

SECTION 1

**GAMUDA PARKS
POLICY**



1.0 FOREWORD

- 1.1 “*Listening to what the land has to tell us*” and living in harmony with nature is what defines Gamuda Land property developments. To this end, the company is committed towards providing an environment that is well-planned, clean, safe and rich in biodiversity to its communities.
- 1.2 As a responsible town-maker, Gamuda Land understands the risks associated with development in the context of environmental impacts including the loss of biodiversity and natural habitat as well as social impacts.
- 1.3 Gamuda Parks dedicates this initiative towards the betterment of biodiversity with an understanding that biodiversity performs ecosystem services that are crucial to human well-being both in short term and long term. It acts as an indicator that define the health of an ecosystem because the more biodiverse the ecosystem, the healthier the environment is for community to inhabit. “
- 1.4 Comprising experts who bring together extensive experience in their respective fields of specialisation, Gamuda Parks strives to create a close-knit community living environment integrated with nature that is safe, controlled from environmental pollutants and aesthetically enhanced with urban green spaces.

2.0 PURPOSE

- 2.1 This Policy commits to the promotion and conservation of ecosystem biodiversity via its integration into development in a sustainable manner whilst allowing balanced co-existence between the human and natural environments.
- 2.2 The elements of the Policy are aligned with Gamuda Land's brand value which is "*Respecting nature and environment*" and the company's development principle of "*Listening to what the land has to tell us*" and seeks to facilitate the realisation of Gamuda Land's commitment.
- 2.3 The purpose of this Policy is to establish the objectives for the conservation of biodiversity and management of ecosystems within Gamuda Land's property development projects for the benefit of the community and the environment
- 2.4 This Policy serves to:
 - a) Support and provide direction for planning, decision-making, operational and maintenance activities.
 - b) Ensure that the executed activities of Gamuda Parks are strategic, focused and results-oriented biodiversity management programmes that will achieve sustainable biodiversity in Gamuda Land property development.
 - c) Catalyze shifts needed to align the activities with national and international agenda by applying scientific and research-motivated approaches to support biodiversity conservation for sustainable future.
 - d) Serve as a guideline for the development of strategic documents pertaining to biodiversity conservation and protection. The strategic documents include, but are not limited to Gamuda Parks's and Gamuda Land's relevant policies, strategies, plans, guidelines and manuals.

3.0 PRINCIPLES UNDERPINNING THE POLICY

3.1 GAMUDA PARKS VISION STATEMENT

Creating sustainable places with the wellbeing of the community in mind, for people to call home, want to be a part of, grow up and grow old in.

3.2 GAMUDA PARKS MISSION STATEMENT

The consolidation of these efforts; bringing together the design process, biodiversity enrichment, land conservation, township management and education is to meet the needs of the future in a holistic, forward-looking and complete manner. This parallels our brand value of respecting nature and the environment.

4.0 OBJECTIVES

4.1 In achieving the Vision and Mission Statements, this Policy serves to conserve and integrate biodiversity into Gamuda Land's development projects and is focused on six key objectives:

- a) To improve liveability within Gamuda Land property development;
- b) To safeguard community well-being both at present and in the future through ecosystem services;
- c) To permit for long-term positive changes in climate that affect the viability of ecosystem which influence the distribution of flora and fauna as well as improve condition of residential areas;
- d) To improve biodiversity quality that acts as a foundation for human health in terms of food security and recreational benefits;
- e) To apply science, technology, and knowledge building to enhance biodiversity conservation practice; and
- f) To build partnerships in support of biodiversity conservation.

5.0 DEFINITION

“Biodiversity”:	Also known as biological diversity. The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.
“Built Environment”:	Human-made space in which people live, work, and recreate on a day-to-day basis.
“Community well-being”:	Community well-being is the combination of healthy social, economic, environmental and cultural conditions that are essential for a community to nurture and fulfil their potential.
“Conservation”:	The management of human use of the biosphere so that it may yield the greatest sustainable benefit to current generations while maintaining its potential to meet the needs and aspirations of future generations: Thus conservation is positive, embracing preservation, maintenance, sustainable utilisation, restoration, and enhancement of the natural environment.
“Ecosystem”:	A dynamic complex of plant, animal, fungal, and micro-organism communities and their associated non-living environment interacting as an ecological unit.
“Endemic”:	Native species (flora or fauna) and restricted to a specified area
“Property Development”:	Townships and high-rise development projects
“Gamuda Land”:	The property development arm of Gamuda Berhad
“Native species”:	Also known as indigenous species. Plants, animals, fungi and micro-organisms that occur naturally in a specified area.
“Invasive Species”:	A species that is not native to a specific location (an introduced species), and that has a tendency to spread to a degree believed to cause damage to the environment, human economy or human health.
“Urban Green Spaces”:	Urban green spaces refer to public and private open spaces in urban areas, primarily covered by vegetation, which are directly (e.g. active or passive recreation) or indirectly (e.g. positive influence on the urban environment) available for the users. Also includes small water bodies such as ponds, lakes and streams.

6.0 APPLICATION AND SCOPE

- 6.1 The Biodiversity Policy is intended to apply to all Gamuda Land property development in Malaysia as well as in countries outside of Malaysia where Gamuda Land operates¹.
- 6.2 The Policy shall be read together with, Gamuda Park's other relevant strategies and practices. In the event there are inconsistencies, the Policy shall supersede.
- 6.3 If any law or regulation in the areas which Gamuda Land property developments operate conflicts with this Policy, Gamuda Parks shall comply with the respective law.

7.0 ADMINISTRATION OF THE POLICY

- 7.1 This Policy is approved and adopted by Gamuda Land including any amendments thereto.
- 7.2 Gamuda Parks is the owner of this Policy and is responsible to ensure that the Policy is reviewed and updated periodically every once in three years to ensure it is relevant for its purpose. This is to ensure that the requirements of new applicable legislation or code of practice or guidelines are considered, and the Policy revised accordingly.
- 7.3 Design and Research Department² under Gamuda Land, as the custodian of this Policy, shall be responsible for the dissemination of the Policy and to ensure that the Policy is made accessible to Directors, Senior Management and employees within Gamuda Parks via suitable channels of communication.

¹ In countries outside of Malaysia, adherence to the Policy shall be in so far as that it is applicable and relevant as well as in compliance with prevailing laws and regulations of the said countries.

² Refer page 28

8.0 ALIGNMENT OF THE POLICY WITH THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

8.1 The Government of Malaysia has affirmed and adopted the United Nation's 2030 Agenda for Sustainable Development that identifies 17 Sustainable Development Goals* (SDGs) that form the foundation of this Agenda.



Figure 8.1: List of United Nations Sustainable Development Goals

8.2 Biodiversity features prominently across many of SDGs and plays a role in realising the goals and development priorities. This Policy supports in fulfilling nine out of the 17 SDGs.



8.3 UN SUSTAINABLE DEVELOPMENT GOAL 3



ENSURE HEALTHY LIFE AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

There is a strong link between biodiversity and human health. Biodiversity supports the function of ecosystems by mitigating the impacts arising from land development activities such as reduced air quality, water and soil pollution by sequestering and eliminating the agents of pollution, as well as assisting pollination and regulating the proliferation of pests and diseases. This ensures a healthy environment for the community that resides within Gamuda Land's townships. A healthy ecosystem is crucial to ensure that pollution generated from land disturbance activities is mitigated by. SDG 3 is aligned with Gamuda Park's vision to create a '*healthy and sustainable living environment*'.

8.4 UN SUSTAINABLE DEVELOPMENT GOAL 4



PROMOTE LIFELONG LEARNING FOR ALL AT ALL AGES

Raising awareness on the importance of biodiversity via various communication channels and knowledge enrichment tools is a key element in ensuring sustainable biodiversity. Gamuda Parks is committed to ensure biodiversity awareness reaches its stakeholders especially the communities by organizing outreach and awareness programmes such as talks by experts, interactive engagement sessions with communities, among others. By taking part in these programmes, the stakeholders benefit from the knowledge and will enjoy a biodiversity-rich and sustainable lifestyle.

8.5 UN SUSTAINABLE DEVELOPMENT GOAL 6



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER

Biodiversity and healthy ecosystems protect the water quality of our ponds, drainage systems and other waterways/channels within our development areas by reducing the rate of runoff, minimise erosion, reduce the transport of silt and sediment in downstream areas and guard against hazards such as slope failures and other forms of geohazards. Ecosystem based approaches also limit nutrient losses to surface water and groundwater, thereby preventing eutrophication and algal blooms in our waterways.

8.6 UN SUSTAINABLE DEVELOPMENT GOAL 9



BUILD RESILIENT INFRASTRUCTURE AND FACILITIES

Urban green spaces and green or natural infrastructure (vegetation) which are subsets of biodiversity help in absorbing surface run-off water and provide resilience against storms and erosion. Urban green belts and vegetation impede the flow of surface runoff and mitigate against localised flooding and erosion. Urban green spaces can also be utilised for the purposes of resource conservation and waste minimisation. To this end, as one of Gamuda Park's initiatives under the Brown Initiative (Material & Resource), composting facilities are placed at strategic locations to encourage residents to practice recycling as part of their daily routine.

8.7 UN SUSTAINABLE DEVELOPMENT GOAL 11



MAKE CITIES AND HUMAN SETTLEMENT INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Urban planning that integrates elements of biodiversity, not only protects biodiversity but also improves the liveability of human settlements. Nature-based solutions to the challenges of urbanization, such as ecosystem-based approaches to climate change adaptation promote sustainability communities. The planting of trees along strategic locations and within the built environment promotes oxygen circulation, ventilation and reduces the ambient temperature. Further Gamuda Parks also provides safe paths and park furniture for the community thereby ensuring that even those with special needs such as mothers, children, elderly people and person with disabilities.

8.8 UN SUSTAINABLE DEVELOPMENT GOAL 12



ENSURE RESPONSIBLE CONSUMPTION AND PRODUCTION PATTERNS

Current consumption and production pattern are increasing significantly. Resources are replenished at a slower rate compared to its rate of being consumed. Utilizing more resource-efficient alternatives within the Gamuda Land development will reduce the material footprint and waste, gain economic advantage and prevent the use of virgin resources. Gamuda Park is committed to ensure minimal use of new materials and continuously seek for alternative resources wherever available.

8.9 UN SUSTAINABLE DEVELOPMENT GOAL 13



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

According to Millennium Ecosystem Assessment, climate change is expected to contribute to significant biodiversity loss in the near future. To combat climate change, more efforts are needed to protect and restore biodiversity. Gamuda Land is committed to maintain and enhance the vegetation communities across our development areas by providing greenery in urban settings as a medium for carbon offset or sequestration.

Biodiversity and ecosystems such as forests and wetlands represent carbon stores. Their conservation, restoration and sustainable use mitigate against climate change and protection from extreme climate and weather including heavy rainfalls, prolonged dry periods, storms, and weather phenomenon.

8.10 UN SUSTAINABLE DEVELOPMENT GOAL 14



CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

The conservation of the aquatic biodiversity in ponds and water bodies within townships is necessary for the achievement sustainable cities. Efficient management of freshwater ecosystems will reduce potential negative impacts on the downstream river systems and water resources.

8.11 UN SUSTAINABLE DEVELOPMENT GOAL 15



PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS COMBAT DESERTIFICATION, HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

Conservation, restoration and sustainable use of terrestrial and aquatic habitats is necessary for sustainable development and for the achievement of SDG 15. One of the targets of this goal is for the integration of ecosystem and biodiversity values into development planning. Gamuda Parks is committed to minimise the degradation of natural habitats whilst at the same time protect and conserve the native species, and prevent the proliferation of invasive species that may negatively alter the balance of the prevailing ecosystem.

9.0 ALIGNMENT OF THE POLICY WITH THE NATIONAL POLICY ON BIOLOGICAL DIVERSITY 2016-2025

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This National Policy for Biological Diversity has been established in line with the relevant elements of the National Policy on Biological Diversity 2016-2025 (NPBD). The NPBD was established to provide direction and framework for the nation to conserve our biodiversity and ensure use of biodiversity is managed sustainably in response of increasing urban developments throughout Malaysia.

The NPBD statement “*Malaysia is committed to conserve its biological diversity, promote its sustainable use and ensure the fair and equitable sharing of benefits arising from the utilization of biological resources*” is the foundation upon which five overarching goals were promulgated. Gamuda Parks Policy fulfills four out of the five goals of the Policy (Figure 4.1)

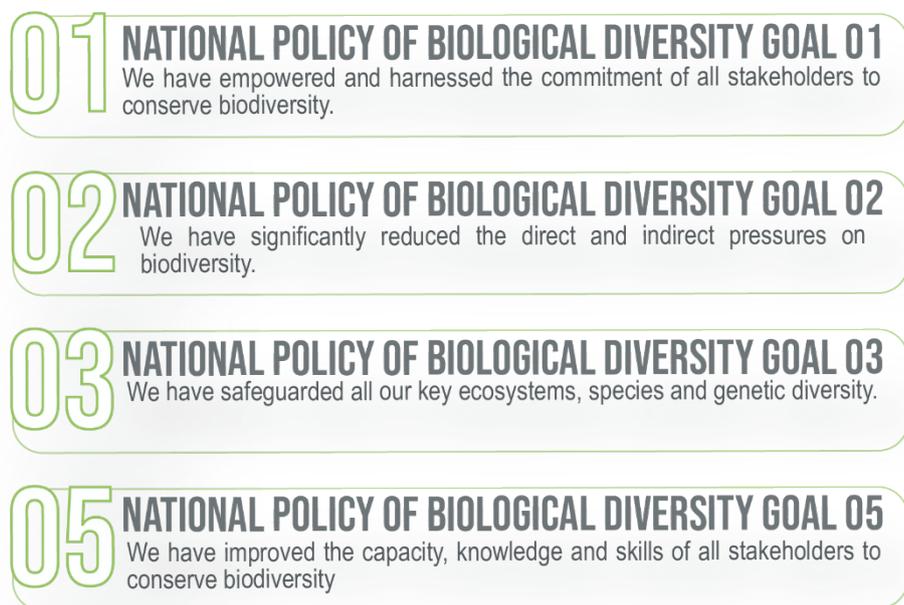


Figure 9.1: Four of of five National Policy on Biological Diversity relatable to Gamuda Parks Policy

9.1 NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 1

“WE HAVE EMPOWERED AND HARNESSSED THE COMMITMENT OF ALL STAKEHOLDERS TO CONSERVE BIODIVERSITY”

This goal seeks to encourage and empower all stakeholders to conserve our biodiversity. These stakeholders ranging from Federal and State governments, civil society, local communities and private sectors, who need to work hand in hand to conserve biodiversity. Gamuda Parks as a team under Gamuda Land is committed to implementing efforts to improve biodiversity values within Gamuda Land development projects and building biodiversity awareness of its stakeholders.

9.2 NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 2

“WE HAVE SIGNIFICANTLY REDUCED THE DIRECT AND INDIRECT PRESSURES ON BIODIVERSITY”

This goal aims to ensure that all sectors of the economy are planned and managed in a manner that does not impose pressures on our biological resources. Malaysia as a developing country encounters challenges in managing biodiversity whereas at the same time development and industrialisation are required to move towards developed country status. Therefore, all sectors are responsible to manage extraction of raw materials and water resource, prevent pollution in water bodies, on land and air. Gamuda Parks strives towards monitoring and addressing environmental impacts from Gamuda Land development projects, improving water quality and enhancing water resource management.

9.3 NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 3

“WE HAVE SAFEGUARDED ALL OUR KEY ECOSYSTEMS, SPECIES AND GENETIC DIVERSITY”

This goal aims to ensure the resilience of our key ecosystems, species and genetic diversity and that they are managed in an effective and integrated manner. The goal will ultimately conserve areas of natural habitat and protect both flora and fauna species from extinction. Gamuda Parks is committed to enhance aquatic biodiversity, and conserve native and threatened species within Gamuda Land development projects.

9.4 NATIONAL POLICY ON BIOLOGICAL DIVERSITY GOAL 5

“WE HAVE IMPROVED THE CAPACITY, KNOWLEDGE AND SKILL OF ALL STAKEHOLDERS TO CONSERVE BIODIVERSITY”

This goal ensures that all stakeholders have adequate capabilities, knowledge, access to information, tools, and networks to effectively plan, manage and monitor biodiversity conservation. In order to gain capacity, knowledge and skills on biodiversity conservation, government, private sectors and academia are expected to conduct relevant research, whereas local communities and civil society have access to appropriate support system including funding support. Gamuda Parks strives towards building awareness of its stakeholders, as part of its efforts to develop knowledge on biodiversity conservation.

10.0 COMPLIANCE TO LOCAL AND INTERNATIONAL REGULATORY FRAMEWORK

- 10.1 This policy adheres to respective local and international regulatory frameworks including convention and treaties, in the areas which gamuda land property developments are located.

11.0 BIODIVERSITY POLICY STATEMENT!

- 11.1 The Policy consists of three thrusts encompassing the management of the Green (softscape), Blue (waterscape) and Brown (material and natural resources) ecosystems as illustrated in **Figure 11.1**.

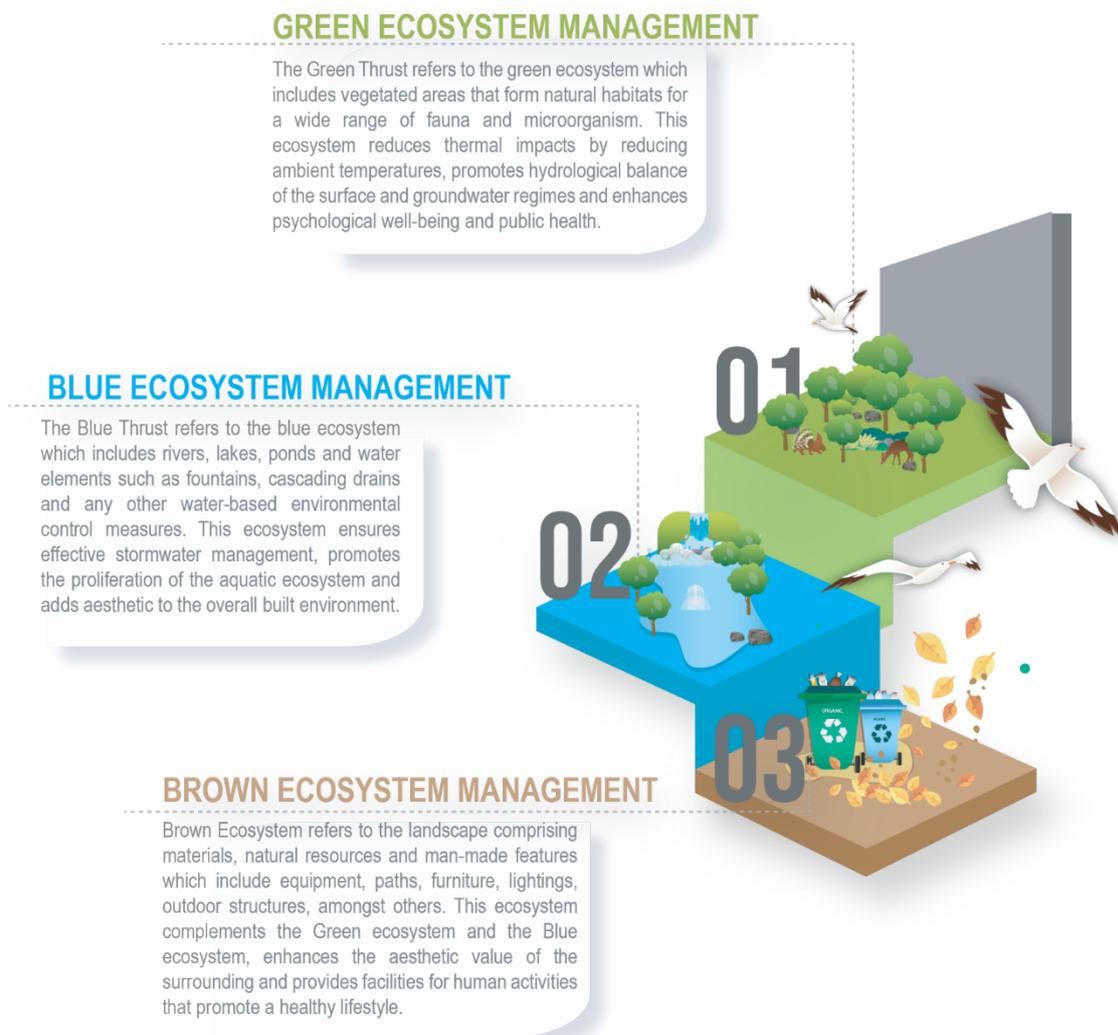


Figure 11.1: Gamuda Parks Biodiversity Policy Comprises Of Green Thrust, Blue Thrust And Brown Thrust

11.2 GREEN ECOSYSTEM

Green ecosystem refers to vegetated areas that form natural habitats for a wide range of macrofauna and microfauna. This ecosystem reduces thermal impacts by reducing ambient temperatures, promotes hydrological balance of the surface and groundwater regimes and enhances psychological well-being and public health.

11.2.1 The objectives of the Green Ecosystem policy thrust includes the:

- a)! Use of biodiversity for the minimisation of environmental pollution
- b)! Conservation of the biodiversity of local flora and fauna species
- c)! Conservation of tree species that have a historical value or of part of the natural heritage
- d)! Organisation of community programmes that educate and create awareness amongst the resident community on the role of biodiversity integration within the human living environment
- e)! Creation of urban green spaces that benefit both the environment and the community
- f)! Compliance to prevailing laws and regulations governing the protection of biodiversity and the environment in terms of water quality, air quality and soil and groundwater quality.

11.3 BLUE ECOSYSTEM

Blue ecosystem refers to water bodies which include rivers, lakes, ponds and water elements such as fountains, cascading drains and any other water-based environmental control measures. This ecosystem ensures effective stormwater management, promotes the proliferation of the aquatic ecosystem and adds aesthetic to the overall built environment.

11.3.1 The objectives of the Blue Ecosystem policy thrust includes the:

- a)! Use of natural and man-made water bodies (retention ponds, swales, stormwater drainage channels) for the minimisation of environmental pollution and improved water quality
- b)! Conservation of the biodiversity of aquatic flora species
- c)! Conservation of aquatic flora that have a historical value or of part of the natural heritage
- d)! Organisation of community programmes that educate and create awareness amongst the resident community on the role of aquatic biodiversity integration within the human living environment
- e)! Creation of water-theme components that benefit both the environment and the community
- f)! Compliance to prevailing laws and regulations governing the protection of aquatic biodiversity and the environment in terms of water quality, air quality and soil and groundwater quality
- g)! Identification, protection and rehabilitation of key habitats or vulnerable ecosystem.

11.4 BROWN ECOSYSTEM

Brown ecosystem refers to the hardscape comprising materials, natural resources and man-made features which include soil, equipments, paths, furniture, lightings, outdoor structures, among others. This ecosystem complements the Green Ecosystem and the Blue Ecosystem, ensure responsible and sustainable material and resources, enhances the aesthetic value of the surrounding and provides facilities for human activities that promote a healthy lifestyle.

11.4.1 The objectives of the Brown Ecosystem policy thrust includes the:

- a) Implementation of material and resources conservation initiatives (6R initiative) to minimise the generation of waste
- b) Design and development of hardscapes that compliment and protect the biodiversity management initiatives under the softscape (Green Ecosystem) and waterscape (Blue Ecosystem)
- c) Creation of an environment that improves the aesthetic value of the urban green spaces
- d) Promotion of a healthy lifestyle for the resident community
- e) Organisation of community programmes that educate and create awareness amongst the resident community on the role of biodiversity integration within the human living environment
- f) Compliance to prevailing laws and regulations governing the waste management and materials management