocations to enhance research facilities, providing assistance to develop innovative bio-pesticides and low-cost integrated pest management system, establishing patent system, etc. It also focuses on encouraging researchers, scientists and producers in Rubber Industry to undertake research in value addition and technological innovations.

According to the World Intellectual Property Organization (WIPO), a patent is an exclusive right granted for an invention, which is a product or a process that provides a new way of doing something, or offers a new technical solution to a problem. Therefore, number of granted patents can be taken as a useful indicator to measure innovation performance of a country.

According to Figure 01, in Sri Lanka, despite the economic downturn due to Covid 19 pandemic, number of granted patents has increased in 2020 compared to previous years. Amidst the pandemic, this is a significant improvement, which may shed light on the business opportunities emerging in the post-Covid 19 context. Low-cost open-source ventilator and the semi-automated telepresence robot to provide treatment for Covid-19 are some of the pandemic related inventions introduced in Sri Lanka.

Innovation plays a critical role in value added industries in Sri Lanka, especially in the export sector industries such as gem and jewelry, mineral sand, phosphate, fertilizer and graphite etc. Value addition to domestic graphite industry by producing Graphene from Graphite is a good example. Sri Lanka Institute of Nanotechnology has developed a method in producing Graphene, which is used in many industries such as automotive, battery, electronic etc. Hence, innovation is significant to improve export competitiveness and increase turnover.

Renewable energy is another potential sector which requires technological



innovation. SDG Target 7.2 aims to increase the share of renewable energy in the total energy mix. The cost of generating electricity from renewable energy sources is higher than the non-renewable sources such as coal. According to the Statistical Digest of Ceylon Electricity Board, share of total electricity generation using coal is 34%, while the share of renewable sources is only 5% in 2019. Therefore, technological innovations to increase the energy generation from renewable sources and minimize the cost are important to increase the share of renewable energy in the total energy mix.

It is imperative to adopt new strategies to boost innovations and promote Sri Lanka to be a part of the global innovation network. Through analyzing the efforts of national innovation systems in Brazil, Russia, China and South Africa (BRICS), Jose E. Cassiolato, Graziela Zucoloto, Dinesh Abrol and Xielin Liu have found that the BRICS governments have common strategies to attract foreign direct investment (FDI), particularly from multinationals, to modernize manufacturing and increase productivity. Therefore, Sri Lanka should explore to attract investment, including FDI to modernize the manufacturing sector in a sustainable way.

In addition to investment, initiatives to harness the maximum contribution from potential entrepreneurial firms, research institutes and universities are also important. Offering tax incentives for research and development is crucially important to promote innovations in Sri Lanka. Access to finance, tax concessions and proper mechanism to commercialize innovations will empower potential entrepreneurs. Boosting research and development by incentives, access to finance, increase public awareness, enhance entrepreneur's interaction with the research institutes, knowledge sharing with global innovation networks will foster innovations to accelerate the economic progress and sustainable development in Sri Lanka.



Sheron Hewawaduge

BA(Sp)Econ, MA(Econ)

Assistant Director

SDCSL



“Where you see wrong or inequality or injustice, speak out, because this is your country. This is your democracy. Make it. Protect it. Pass it on.”

- Thurgood Marshall

EMPOWERING SRI LANKA'S DISABLED COMMUNITY TO BECOME ACTIVE CONTRIBUTORS IN ACHIEVING THE 2030 AGENDA

- Chamoda Halambaarachchi

One of the main drawbacks of the previous Millennium Development Agenda, which represented the “commitments of nations to reduce extreme poverty and its many manifestations: hunger, disease, gender inequality, lack of education and access to basic infrastructure, and environmental degradation” is the complete absence of addressing the issues and challenges confronting the disabled community. The 2030 Agenda for Sustainable Development and its 17 SDGs seek to build on the Millennium Development Goals and complete what they did not achieve, by providing a powerful framework to guide local communities, countries and the international community towards disability-inclusive development. It also pledges to leave no one behind, including people with disabilities and other disadvantaged groups, and has recognized disability as a cross-cutting issue to be considered in the implementation of the 17 Goals.

According to the first ever World Report on Disability published in 2011, it was estimated that over a billion people, including children, were living with some form of disability; the disabled population was estimated to be around 15% of the world's population.

As for the United Nations' Convention

on the Rights of Persons with Disabilities (CRPD), disability is considered to be an “evolving concept” and persons with disabilities are described as “those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others”. Disability is considered to be a universal human experience since everyone will experience some physical and mental limitations in functioning at some point in life. Hence “disability is a matter of degree, because mental and physical impairments range in severity, from minor to severe”.

ADB Sri Lanka Country Report on Disabled People and Development (2005) identifies malnutrition, accidents, conflict and trauma, diseases and aging as the main causes of disability in Sri Lanka. As a country that experienced a 26 year long civil war, the 2004 Indian Ocean tsunami, and being one of the fastest aging countries in South Asia, it is estimated by the Census of Population and Housing (2012) that around 1.6 million people in Sri Lanka, 87 persons per every 1000 in the population are living with some form of disability.

As a developing country constrained by resource limitations, the specific issues

of the disabled people in Sri Lanka may not always receive the attention that is required in public spending. Therefore, it is vital to have a reliable disability cost estimation to design and develop effective public programs and projects to identify and prioritize people who are really in need of support and to directly address their issues..

In 2003, Sri Lanka introduced its own National Policy on Disability and is a signatory to the United Nations Convention on the Rights of Persons with Disabilities. Accordingly, several projects and programs were initiated aiming to strengthen the disabled community under the purview of the government and those include, providing vocational training, employment and monthly cash allowances for disabled low-income earners, implementing a community-based rehabilitation program, assisting in the early childhood development of children with special needs, and providing assistive devices.

Although a significant number of measures have been taken to empower the disabled community in Sri Lanka, there are some existing gaps and issues that need to be addressed in order to ensure effective decision making and implementation.

Differences in interpretation and classification of disabilities are one such issue. This is due to the reason that more than one public institution is in the process of collecting data and delivering services for the disabled community. These differences lead to problems in comparing and developing unified data. As the Census of Population and Housing of Sri Lanka is conducted once in every

ten years, and being the main data collector on disability in Sri Lanka, there is a formidable challenge with regard to decision making and developing national policies and programs based on years old data .

One of the main barriers for the disabled community in Sri Lanka is the lack of accessibility to public buildings, transport systems and information. Particularly the lack of access to transport has been identified as a major obstacle in employing disabled persons effectively. According to the Conference Paper, "Disability Access in Public Buildings ", it is noted that in Sri Lanka, "railway and bus services are still not improved for people who have disability, since there is not any bus or train with disability access facilities."

According to the findings of UNICEF Sri Lanka's 'Learning Disabilities in Sri Lanka' (2016) Report, "23.5% of children aged 5-14 with disabilities are excluded from mainstream education (DCS, Statistical Data 2012) and amongst those who do attend mainstream schools, participation in educational activity reduces with age" while "around 55.4% of the disabled population aged 15-19 and 86% of the disabled population aged 20-24 are not engaged in any educational activity or vocational training". The lack of skilled teachers and appropriate infrastructure in schools, limited scope in curricula and the overall quality of education are identified as the main reasons for children living with disabilities missing out on the benefits of education. Abayasekare A. in his article titled "How Disability-Inclusive is Education in Sri Lanka? A Preliminary Look" , notes that the supportive infrastructure

to accommodate the specific needs of students with disabilities other than visual impairments is not adequate.

When analyzing the economic activities, the findings of Census of Population and Housing (2012) shows that 70.9% of the 1.5 million impaired persons who were considered to have the ability to be economically active, were not engaged in any economic activity.

Concerns are raised as the above data provides evidence with regards to the lower educational achievements and lower employment rates of persons with disability, as these hinder the ability to actively participate in national development, thereby adding significant economic and social costs to the country . As disability is fundamentally connected with poverty, people with disability are amongst the poorest and most vulnerable in any community. They are less likely to access health care, education, livelihoods and social opportunities than people without disability, and often face discrimination or are stigmatised leading to reduced income, poorer health and social exclusion.

Consequently, it is important to address the existing gaps between policy and practice, as well as prioritize policy interventions in line with existing legislation when designing and implementing programs and projects. To achieve the 2030 Agenda with the active participation of the disabled community, Sri Lanka should promote disability-inclusive development by gradually lifting the barriers and enabling persons with disabilities to achieve their full potential.



**Chamoda
Halambaarachchi**

BSc.(Sp) Finance
Sustainable Development Officer
SDCSL



**“A sustainable world means working together
to create prosperity for all.”**

- Jacqueline Novogratz

BUILDING SUSTAINABLE CITIES AND HUMAN SETTLEMENTS FOR A SUSTAINABLE FUTURE

- Nipuni Senanayake

The 'modern city' is a catalyst for development, due to the level of human activity within its bounds. The 'city' is interconnected with every other factor including demography, technology, economy, environment, political changes etc and as such is also affected by any fluctuation. This is a challenge to creating sustainable, safe and livable cities at present.

Sustainable Development Goals (SDGs), agreed upon by all member nations of the United Nations in 2015, dedicate Goal 11 to make cities more inclusive, safe, resilient and sustainable. A sustainable city is one that could cater to the needs of its inhabitants towards ensuring a comfortable living environment. Public services, rapid and clean transportation networks, adequate housing facilities, intelligent urban fittings, well maintained public open spaces, urban forests, productive use of waste and strategies for reducing carbon emissions are some of the main features of a sustainable city.

In Sri Lanka, 18.2% of the population is urban dwellers, according to the Census of Population and Housing in 2012. According to a research done by the University of Moratuwa, it is predicted that 65% of the population in Sri Lanka will live in urban areas by 2030. This rapid urbanization can be explained by people's desire

to consume more, try smarter services, reduce commuting expenses, improve quality of life and more importantly to uplift their social status. Urban migration creates massive accommodation demands in addition to increasing traffic congestion, high urban density, solid waste generation, overuse of non-renewable resources, environmental pollution, social inequality etc.

City planning can be modernized and better streamlined to meet the contemporary challenges associated with rapid urbanization. National Physical Planning Policy and Plan 2017-2050 has identified green built environments, urban forests and open spaces as essentials for sustainable development within urban areas.

'Green Building' approaches have been identified as vital for sustainable development in the context of rapid urbanization. Increasing demand for urban housing has resulted in skyscrapers and vertical developments across Sri Lanka. A research conducted by the Central Engineering Consultancy Bureau with the University of Peradeniya, found that applying 'Green Building' concept can result in a reduction of carbon emissions by 35%, solid waste by 70%, water usage by 40%, and energy usage by 50%. Any building can be developed as a 'Green

Building' whether it's a home, office, hotel, school, shop etc. Renewable energy usage, solar photovoltaic (PV) installation and efficient lighting systems are common approaches towards greening buildings. A transformation towards renewable energy is a key priority outlined in the National Policy Framework 'Vistas of Prosperity and Splendour'.

Water harvesting, on-site waste and waste water management using recycle or re-use are also important ways of 'greening buildings'. Minimization and segregation of waste are basic steps in waste management that we can easily adopt and practice.

Some robust initiatives have been proposed under the National Policy Framework of 'Vistas of Prosperity and Splendour' towards 'greening of cities'. The existing linear economy which produces goods using raw materials and disposing waste into the environment is proposed to be transformed into a circular economy, where the waste of one industry could be used as inputs in another industry. This is a practical way of using the 3R (reduce, recycle, re-use) concept of waste management. Urban

forests, green paths, agroforestry are proposed to be established to control air pollution while promoting vertical green developments for settlements.

The strategic urban planning initiatives to be taken by the government aim at promoting sustainable urban development. We, as citizens, have a duty to build a sustainable future by sharing in responsibilities towards creating sustainable cities.



Nipuni Senanayake

BSc.(Hons) T&CP

Sustainable Development Officer

SDCSL



Building sustainable cities - and a sustainable future - will need open dialogue among all branches of national, regional and local government. And it will need the engagement of all stakeholders."

- Ban Ki-moon

BUILDING SAFE-HEALTHY-GREEN-LIVABLE “STREETS FOR LIFE”

- Nadeeka Amarasinghe

Every year, more than 1.35 million people die in road traffic crashes around the world; that is one person every 24 seconds. About 93% of the fatalities happen in low & middle-income countries. Children and young adults between 05 -29 years are the most vulnerable and 73% of all road traffic deaths occur among young males below 25 years of age. According to WHO road-traffic-injuries fact sheets - 2020, the road traffic accidents cost about 3% of the GDP in most countries. In Sri Lanka, according to Police Department, over the past 10 years, the government incurred around 30 billion Rupees on legal proceeding and police investigations related to road traffic accidents.

According to the Department of Census & Statistics, Sri Lanka has an average of 38,000 accidents annually and 7-8 people lose their lives each day. More than 3,000 deaths and 8,000 serious injuries are recorded annually as per the statistics of Sri Lankan Police. Many of them are aged between 15-45 years. World Bank Report, 2020 on Road Safety in Sri Lanka has highlighted that Sri Lanka will require an additional investment of US\$ 02 billion to reduce the national road accident fatalities by 50%.

In addition to injuries and loss of lives, the road accidents also cause increased dependency, destruction of property,

injuries and permanent disabilities etc. and make families fall into poverty traps as they either lose their breadwinners or have to support family members who become disabled.

Over speeding, lack of road discipline, inability to follow road rules, non-use of safety gears like seat belts, helmets etc., drunken driving, poor road infrastructure are few of the major reasons for road accidents. According to the National Council for Road Safety, most of the accidents occur during festive months of April and December. 70% of road accidents involve low-income commuters and motorists. Out of that, 40% of pedestrian fatalities were reported due to motorcycle-pedestrian accidents and 10% of the fatalities were reported at railroad level crossings as per the Road Safety in Sri Lanka, World Bank Report-2020.

The 2030 Agenda on, “Sustainable Development Goals” aims at halving the number of global deaths and injuries from road traffic accidents by 2030 whilst also advocating for promoting access to safe, affordable, accessible and sustainable transport system for all, improving road safety, notably by expanding public transport with special attention to the need of those in vulnerable situations, women, children, persons with disabilities and other older persons.

“Streets for Life” is the slogan chosen for the 6th UN Global Road Safety Week (17th -23rd May 2021), to call for 30km/h speed limits to be the norm for cities, towns and villages worldwide. It is claimed that the 30km/h speed limit saves lives and protects all, especially the most vulnerable like pedestrians, cyclists, children, older people and people with disabilities. On the other hand, it will ensure safe, healthy, green and livable cities, by mainly reducing air pollution and promoting safe walking and cycling that leading to a reduction in car dependency and towards zero-carbon mobility.

The UN Road Safety Strategy has introduced the basis of “safe system approach”. It aims to oversee the interactions among speed, vehicle, road infrastructure and road-user behavior to avoid accidents, resulting in lower mortality rates and less serious injuries. This strategy comprises 05 pillars: road safety management, safer fleets, safer road users, post-crash response and creating safer driving environment.

In Sri Lanka, the National Policy Framework “Vistas of Prosperity and Splendour” has proposed several interventions to ensure road safety including construction of pedestrian paths on all roads and establishing a mechanism for pedestrians to cross roads only in designated places, monitoring all major roads of the country through CCTV cameras, revisiting existing laws to provide reasonable compensation for deaths and irreversible disabilities due to road accidents.

As a country, we need to ensure the road user’s discipline, improve road infrastructure, and promote public transport to achieve sustainable

transportation commitments of the 2030 Agenda. To achieve that, we need stronger collaboration among all stakeholders. Above all, individually we can execute our responsibilities voluntarily as citizens.



Nadeeka Amarasinghe

BSc.(Hons) T&CP, MSc.F&Ent Mngt

Assistant Director

SDCSL



**“We do not inherit the Earth from our ancestors,
we borrow it from our children.”**

- Chief Seattle

SUSTAINABLE CONSUMPTION FOR SUSTAINABLE DEVELOPMENT

- Sheron Hewawaduge

2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals, was adopted by the United Nations member states in 2015. This agenda provides a holistic approach to development addressing the economic, social and environment challenges that the world faces today.

Sustainable Development is not entirely a new or a western concept, but a concept embedded in our lifestyles by our culture enriched with Buddhist philosophy. One good example can be taken from the 3rd century BC, when Arahath Mahinda Thera preached to the King Devanampiya Tissa and made the king understand that the land belongs to the people and to all other living beings, and the king is only the guardian. This is a Buddhist tenet of conservation and sustainability. Likewise, it is a concept which has been practiced over time and started to fade away with the massive industrialization in the recent decades.

Achieving sustainable consumption has been recognized as an integral part of the 2030 Agenda through SD Goal 12. Sustainable consumption means to consume in a way that allows us to preserve our resources and the environment to the extent possible. As we all know, Carbon Dioxide (CO₂) emissions cause global warming and ocean acidification, it can also influence animal population through

entering the terrestrial and aquatic food webs and can alter ecosystem functioning. Indeed, the government has a key role to play in the implementation and accelerating the progress towards achieving the Sustainable Development Goals. Nevertheless, we, the people carry the biggest responsibility towards making the planet healthy. The collective impact of our mindful eco-friendly consumption becomes enormous to create a significant positive impact to the environment that we all depend on. It allows to protect natural habitat spread across both on land and below water, thus leaving a space to all the living beings on earth.

Many of us are not aware that small choices we make on a daily basis can actually have a significant impact on global environmental issues. That is due to lack of information on how to improve our own environmental performances. To put it simply, it's all about buying better, consuming better and throwing away better. This article will help you to find out some smart choices you can make to help slow down and eventually stop the demise of our planet.

Transportation releases a devastating percentage of CO₂ into the atmosphere which leads us to rethink on promoting earth-friendly transportation options. Walking, cycling and using public transportation whenever possible are some of the options

to limit your carbon footprint on earth. These options are also economical. Social distancing regulations due to COVID-19 have given us opportunity to explore the new potentials like work from home, virtual meetings etc. to reduce travel or the need to travel. Moreover, you could shift to more energy efficient technologies like Hybrid or Electric vehicles.

You can also switch to earth-friendly diet choices such as eat local, eat fresh, eat less meat and eat no endangered species. New research findings reveal that eating less beef will reduce the carbon footprint significantly. According to the Food and Agriculture Organization (FAO), beef has the highest emission intensities, which is 300kg CO₂-eq per 1 kg of protein produced. Cow milk and other meat products such as chicken and pork have lower global average emission intensities below 100 kg CO₂-eq per 1 kg of protein produced. Hence, the government decision to ban cattle slaughter is a laudable intervention.

Plastic pollution is one of the most catastrophic forms of waste pollution. Plastic takes a long time to decompose and end up in landfills or oceans posing a greater impact on wildlife, wildlife habitat and humans. According to the fact sheet of the Ocean Conference of the United Nations, plastic waste kills up to 1 million sea birds, 100,000 sea mammals, marine turtles and countless fish each year. Since it is cheap and hard to replace, plastic production is still at a higher level and plastic recycling has a long way to go. Each time you make the choice to avoid using plastic or recycle plastic products, you lower the risk of environmental damage.

To make a real environmental change, you can shift to reusable shopping bags, containers and carry a reusable water bottle. Avoid heavily and unnecessarily packaged foods as much as possible to limit the waste in your consumption cycle. You could also install a water filtration system at home to eliminate the need for bottled water. Recently launched programme to recycle used carbon pen tubes and toothbrushes is a good waste sorting initiative.

Composting your organic waste is another smart choice to reduce waste as well as to make rich soil for planting. Instead of throwing away most of the remains of your food like tea bags, egg shells and fruit and vegetable scraps etc., they can be composed in your own garden.

Simple and smart choices will help us to fulfill our responsibility towards making our planet healthy and share it with all other living beings.



Sheron Hewawaduge

BA(Sp)Econ, MA(Econ)

Assistant Director

SDCSL



“We are not going to save our ocean if we don't have an army of ocean heroes along every coastline”

- Dr Asha de Vos

MINIMIZING MARINE POLLUTION FOR A SUSTAINABLY DEVELOPED SRI LANKA

- Isuru Gomes

The Sustainable Development Goals (SDGs) or the Global goals aim at paving the way to a prosperous world in economic, social and environmental dimensions. There are 17 SDGs demarcated by the United Nations in 2015 to address the global challenges and almost all the countries of the world, including Sri Lanka are progressing towards achieving these goals.

Environment is highly challenged during the past few decades due to rapid industrialization that contributes to excessive use of fossil fuel, overconsumption of finite resources etc. as well as due to other human activities. The 17 SDGs outline the importance of conservation of the environment which is as important as economic and social development. Out of the 17 SDGs, Goal 14 and 15 are about conservation and sustainable use of the environment. Goal 14 discusses about conservation and sustainable use of life below water, particularly about oceans and seas and Goal 15 on sustainable use of life on land.

Marine environment is as significant as the terrestrial environment. Marine life, physical and chemical attributes of the ocean is a key to the balance of the planet. Moreover, as the oceans cover more than three quarters of our planet, fulfilling the food, water and energy requirements of

mankind, sustainable use and conservation of oceans, seas and marine resources are of immense importance as indicated by Goal 14.

At present, most of the marine ecosystems around the world are facing deterioration due to human activities. The marine pollution, ocean acidification as well as overfishing and over use of marine resources have threatened the biodiversity and the balance of the ocean. Hence, considering the challenges faced by the oceans and marine resources, the first target of Goal 14 is focused on reduction of marine pollution caused by land based activities, including marine debris and nutrient pollution.

Sri Lanka being a beautiful island nation surrounded by the Indian Ocean has a coastline that extends to 1620 km and is privileged with an Exclusive Economic Zone (The sea area up to 200 nautical miles from coastal line of a country where it has rights to exploit and manage the natural resources) which is eight times as big as the land area. Hence, the economy and livelihoods of people depend to a great extent on the marine ecosystems in the country. The coastal area of Sri Lanka comprises of mangroves, coral reefs, sand dunes, sea grass beds, lagoons, estuaries and wetlands that harbour many fish species, diverse invertebrates, as well as

turtles and whales. The fisheries sector is one of the major income sources in the country where the total marine fish catch is 86% out of the total fish production. The rich biodiversity in the marine ecosystems has made Sri Lanka a tourist hotspot as well. This makes the oceans and marine ecosystems a part of human livelihood and the economy. The importance of conserving the marine ecosystems in Sri Lanka, therefore, cannot be overemphasized.

In the recent years marine pollution has become the most serious threat to the oceans around Sri Lanka. The key reason for marine pollution in Sri Lanka was found to be due to microplastics that are plastics of size less than 5 mm, generated gradually from plastic waste collected in the ocean like bottles, bags, toothbrushes etc. Research conducted by National Aquatic Resources Research and Development Agency (NARA) in 2018 found that the water in the sea around Sri Lanka is highly polluted with microplastics, indicating their highest abundance in the waters of North Western coast . Plastic pollution in Sri Lankan oceans is caused by plastics dumped into the rivers and canals reaching the oceans as well as due to direct plastic dumping by fishermen.

Microplastic pollution results in the decrease of fish stocks due to the ingestion of microplastics by fish. This leads to a severe economic loss to a country like Sri Lanka, where the marine fishery sector contributes to 1.2% of the Gross Domestic Product. Consuming microplastic ingested fish that live in the polluted ocean could have severe health impacts. As indicated by a review study published in 'Science of the Total Environment' – Volume 702 (2020)

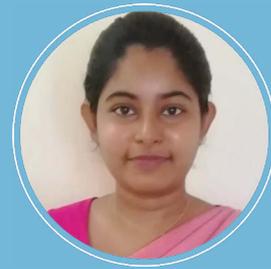
journal on effects of microplastics on human health, the microplastic ingestion causes disruption of immune function and cancer . In addition, marine birds too can be subjected to a greater threat and the rich biodiversity of the marine environment will experience degradation. Hence, marine pollution has a negative impact on tourism industry, aquaculture industry and the aesthetic beauty of Sri Lanka. Marine pollution will become an obstacle to the sustainable use of marine resources creating severe environmental and economic impacts.

Protecting our marine ecosystems requires a strong commitment by both policy makers and the general public. This means stronger law enforcement against plastic dumping in the oceans as well as implementing environmentally friendly solid waste management systems. A strong policy foundation has been built under the National Policy Framework 'Vistas of Prosperity and Splendour' towards achieving these objectives by encapsulating strategic targets focused on safeguarding the coastal areas and the marine environment. In addition, the Budget 2021 proposes the banning of the use of single use polythene and plastics with effect from January 01st towards more environmental friendly polythene and plastic waste management.

The public has a duty of adapting to the use of biodegradable materials in their day to day lives and to follow the 3R concept of reducing, reusing and recycling of plastic material. They need to cultivate the habit of refraining from dumping plastics to the oceans. As outlined in the National Policy Framework of 'Vistas of Prosperity and

Splendour', putting the 3R concept into practice is a timely need to address this issue.

The commitment and the collaboration of both the policy makers and the public towards minimizing marine pollution would ensure the conservation of marine resources paving the way to a healthy ocean and to a sustainably developed country.



Isuru Gomes

BSc.(Sp) MBL

Sustainable Development Officer

SDCSL



“There is a deep interconnectedness of all life on earth, from the tiniest organisms, to the largest ecosystems, and absolutely between each person.”

- Bryant McGill

SOCIAL TRANSFORMATION THROUGH ECOSYSTEM BASED ADAPTATIONS

- Nadeeka Amarasinghe

Today, we are talking about a number of issues related to ecosystem degradation all over the world. Amidst a worsening situation, not much attempt has been taken to find solutions to the issues being discussed and debated. First and foremost, we need to understand the value and the importance of the ecosystem as a fundamental unit for the existence of life on earth. Ecosystem is a “community of plants and animals interacting with each other in a given area, and also with their non-living environment”. This definition brings to focus two aspects relating to the ecosystem. Firstly, about the interactions between plants, animal species and their geographical environment and secondly about the fact that, each and every ecosystem operates within their own boundaries.

People are part of the natural system and our existence depends on how we interact with the ecosystem. Disruptions to essential ecosystem functions will disrupt the sustainability of levels of organization in nature. Individual organism & its environment build up the ecosystem and it is a part of a biome. All the biomes on earth create the biosphere. Insurmountable amount of benefits are provided through their structure and functions such as micro climate stabilization, carbon uptake and storage, soil and watershed protection, ground water recharge and discharge,

sediment accumulation and nutrient retention etc.

It is observed that development policies have constantly failed to recognize these potentials when they are formulated and implemented. Valuating and accounting of ecosystem benefits in national accounts and decision making processes seem a rare occurrence. In fact, there is a major requirement to embrace and capture the economic values of ecosystem services in mainstream decision making for effective policies for sustainable growth and social well-being.

Ecosystem management will be more effective with the participation of full range of stakeholders. There are three types of communities that must be considered in ecosystem management such as 1). communities of place, 2). communities of identity and 3). communities of interest. It is required to carefully design the strategies to harness the potential economic value and benefit sharing of ecosystems with people while conserving it. Ecosystem based adaptations provide long-term benefits for people and leads to social transformation towards sustainable growth.

Maintenance of biodiversity is the key principle of ecosystem management. Any change of species composition cause severe impacts to the entire ecosystem

irrespective of its level. Some species are also more useful to manage the ecosystem such as key- stone species. It is also necessary to accept the inevitable natural changes of the ecosystem.

It is important to make the right decisions at the right time by considering social, economic and environmental factors. Much attention needs to be given to ecosystem services, knowledge on ecosystem management, cultural, ethical and spiritual values while deriving material benefits. At the same time, enhancing the environment literacy of the community is vital.

Although, people are an integral part of the ecosystem, they are also the greatest threat to ecosystem functions. As such, without their corporation and contribution, ecosystem management will be a huge challenge in the future as well. It is very important to understand the social, economic and environmental values of the ecosystem and use it as a tool for achieving sustainable development.



Nadeeka Amarasinghe

BSc.(Hons) T&CP, MSc.F&Ent Mngt

Assistant Director

SDCSL



“The wetlands fix the balance of the earth and so it is imperative that the wetlands are kept protected.”

- Anonymous

CONSERVATION AND SUSTAINABLE USE OF WETLAND ECOSYSTEMS IN SRI LANKA

- Dilini Shashikala

Wetland ecosystems play a critical role in our natural environment. Since the early historic settlements, Sri Lankan civilizations are intertwined with wetland ecosystems. The services rendered by the wetlands are immense, covering all environmental, social, and economic aspects.

The wetlands act as filtering systems, removing sediment, nutrients, and pollutants and provides us with clean water. They maintain ecosystem resilience while minimizing the intensity and impacts from climatic disasters. More importantly, wetlands have the ability to absorb carbon and regulate the carbon levels of the atmosphere. Furthermore, wetlands are home to a diverse range of species, enhancing biodiversity and providing feeding and breeding grounds to migratory birds. Wetlands are very productive landscapes and as such, various industries such as agriculture, fisheries, forestry, and eco-tourism are bounded with these ecosystems. However, at present, human activities tremendously contribute to the degradation of wetlands by changing water quality, quantity, and flow rates; increasing pollutant inputs; and changing species composition as a result of disturbance and the introduction of non-native species. The quality and the quantity of wetlands all over the country are being diminished. Hence, it is high time that we bring up some sustainable solutions to

conserve these ecosystems and enhance their uses.

The 2030 Agenda for Sustainable Development adopted by all UN member states, has identified the urgent need for restoration and management of water-related ecosystems, including wetlands. The Sustainable Development Goals place greater emphasis on wetland restoration and management particularly through promoting sustainable agriculture, sustainable management of water and sanitation, building sustainable cities, combating climate change, sustainable management, and conservation of life on land and life below water.

The International Convention of Wetlands, the Ramsar Convention, was signed in 1971 in Ramsar, Iran. It is the only global treaty which focuses on wetlands, providing the framework for the conservation and wise use of wetlands and their resources. Currently there are 171 contracting parties to the convention including Sri Lanka. It defines wetlands as, "Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters". Based on this definition, the wetlands of Sri Lanka can be divided into three broad categories as described in the

National Wetland Directory of Sri Lanka:

- Inland natural freshwater wetlands (e.g. rivers, streams, marshes, swamp forests, and villus)
- Marine and saltwater wetlands (e.g. lagoons, estuaries, mangroves, seagrass beds, and coral reefs)
- Man-made wetlands (e.g. tanks, reservoirs, rice fields, and salterns)

Among the large number of wetlands found in Sri Lanka, there are 6 RAMSAR Wetland sites namely Anavilundawa, Vankalei Sanctuary, Bundala, Kumana, Wilpattu Wetland Cluster, and Madu Ganga, which are of international significance. Most recently, Colombo comprising a set of urban wetlands was also accredited as a RAMSAR wetland. However, the majority of Sri Lankan wetlands have faced threats due to various anthropogenic activities. As identified by Kotagama and Bambaradeniya (2006), the most frequently reported threat is Siltation. Moreover, habitat deterioration/ degradation of wetlands has occurred due to water pollution, clearing of vegetation, sand mining, reclamation, and unplanned irrigation structures. Loss or exploitation of species is another problem caused by poaching, water pollution, and ornamental fish and plant trade activities. The spread of invasive alien species in natural wetland habitats as well as natural phenomena such as prolonged droughts, and increase in seawater temperature are among other significant threats.

The Fauna and Flora Protection Ordinance of 1937 ensures the conservation of wetland ecosystems while the ratification of the RAMSAR Convention by Sri Lanka

in 1990 directly highlights the country's commitment towards the protection of these ecosystems. The National Wetland Steering Committee (NWSC) was established in 1989 by the Central Environment Authority and was revived in 2003, with the aim of integrating plans for wetland areas and coordinating development and conservation activities in Wetlands. In 2006, the Ministry of Environment and Central Environmental Authority formulated the National Wetland Policy and Strategy for Sri Lanka with the objectives of protecting and conserving wetland ecosystems, preventing illegal utilization, maintaining the biological diversity and productivity, enhancing their ecosystem services, assuring sustainable use of wetlands and traditional practices by local communities; and meeting national commitments as a signatory to the Ramsar Convention on Wetlands. National Wetland Management Action Plan has also been initiated and the National Wetland Directory of Sri Lanka has been prepared by the Central Environmental Authority in collaboration with the World Conservation Union (IUCN) and the International Water Management Institute (IWMI) in 2006 to identify threats to Sri Lankan wetlands and to propose conservation measures. Furthermore, Central Environmental Authority and the Department of Wildlife Conservation carry out several wetland conservation and management projects commemorating the World Wetland Day on February 02nd each year.

The National Policy; 'Vistas of Prosperity and Splendor' has given significant consideration to the conservation of these sensitive ecosystems and their services. The National Budget of 2021 has also

allocated resources for projects such as Enhancing Biodiversity Conservation and Sustenance of Ecosystem services in Environmentally Sensitive Areas (ESAs). Recently, the Muthurajawela wetland area has been proposed to be upgraded to a National Park for conservation purposes.

As an island gifted with diverse wetland ecosystems, we, the citizens, have a duty to use these resources wisely and sustainably. As much for inland wetland systems, we must also care for the coastal wetlands. Coastal wetlands have the ability to reduce coastal erosion through retaining sediment and accumulating new sediment, whilst also providing storm protection in coastal zones.

Maintaining healthy and diverse wetlands, enormously contribute to the maintenance of the ecological balance of the environment. Therefore, Wetlands must be given special attention when carrying out development projects. Proper coordination has to be maintained among development planners, scientists, and policymakers to conserve these sensitive ecosystems. Furthermore, these sensitive wetland ecosystems have to be managed, ensuring the efficient use of their resources to achieve future sustenance.



Dilini Shashikala

BSc.(Sp) FEM

Sustainable Development Officer

SDCSL



“If you want to eliminate hunger, everybody has to be involved.”

- Bono

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- ජී.ඩී හසින් සඳුරුවන්

රටක ආහාර අවශ්‍යතාව වම රට විසින්ම නිපදවා ගන්නේ නම් ඕනෑම ව්‍යසනයකට හෝ ආපදාවකට මුහුණ දීමේ හැකියාව වම රට සතුවේ. අතර අතිතයේ සිටම විශේෂයෙන් වාරි තාක්ෂණයකින් හෙබි ස්වයංපෝෂිත දේශීය කෘෂි ආර්ථික ජීවන රටාවක් තුළ ගෙවුනු ශ්‍රී ලාංකීය ජන ජීවිතය ක්‍රමයෙන් විදේශීය කෘෂි නිෂ්පාදන මත යැපීම දක්වා පරිවර්තනය වී ඇති බව දැක ගත හැකිය. මෙම තත්ත්වය අප රටෙහි තිරසර කෘෂි ආර්ථිකය කෙරෙහි ප්‍රබල ලෙස බලපෑම් එල්ල කර ඇති බව ලොව පුරා පැතිරීගිය කෝවිඩ් 19 වෛරස ව්‍යාප්තිය සමඟ වඩාත් තහවුරු වී ඇත. විශේෂයෙන් රටට අත්‍යවශ්‍ය ආනයනික ආහාර සැපයුම් මාර්ග පවා අඩපණ වීමෙන් රටේ ජනතාවගේ දෛනික ආහාර පරිභෝජනයට අවශ්‍ය ආහාර පාන සපයා ගැනීමේ දුෂ්කරතා ද ඇතිවිය.

මේ ආකාරයට වර්තමානයේ ලෝකය මුහුණ දෙන හා අනාගතයේ දී මුහුණ දිය හැකි මෙවන් අභියෝග වලට සාර්ථකව මුහුණ දීම සඳහා එක්සත් ජාතීන්ගේ සංවිධානය විසින් වර්ෂ 2015 දී තිරසර සංවර්ධනය සඳහා වන 2030 න්‍යාය පත්‍රය ලෝකය හමුවේ තැබූ අතර ශ්‍රී ලංකාව ද එහි පාර්ශව රාජ්‍යයක් ලෙස කටයුතු කරමින් පවතී. 2030 න්‍යාය පත්‍රය මගින් වර්ෂ 2030 දී සපුරාගැනීම සඳහා තිරසර සංවර්ධන අරමුණු 17 ක් සහ ඊට සම්බන්ධ ඉලක්ක 169 ක් ප්‍රකාශිතය. ඒ අතරින් සාගිති නිමවා, ආහාර සුරක්ෂිතතාව හා ඉහළ පෝෂණ තත්ත්වයක් සාක්ෂාත් කර ගැනීම සහ තිරසර කෘෂිකර්මය ප්‍රවර්ධනය කිරීම සඳහා වූ ගෝලීය අරමුණ අන් කවරදාවත් වඩා සාකච්ඡාවට බඳුන් කළ යුතුව ඇත.

සාගිති හා මන්දපෝෂණයේ සියලුම ස්වරූපයන් වසර 2030 දී නිමා කිරීම මෙමගින් අපේක්ෂා කරයි. සෞඛ්‍ය ආරක්ෂිත, පෝෂණීය, ප්‍රමාණවත් ආහාර වසර මුළුල්ලේම සැපයීම සඳහා විශ්වීය ප්‍රවේශයක් වමගන් ඇති කෙරේ. තිරසර ආහාර නිෂ්පාදනය හා

කෘෂිකාර්මික භාවිතයන්, තිරසර නූම් පරිභෝජනය, තාක්ෂණය හා වෙළඳපොළ කෘෂිකාර්මික ඵලදායීතාව ඉහළ නැංවීම සඳහා අවශ්‍ය යටිතල පහසුකම් හා තාක්ෂණය වෙනුවෙන් ආයෝජනය කිරීම සඳහා ජාත්‍යන්තර සහයෝගීතාවන්ගේ අවශ්‍යතාව මෙමගින් වඩා පුළුල්ව අවධාරණය කර ඇත.

ඒ අනුව තිරසර සංවර්ධන අරමුණු ලඟා කර ගැනීමේ ප්‍රයත්නයේ දී රජය විසින් දියත් කරනු ලබන සමාජ සුබසාධන වැඩසටහන් වල ප්‍රතිපලයක් ලෙස 2020 ගෝලීය සාගිති දර්ශකය අනුව, ශ්‍රී ලංකාව රටවල් 117ක් අතරින් 66 වන ස්ථානයට පැමිණ වම දර්ශකයේ මධ්‍යස්ථ මට්ටමට ළඟා වීම ධනාත්මක වර්ධනයක් ලෙස පෙන්වුම් කළ හැක. ජාත්‍යන්තර ආහාර ප්‍රතිපත්ති පර්යේෂණ ආයතනය (IFPRI) විසින් වාර්ෂිකව නිකුත් කරනු ලබන මෙම දර්ශකය වම රටවල මන්දපෝෂණය, ළදරු මරණ අනුපාතය මෙන්ම දේශගුණ විපර්යාස සහ සාගිති අතර සම්බන්ධතාවය කෙරෙහිද මෙහිදී අවධානයට යොමු කරනු ලැබේ. ආන්තික කාලගුණයේ බලපෑම ආහාර නිෂ්පාදනයට හා ආහාර සුරක්ෂිතතාවයට බලපාන ආකාරය සැලකිල්ලට ගෙන ඇත.

වර්තමාන රජය විසින් ක්‍රියාත්මක කරන සෞභාගයේ ඉදිරි දැක්ම ප්‍රතිපත්ති ප්‍රකාශනයේ ජනතා කේන්ද්‍රීය ආර්ථිකය ශක්තිමත් කිරීමෙහි ලා කෘෂිකර්ම ක්ෂේත්‍රයට අදාලව තිරසර කෘෂිකාර්මික වැඩපිළිවෙළක් යටතේ සුරක්ෂිතතාවයෙන් හා පෝෂණීය මට්ටමින් ඉහළ, ගුණාත්මකතාවයෙන් උසස් ප්‍රමාණවත් ආහාර වසර පුරා ලබාගැනීමේ හැකියාව පුළුල් කිරීමට අපේක්ෂිතය. වමගන් රටක සීඝ්‍ර සංවර්ධන යාන්ත්‍රණය බලගැන්වීම සඳහා යහපත් සෞඛ්‍ය මට්ටමකින් හෙබි නිරෝගිමත් කාර්යක්ෂම ජනතාවක් සිටීමේ අවශ්‍යතාව පිළිබඳව අවධානය යොමුකොට ඇත. වම වැඩපිළිවෙළ යටතේ වසර 2025 දී අනෙකුත් ප්‍රධාන ආහාර නිෂ්පාදන ප්‍රමාණවත් වන ලෙස තිබීම

හා වසර 2030 වන විට රට සහලින් ස්වයංපෝෂිත කිරීමට ද බලාපොරොත්තු වේ. මේ සඳහා කෘෂි කාර්මික, ධීවර හා සේවා යන ක්ෂේත්‍ර ආවරණය වන පරිදි අපනයන නිෂ්පාදන ගම්මාන පිහිටුවීමටද අපේක්ෂිතය. එමෙන්ම ධීවර කර්මාන්තයේ ප්‍රගමනය කෙරෙහි ද වැඩි අවධානයක් යොමුකොට තිබීම විශේෂත්වයක් වන අතර ධීවර සංවර්ධන සැලසුම් හරහා මත්ස්‍ය නිෂ්පාදන වල ගුණාත්මකභාවය හා ධාරිතාවය ඉහල නැංවීමට අදාලව ධීවර ක්ෂේත්‍රයේ නියුතු ශ්‍රමිකයන්ගේ හා ක්ෂේත්‍රයට අදාල යටිතල පහසුකම් සංවර්ධන කිරීමට ද අපේක්ෂිතය.

මෙරට කෘෂිකාර්මික නිෂ්පාදන ධාරිතාව ඉහල නැංවීම සඳහා කෘෂිකාර්මික කටයුතු වල යෙදෙන දුෂ්කර ප්‍රදේශවල යටිතල පහසුකම් සංවර්ධන කිරීම, කෘෂිකාර්මික නව සොයාගැනීම් හා තාක්ෂණික සංවර්ධන වැඩපිලිවෙලවල් ක්‍රියාත්මක කිරීම මෙන්ම බීජ හා වගාකරන ලද ශාකවල, ගොවිපළ සහ ගෘහාශ්‍රිත සතුන්ගේ ජානමය විවිධත්වය පවත්වාගෙන යාම සඳහා පහසුකම් සැලසීම වැදගත් වේ. මේ සඳහා ආයෝජන අවස්ථා පුළුල් කිරීමට සහනදායී බැංකු ණය, අන්තර්ජාතික සහයෝගිතාවය හා පුද්ගලික අංශයේ මැදිහත් වීම වඩාත් ඵලදායී ලෙස යොදාගැනීම ඉතා වැදගත් වේ. එසේම ආහාර හා කෘෂිකාර්මික අංශවල ඵලදායීතාව ඉහළ නැංවීම සඳහා කෘෂිකාර්මික කටයුතු සඳහා උපයෝගී කරගන්නා ඉඩම්, ජලය, පොහොර, කෘෂි රසායනික ද්‍රව්‍ය, බලශක්තිය, මානව සම්පත්, ජාන සම්පත්, සාම්ප්‍රදායික දැනුම හා නව තාක්ෂණය වඩාත් කාර්යක්ෂමව මෙන්ම පරිසර හිතකාමීවද තිරසර ලෙස භාවිතා කිරීම කෙරෙහි අවධානය යොමුකල යුතුය.

කෝවිඩ් 19 වැනි ගෝලීය ව්‍යසනකාරී වාතාවරණයක් තුළ දේශීය කෘෂිකර්මාන්තය හා ආහාර නිෂ්පාදනය ශක්තිමත් කිරීමේ අවශ්‍යතාවය හා වැදගත්කම තේරුම්ගත් වර්තමාන රජය සෞභාග්‍යා ගෙවතු වගා සංග්‍රාමය නමින් ජාතික වැඩසටහනක් ආරම්භ කලහ. ඒ තුළින් තිරසර කෘෂිකාර්මික සංකල්ප හා කාබනික වගාව කෙරෙහි වැඩි අවධානයක් යොමුකරමින් සෞඛ්‍ය සම්පන්න ආහාර නිෂ්පාදන ක්‍රියාවලිය ඉහළ නැංවීමට පියවර ගෙන ඇත. මේ සඳහා ගෘහාශ්‍රිතව සෞභාග්‍ය ගෙවත්තක් නිර්මාණය කර ගැනීමට අවශ්‍ය

බීජ හා පැළ බෙදාහැරීමේ යාන්ත්‍රණයක්ද ක්‍රියාත්මක විය. එතුළින් ජනසමාජය තුළ විශේෂයෙන් දිළිඳුභාවය තුරන් කිරීම හා කුසගින්නෙන් තොරව පෝෂ්‍යදායී ආහාර වේලක් ලබාගැනීමේ හැකියාවක් ඇති ගෘහ ආර්ථික මට්ටමක් නිර්මාණය කිරීම හරහා හිරෝගී පරපුරක් ගොඩනැගීමට පෙළඹ වීමක් ඇති කෙරිණි.

නුගෝලීය වශයෙන් සර්මකලාපයට අයත් රටක් වූ ශ්‍රී ලංකාවට දේශගුණික විපර්යාසවල සෘජු හා වක්‍ර බලපෑම් වලට නිරන්තරයෙන් මුහුණ දීමට සිදුවේ. විශේෂයෙන් ගෝලීය උණුසුම ඉහළයාම හා වර්ෂාපතන රටාවන් වෙනස්වීම නිසා කෘෂිකාර්මික බෝගවල ඵලදාව අඩුවීමට ද හේතුවක් වී ඇත. එසේම විවිධාකාර පළිබෝධකයින්ගේ හානිකර බලපෑම් තුළින් ඵලදාව අඩුවන අතර ඒවා වළක්වා ගැනීමට දීර්ඝ කාලීනව යොදන කෘෂි රසායනික ද්‍රව්‍ය නිසා පස හිසරු වීමත් වගාවේ ආශ්‍රිත ජල ප්‍රවාහයන්ට වම අහිතකර රසායනික ද්‍රව්‍ය මිශ්‍ර වීමත් නිසා ජලය දූෂණය වීමක් සිදුවේ. ඒ හරහා ජෛව පද්ධතියට සිදුවන හානිය ද සුළුපටු නොවේ. මේ ආකාරයේ විකිනෙකට සම්බන්ධ වූ ගැටළු වලට සාර්ථකව පිලියම් යෙදීම ඉතා කාලෝචිත අවශ්‍යතාවයක් වන අතර දේශගුණික විපර්යාස වලට ඔරොත්තු දෙන උසස් ගුණාත්මකභාවයක් හා වැඩි අස්වැන්නක් ලබා දෙන බීජ මෙරට තුළම නිෂ්පාදනය කිරීමට කටයුතු කිරීම අවශ්‍යය. ඒ හරහා දේශීය ගුණාත්මක බීජ නිෂ්පාදන ප්‍රවලිත කරමින් ආනයනික වියදම් පාලනය කිරීම රටේ ආර්ථික යහපැවැත්මට ද වඩාත් හිතකර සාධකයක් වෙයි.

නිරන්තරයෙන් වෙනස්වන කාලගුණික තත්වයන් පිළිබඳ කලින් දැනුවත් වීම හා ඒ සඳහා ඉක්මනින් ප්‍රතිචාර දැක්වීම හා පිලියම් යෙදීම සඳහා ජාතික මට්ටමේ ශක්තිමත් ආයතනික ව්‍යුහයක් නිර්මාණය කල යුතු අතර එම තොරතුරු ග්‍රාමීය මට්ටමේ ගොවීන් වෙත හා ක්ෂේත්‍ර නිලධාරීන් වෙත කඩිනමින් සම්ප්‍රේෂණය කිරීම සඳහා වර්තමාන තොරතුරු තාක්ෂණයේ හා ජංගම දුරකථන ඇතුළු සන්නිවේදන ක්ෂේත්‍රයේ සිදු වී ඇති විප්ලවීය දියුණුවේ මහිමය ද උපකාරී කරගත හැක.

අනෙක් ප්‍රධාන ගැටලුව නිර්මාණය වී ඇත්තේ ගොවීන්ට සිය නිෂ්පාදන සාධාරණ මිලකට අලෙවි කර ගැනීම සඳහා විශාල තරගයකට මුහුණ දීමට

සිදුවීම හා හොඳ වෙළඳපොළක් වී සඳහා නොමැති වීමයි. විශේෂයෙන්ම කොරෝනා වසංගතයත් සමග නාගරික ජනාකීර්ණ ප්‍රදේශ සඳහා ආහාර හා කෘෂි නිෂ්පාදන ප්‍රවාහනය කිරීමේ දුෂ්කරතාවයන් මතු වීමත් සමග ගොවීන්ට සිය අස්වනු විකුණා ගැනීමේ උග්‍ර ගැටලු මතු විය. මෙම ගැටලුවලට විසඳුම් ලබාදීම සඳහා සුදුසු ඵලදායී තීරණ හා ක්‍රියාමාර්ග කඩිනමින් ක්‍රියාත්මක කිරීම ප්‍රමුඛ වේ. චිලවලු හා පළතුරු නිවැරදිව ඇසුරුම් කිරීම හා ප්‍රවාහනය කාර්යක්ෂමව සිදුකිරීම සඳහා අවශ්‍ය ක්‍රමවත් යාන්ත්‍රණයක් ලෙස වර්තමාන රජය විසින් දුම්රිය සේවාව යොදාගැනීම ද ඉතා කාලෝචිත පියවරක් ලෙස සඳහන් කල හැක. දිගුකාලීන සැලසුම් හරහා ශ්‍රී ලංකාව සාහිත්‍යෙන් තොර දේශීය කෘෂි ආර්ථිකය මත පදනම් වූ සමූහ සෞභාගමත් රටක් බවට පරිවර්තනය කිරීමේ තීරණ

සංවර්ධන ඉලක්ක ළඟා කර ගැනීමේ ක්‍රියාවලියේ දී ඊට අවශ්‍ය මගපෙන්වීම හා සම්බන්ධීකරණයන්ට දායක වීම සඳහා තීරණ සංවර්ධන සභාව කටයුතු කරනු ඇත. අප සියලු දෙනා පුරවැසියන් ලෙස වත්මන් රජයේ වැඩපිළිවෙල අනුව යමින් සිය සක්‍රීය හුම්කාව මනාව අවබෝධ කොටගෙන ස්වේච්ඡාවෙන්ම මේ වෙනුවෙන් ක්‍රියාකිරීම තුළින් වඩා යහපත් ජීවන වටපිටාවක් සහිත කෘෂි ආර්ථිකයෙන් ස්වයංපෝෂිත රටක් නිර්මාණය කිරීමට දායක වෙමු.



ජී.බී නසින් සඳුරුවන්

BSc. (Hons) Phy.Sci, MSc. (Anl.Chem)
 තීරණ සංවර්ධන නිලධාරී
 හි.සං.ස



“To restore stability to our planet, therefore, we must restore its biodiversity, the very thing we have removed. It is the only way out of this crisis that we ourselves have created. We must rewild the world!”

- David Attenborough

வலுவாதார அபிவிருத்தியில் கண்டல் சதுப்பு நிலங்கள்

- அபிராமி விமலாதித்தன்

வலுவாதார அபிவிருத்திக்கான உலகளாவிய 2030ஆம் ஆண்டு நிகழ்ச்சி நிரலானது, அபிவிருத்திச் செயன்முறையின் மத்தியில் மக்களை செயற்பட வைக்கின்றது. தற்போது உலகம் எதிர்நோக்கியுள்ள பல சவால்களை எதிர்கொள்வதற்காக ஐக்கிய நாடுகள் சபையானது (ருே), உலக நாடுகளை வலுவாதார அபிவிருத்தியை நோக்கி முன்னேற்றுவதற்கு முனைகின்றது. வலுவாதார அபிவிருத்தி என்பது எதிர்காலச் சந்ததியினரின் தேவைகளில் இடையூறை ஏற்படுத்தாத வகையில் தற்போதைய தேவைகளுக்கு இடமளிக்கும் அபிவிருத்தியாகும். பொருளாதாரம், சமூகம் மற்றும் சுற்றாடல் என்பவை வலுவாதார அபிவிருத்தியின் மூன்று தூண்களாக ஐக்கிய நாடுகள் சபையினால் இனங்காணப்பட்டுள்ளது.

அனைத்தையும் உள்ளடக்கிய செயன்முறை மூலம் தயாரிக்கப்பட்ட 2030 நிகழ்ச்சி நிரலானது 17 வலுவாதார அபிவிருத்தி இலக்குகள் (ளுனுபுள) மற்றும் 169 தொடர்புடைய அடைவுகளை உள்ளடக்கியுள்ளது.

எமது சமகால நிலைமைகளில் காலநிலை மாற்றம் என்பது நாம் எதிர்நோக்குகின்ற மிகப்பெரும் சவால்களில் ஒன்றாகும் இது இலக்கு 13இனால் உற்று நோக்கப்படுகின்றது. உலக வெப்பநிலை அதிகரிப்பு, கடல்

மட்ட உயர்வு, கடல் அமிலமயமாதல் மற்றும் பிற காலநிலை மாற்ற தாக்கங்கள் கடலோரப் பகுதிகளையும் தாழ்வான கடலோர நாடுகளையும் கடுமையாகப் பாதிக்கின்றன. காலநிலை மாற்றத்தால் அதிகம் பாதிக்கப்படக்கூடிய நாடுகளில் ஒன்றாக இலங்கையானது 2018ஆம் ஆண்டின் உலகளாவிய தரவரிசையில் 2வது மற்றும் 2019ஆம் ஆண்டில் 6வது இடத்தில் பட்டியலிடப்பட்டு காலநிலை அபாயக் குறியீட்டில் சுட்டிக்காட்டப்பட்டுள்ளது.

அண்மைக் காலங்களில் காலநிலையை அடிப்படையாகக் கொண்டு ஏற்பட்ட அனர்த்தங்கள் உட்பட நாட்டிற்கு முகங்கொடுக்க நேர்ந்த அதிகரித்துச் செல்லும் சுற்றாடல் சவால்களையும் கவனத்திற் கொள்ளும் போது, பாரிஸ் காலநிலை உடன்படிக்கை (யசளை ஊடகையவந யுபசநநஅநவெ) மற்றும் அனர்த்த முகாமைத்துவம் தொடர்பான சன்டாய் சட்டகம் (ளுநனெயை குசயஅநறழசம) உட்பட சுற்றாடல் மற்றும் அதனுடன் தொடர்புடைய சர்வதேச உடன்படிக்கைகள், ஒப்பந்தங்கள் என்பன வாயிலாக வலுவாதார அபிவிருத்திக்கான பூகோள ஊக்குவிப்புக்களை இலங்கை வெற்றி கொள்ள முயல்கின்றது.

உலகில் 120ற்கும் அதிகமான நாடுகளில் சதுப்பு நில கண்டல் தாவர பரம்பல்கள் காணப்படுகின்றன.

உலகில் 73 வகை கண்டல் தாவர இனங்கள் 152,000 சதுர கிலோமீட்டர் நிலப்பரப்பில் காணப்படுகின்றது. இவ்வகைக் கண்டல் தாவரங்கள் வெப்பவலய, இடைவெப்ப வலய, நாடுகளிலேயே பெருமளவில் காணப்படுகின்றது. கண்டல் சதுப்பு நில காடுகள் (அயபெசழளந) இலங்கையின் பெருமளவிலான கடனீரேரிகள், மற்றும் நதி முகத்துவாரங்கள் போன்ற பகுதிகளில் அதிகளவிலான கடலோர சூழ்நொகுதியை உருவாக்குகின்றன.

2011ல் இலங்கையில் கண்டல் தாவர வனங்கள் 16,037 ஹெக்டயர் காணப்படுகின்றது என இலங்கையின் வனப்பாதுகாப்பு திணைக்களம் தெரிவிக்கின்றது, இது மொத்த நிலப்பரப்பில் 0.24% ஆகும். இலங்கையில் 21 வகை கண்டல் தாவர இனங்கள் வடக்கு, கிழக்கு, தெற்கு, தென்மேல் மற்றும் வடமேற்கு மாகாண கடற்கரை ஓரங்களில் பரந்து காணப்படுகின்றன. இவை உவர் நீரில் மட்டுமன்றி நன்னீரிலும் வளரக்கூடிய இவ்வகைத் தாவரங்கள் சதுப்பு நிலங்களிலேயே வளர்கின்றன. மேலும் சதுப்பு நிலங்களின் பாதுகாப்பு தொடர்பான 'ரம்சார் கொள்கையானது' (சுயஅளயச ஊழ்ளெநவெழை) இலங்கையில் "ரம்சார்" சதுப்பு நிலங்களாக பிரகடனப்படுத்தப்பட்டுள்ள பிரதேசங்களாக, புந்தள வனம், மடு ஆறு பிரதேசம், குமண வனம், ஆனவிமுந்தாவ (சிலாபம்) பகுதி மற்றும் வங்காலை (மன்னார்) ஆகியவற்றை பிரகடனப்படுத்தியுள்ளது.

இச்சதுப்பு நில தாவரங்களானது சுற்றுச்சூழல் பாதுகாப்பிலும் முக்கிய இடத்தை வகிக்கின்றது. இவ்வகைத் தாவரங்களானது வளியிலுள்ள கார்பன்டைஓக்ஸைட்டை

உறுஞ்சுதல் மற்றும் பிரித்தெடுத்தல், வடிகட்டுவதன் ஊடாக கரையோர வளிமண்டலத்தை பாதுகாத்து அபாயகரமான காலநிலைமாற்ற அனர்த்தங்களின் தாக்கங்களைக் குறைக்கின்றதுடன் கரையோர மண்ணரிப்பினையும் தடுக்கின்றது. இச் சுற்றுச்சூழல் தொகுதி கடல் நீர் மற்றும் அலை நடவடிக்கைகளின் செல்வாக்கிற்கு அடிக்கடி உட்படுத்தப்படுகின்றமையால் பல்வகை உயிரினங்கள், தாவர இனங்கள் போன்ற உயிர்ப்பல்வகைமைகள் தங்கி வாழ்வதற்கு ஏற்ற இடமாக உருவாகின்றது. மேலும் சுற்றுலாத்துறைக்கு அதிகளவிலான பங்களிப்பை வழங்கி கரையோர மக்களுக்கு நிலையான வாழ்வாதாரங்களையும் இவை ஏற்படுத்திக் கொடுக்கின்றன.

அதிகளவிலான கழிவுகளை கொட்டுவதன் மூலம் இவ்வகை நிலங்கள் மாசடைவதுடன் விறகுத் தேவைக்காகவும் அழிக்கப்பட்டு வருகின்றன. திட்டமிடப்படாத நகரமயமாக்கல், சட்ட விரோத நில அத்துமீறல்கள், கட்டுமானத் திட்டங்கள், குடியிருப்புகள், குடியேற்றங்களுக்கான ஆக்கிரமிப்புக்கள், கழிவு நீர் கலப்பு, அந்நிய நுண்ணுயிர்கள் போன்ற நடவடிக்கைகள் மூலம் இக் கண்டல் சதுப்பு நிலங்கள் தமது சிறப்பு தன்மையை இழந்து அழிவை எதிர்நோக்கி வருகின்றன.

இலங்கையின் காலநிலை மாற்றத்தாக்கங்களைக் குறைவடைய செய்யவும் கடலோர சமூகங்களின் வலுவாதார வளர்ச்சிக்கு உதவவும் கண்டல் தாவரபரம்பலை பாதுகாப்பது மிகவும் அவசியம் ஆகின்றது. சதுப்புநில கண்டல் தாவர மீள்

நடுகைகளை ஊக்குவித்தல் மற்றும் கழிவு முகாமைத்துவம் என்பவை புதிய தாவரப்பரம்பலை அதிகரிக்க உறுதி செய்கின்றது. சதுப்பு நில கண்டல் தாவரங்கள் தொடர்பான முக்கியத்துவம் தொடர்பாக கல்வியறிவூட்டல், விழிப்புணர்வை ஏற்படுத்தல் மற்றும் செயல்திறன்மிக்க திட்டமிடல் மற்றும் நிர்வாகத்திற்கான, பெண்கள், இளைஞர்கள் சமூகங்களை மையமாகக் கொண்ட, காலநிலை நடவடிக்கைகளின் திறனை உயர்த்துவதற்கான வழிமுறைகளை ஊக்குவித்தல் போன்றவை இலக்கு 13 இனை அடைவதற்கு வழிகோலும்.

மேலும் 2030 க்குள் அதிக முன்னுரிமையாக தீவிர வறுமையை ஒழித்தல் மற்றும் அனைத்து வகையான வறுமையையும் குறைக்கும் இலக்குகளுடன் கூடிய மேம்பாட்டுத் திட்டங்கள் கரையோர மக்களது வாழ்வாதார நடவடிக்கைகளுக்கு வலுச்சேர்ப்பதன் மூலம் இலக்கு ஒன்றினை அடைவதற்கு மிகவும் உறுதுணையாக இருக்கும். காலநிலை தொடர்பான தீவிர நிகழ்வுகள் உட்பட பேரழிவுகளால் பாதிக்கப்படக் கூடிய கரையோர ஏழை சமூகங்களிடையே, பொருளாதார, சமூக மற்றும் சுற்றுச்சூழல் பாதிப்புக்கள் உள்ளடங்கலாக உறுதியான அம்சங்களை கட்டமைக்க இது உதவும்.

இலங்கை மத்திய வங்கியின் 2019ம் வருட ஆண்டறிக்கைக்கு அமைய இலங்கையின் பொருளாதார வளர்ச்சியானது, தனிநபர் வருமானமாக 2018ல் 4,079 அமெரிக்க டொலர் உயர்மட்ட நடுத்தர வருமான நிலையை அடைந்து, முழுமையான வறுமையை நாட்டிலிருந்து

முற்றாக ஒழிப்பதற்கு உதவியது. இலங்கையில் வறுமைக் கோட்டின் கீழ் வாழ்பவர்களின் எண்ணிக்கை 4மு வரை குறைந்திருப்பதாக தொகை மதிப்பீட்டு புள்ளிவிபரவியல் திணைக்களம் அறிவித்துள்ளது. கடந்த வருடங்களில் வறுமைப்பட்டவர்களின் எண்ணிக்கை (மூன்றாவது அந்நிய உழுவெ னைநெடு) விகிதம் படிப்படியாக குறைந்து ஏராளமான மக்கள் வறுமைக் கோட்டுக்கு மேலே வாழ்வதை நிஷ்ரூபணமாக்கியுள்ள போதிலும், நாட்டில் குறிப்பிடத்தக்க வறுமை காணப்படும் பகுதிகள் இன்னும் உள்ளன.

மேலும் 2020ல் புதிய நெருக்கடியாக உருவெடுத்த கொவிட் தொற்றுக்களால் சிறியளவில் வளர்ச்சியை எதிர்நோக்கிய சுற்றுலாத்துறையானது மீண்டும் பாரியதொரு நெருக்கடியை எதிர்கொண்டுள்ளது. கண்டல் தாவர சதுப்பு நிலங்களானது அதிகளவிலான வெளிநாட்டவர்களை கவரகின்றமையினால் சிறப்பானதொரு சுற்றுலாத்துறை சார் கொள்கை திட்டமிடலுக்கு வழிகோலுகின்றது. பல்வேறு சட்ட திட்டங்கள், அரசு நிறுவனங்களின் பங்களிப்பு போன்றவற்றால் கண்டல் தாவர நிலம் சார் பொருளாதார வளர்ச்சி மற்றும் பாதுகாப்பிற்கு நியாயமான, சமமான, அனைத்தையும் உள்ளடக்கிய மற்றும் நிலையான ஒரு அணுகுமுறையை மேற்கொள்வதை உறுதி செய்வதன் மூலம், எமது மக்கள் மற்றும் எதிர்கால தலைமுறையினரின் நலனுக்காக வலுவாதார அபிவிருத்தியை நோக்கிய அதிக நன்மைகளைப் பெற முடியும்.

நிலைபேறான பொருளாதார அபிவிருத்தியானது, அனைவருக்குமான சுகாதாரவசதிகள் மற்றும் கல்வி,

அனைவரையும் உள்ளடக்கிய சமத்துவமான அபிவிருத்தி கொள்கைகள், நிலைபேறான விவசாய திட்டங்களை முன்னிறுத்துவதன் மூலமாக பசியை ஒழித்து, உணவுப் பாதுகாப்பு மற்றும் ஊட்டச்சத்தினை மேம்படுத்தல், பால்நிலை சமத்துவத்தை அடைதல், நிலைபேறான நவீன சக்தியினை உறுதி செய்தல், கௌரவமான அனைவரையும் உள்ளடக்கிய வேலைவாய்ப்பு வசதிகளையும் நிலைபேறான நகரங்களையும் அமைத்தல், கடல்கள் மற்றும் கடல்சார் வளங்களையும் சூழலியலையும் பாதுகாத்தல் போன்ற ஞானபுக்களின் குறிக்கோள்களுக்கு முக்கியத்துவம் அளிப்பதன் மூலமாக இலங்கையை வலுவாதார அபிவிருத்தியுடனான ஒரு நாடாக உருவாக்கலாம்.

வலுவாதார கொள்கை இலக்குகள் மற்றும் உத்திகள் பிற தேசிய கொள்கைகளுடன் ஒத்துப்போவதோடு, இலங்கை அரசாங்கத்தின் எமது நாட்டை வலுவாதார அபிவிருத்தியின் முன்மாதிரியாக மாற்றுவதற்கான பொறுப்பை நிறைவேற்றுவதற்கும் துணைபுரிவதோடு, அதிமேதகு ஜனாதிபதியின் நாட்டைக் கட்டியெழுப்பும் சுபீட்சத்தின் முன்னோக்கு கொள்கை அறிக்கையிலும் இவை வலியுறுத்தப்பட்டுள்ளன.



அபிராமி விமலாதித்தன்

BSc.(Hons) T&CP, MEM
வலுவாதார அபிவிருத்தி உத்தியோகத்தர்
SDCSL

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- vii) Knowledge Hubs link with existing networks of community farmers who focus on three activities, to: share farming information such as mixed cropping, to share planting materials, and to work together as a group to establish their demonstration plot to trial sustainable or climate resilient farming systems.

- viii) http://www.pacific.undp.org/content/dam/rbap/docs/Research%20%26%20Publications/CPR/PC_FF_KnowledgeHubs.pdf

- xi) wee.oxfam.org
- x) The GEM toolkit is made available primarily to support Oxfam and partners in-country to design robust market-based livelihoods projects and programmes. It hosts a selection of tools that bring together good practice guidance on how to collect analyses and integrate information applying Oxfam's Gendered Enterprise and Markets (GEM) approach.

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The Sustainable Development
Council Sri Lanka

INSIGHT

5th Floor, 1090 Sri Jayawardenepura
Mawatha, Sri Jayawardenepura Kotte

+94 11 360 7295 ? +94 11 288 5164

info@sdcs.gov.lk

www.sdc.gov.lk

