SDG 7 Localisation Snapshot

ISKANDAR, Malaysia

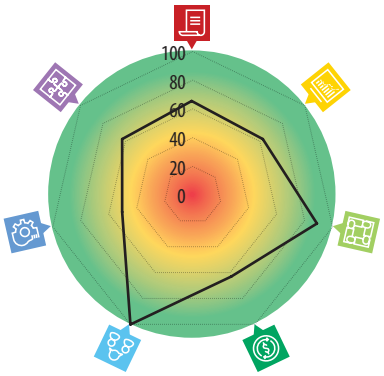
SDG7 Localisation Snapshot provides a brief overview of the key areas related to implementation of the Sustainable Goal 7 (SDG7) to 'Ensure access to affordable, reliable, sustainable and modern energy for all' at the local level based on the answers provided by the jurisdiction to the SDG7 Localisation questionnaire.

Questionnaire allowed to collect the assessments from the local officials regarding the situation on the implementation of SDG7 in their jurisdiction. SDG7 Localisation Snapshot is a part of the collaborative project of United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and United Nations Environment Programme (UNEP) to support city and sub-national governments in accelerating their efforts in the field of sustainable energy.

General information

Name of the jurisdiction	ISKANDAR
Country of the jurisdiction	Malaysia
Population of the jurisdiction	2.0 million people
Area of the jurisdiction (in km²)	2,217
Predominant climate	Tropical with high humidity

SDG7 Localization score



Score

0–33 34–66 67–100

Scores for each SDG7 Localisation indicator are calculated between 0 and 100 to show the assessment of the status in the jurisdiction in each of the respective areas.

Indicators score

66	63	89	62	100	50	63
Available policies and institutions for SDG localization	**Energy data monitoring**	**Cooperation with national and international stakeholders**	**Use of financial resources**	**Awareness raising and capacity- building**	**Implementation**	**Linkages to other SDGs**
Availability of specific policies and institutions focused on supporting the SDG 7 implementation.	Accessibility and penetration of energy monitoring and smart metering.	Efficient communication and collaboration between local stakeholders and various stakeholder groups at the national and international levels.	Availability of various financial resources and instruments for supporting SDG 7 implementation actions.	Availability of policies or actions to increase the understanding among citizens and build the capacity of professionals for SDG 7 implementation.	Presence of policies and actions to implement SDG 7 targets.	Availability of policies or actions with linkages between SDG 7 and other SDGs.

Sub-indicator score

62 Energy access	54 Renewable energy	35 Energy efficiency
Policies or actions taken by cities on energy access.	Policies or actions taken by cities on renewable energy.	Policies or actions taken by cities on energy efficiency.

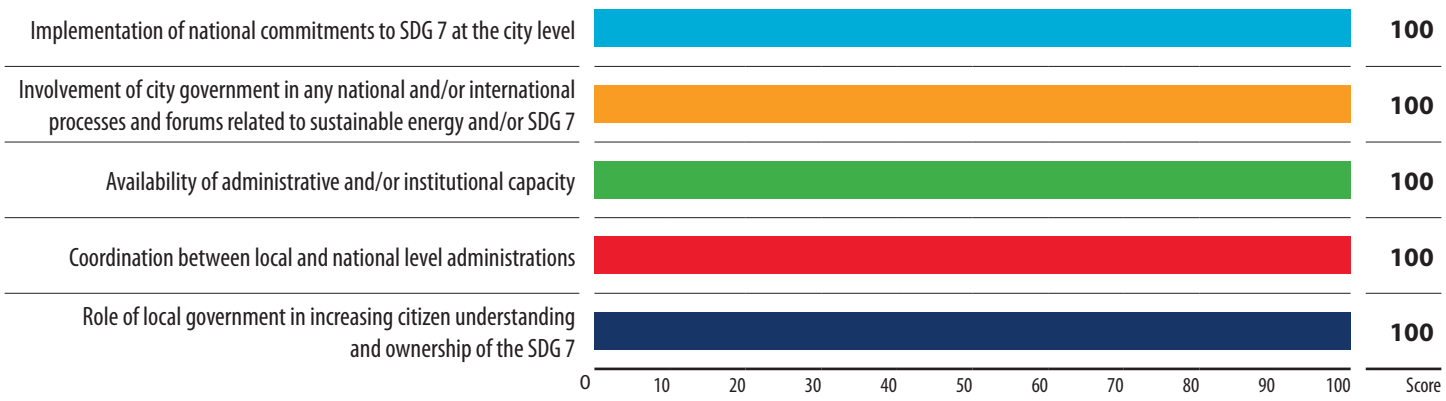
Sub-indicator score

67 SDG3. Good health and well-being.	75 SDG6. Clean water and sanitation.	71 SDG11. Sustainable cities and communities.	33 SDG12. Responsible production and consumption.	67 SDG13. Climate action.
The presence of energy-related activities or measures that support the health sector.	The presence of energy-related activities or measures that support water and sanitation.	The presence of energy-related activities or measures that support development of sustainable cities and communities.	The presence of energy-related activities or measures that support responsible production and consumption.	The presence of energy-related activities or measures that support climate action.

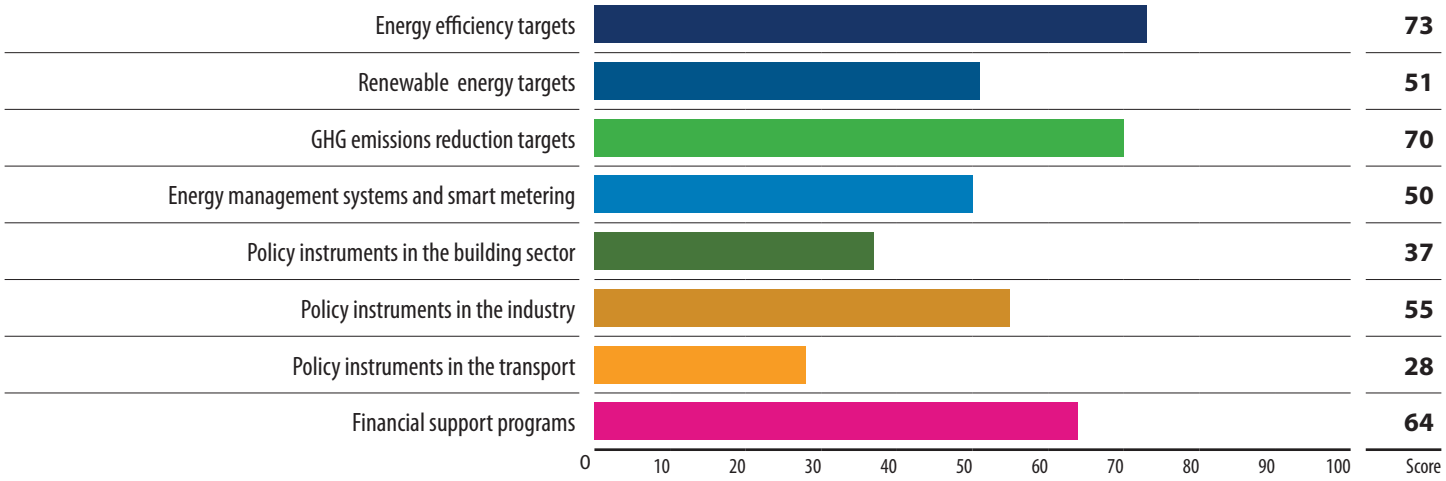
It is important to note that these indicators are qualitative and should not be used for assessing cities' achievement of quantitative targets under the SDG 7. The results for these qualitative indicators are based on cities' self-assessment of their current conditions, efforts, resources and capacity in relation to supporting SDG 7 localization process and can serve the role of the evidence base for constructing recommendations tailored to the local context, as well as the baseline results for tracking cities' progress of their SDG 7 localization efforts.

The results for each indicator are presented as a nominal score from 0 to 100 (where 100 is the maximum possible score, that can be achieved for each indicator or sub-indicator based on the aggregation of all answers of the questionnaire attributed to this particular indicator or sub-indicator).

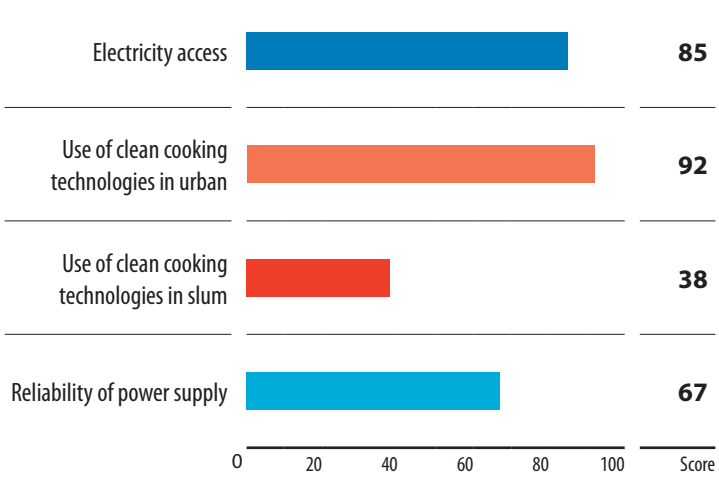
SDG 7 commitments and institutional capacity of Iskandar



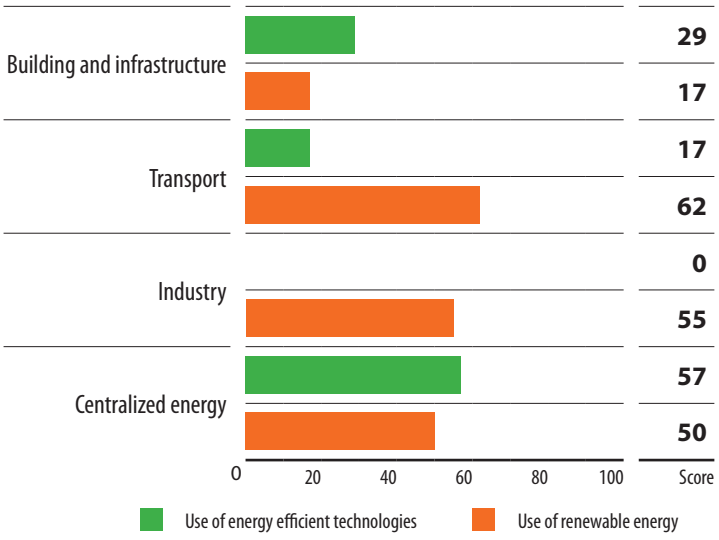
Implementation of SDG 7 support targets and regulations in Iskandar



Assessment of Energy Access in Iskandar



Assessment of utilization of energy efficiency and renewable energy technologies in Iskandar



Recommendations

66 Indicator. Available policies and institutions for SDG localization

The local Government of the jurisdiction does have some specific legal and institutional development powers. However, the following functions can offer more possibilities for administrative and policy actions as well as project implementation: apply taxes (fiscal powers to create and collect taxes). Analysis of the requirements for additional capacity-building should be made under the supervision of a group of local experts and local Government officials and in cooperation with relevant national institutions and stakeholders.

The jurisdiction is implementing policies and projects that take into account existing national SDG 7-related commitments. Ensuring that local efforts on SDG 7 implementation are aligned with the national commitments and plans. Exploring the ways to apply Multi-Level Governance (MLG) approach to implementing SDG 7 is recommended in order to enhance the efficiency of coordination between national and local levels of governance.

The jurisdiction has already established the necessary institutional set-up and appointed dedicated staff to support SDG 7 implementation. It is important to keep monitoring staff qualifications and capacity to ensure that they are sufficient to carry out the work on SDG 7 implementation. It is recommended that consideration be given to allocating budgetary resources for continuous professional training of appointed staff to ensure that they have sufficient knowledge of SDG 7-related issues and solutions.

Some sustainable energy policies for the building sector have been adopted at the national level. However, only a limited number of related initiatives have been implemented at the local level. It is recommended that work be undertaken on the implementation of nationally supported policy instruments at the local level, such as voluntary smart energy metering and voluntary use of energy management standards (ISO 50001 or similar). This implementation may start with selected national policy instruments, and/or cover specific sector or energy end-users in the jurisdiction. Monitoring and verification of the results, achieved after this 'pilot' implementation of selected policy instruments, are needed for possible fine-tuning and adaptation of the policies to the local conditions and requirements. It is also recommended working towards expanding and refining the policy framework in order to arrive at an effective mix of regulatory measures, incentives and information instruments.

Some sustainable energy policies for the transport sector have been adopted at the national level. However, only a limited number have been implemented at the local level. It is recommended that work be done on the implementation of nationally supported policy instruments at the local level, such as regulations on hybrid engines use, regulations on electric engines use, regulations on biogas engines use, and regulations on hydrogen engines use. This implementation may start with selected priority policy instruments, and/or cover specific sector or energy end-users in the jurisdiction. Monitoring and verification of the results, achieved after implementation of selected policy instruments, should be performed for possible fine tuning and adaptation of the policies to the local conditions and requirements. Work is also recommended on expanding the scope and refining the policy framework in order to arrive at an effective mix of regulatory measures, incentives and information instruments.

63 Indicator. Energy data monitoring

The Jurisdiction has established data collection and monitoring systems in the following areas: renewable energy and energy access. Nevertheless, some of the sustainable energy development target still do not have reliable verification mechanisms, such as different SDGs. Establishment of a comprehensive data collection system for the local energy sector and areas related to other SDGs is a crucial foundation for the development and implementation of SDGs-related projects. Consulting existing guidelines on SDG indicators for further improvement of existing systems is recommended.

The jurisdiction has partially implemented an energy management system and smart metering, which covers some of the energy end-users: food and beverages, chemical and synthetic products, glass, cement and non-metals, iron and steel, pulp and paper, textile, leather and leather products, machinery and transportation equipment, wood and other products, agriculture and farming, other processing industry, and district Cooling systems. It is recommended that the scope of the energy management system be extended to other energy consumers and focus be placed on the continuous analysis of data received from the established manual or automated energy metering system, in order to set performance targets for energy end-users. Additional capacity-building training is recommended for local specialists on practical guidance for use of the analytical possibilities of the energy management system as well as the preparation of action plans and accessing potential financial sources for implementation of identified actions. It is advised that a mechanism be initiated for tracking progress on specific key energy performance indicators and revising them regularly (e.g., every five years).

89 Indicator. Cooperation with national and international stakeholders

Jurisdiction is a member of limited amount of multi-stakeholder city initiatives. It is recommended to increase and the level of with city initiatives, networks and associations is recommended in order to benefit from the opportunities for capacity building, peer-to-peer learning, unlocking finance and disseminating knowledge on best-practices and solutions in the field of sustainable energy and SDG 7 localization.

The jurisdiction is actively involved in national and/or international processes and forums related to sustainable energy. Active sharing of achieved results and lessons learnt as well as continuous benchmarking of current SDG 7 implementation status should be considered, in order to disseminate success stories and good practices and to gain visibility at the regional and international levels. This can help to unlock opportunities for further project replication and financing.

Coordination mechanisms between the jurisdiction and other levels of governance (e.g., national Government) regarding sustainable energy issues and/or SDG 7 implementation are already in place. They are supported by respective institutional set-up and budgetary frameworks as well as by jointly implemented activities on sustainable energy. It is recommended ensuring that the results of these joint projects are well-monitored and documented in such a way that stimulates dissemination of good practices, peer-to-peer learning with other jurisdictions as well as benchmarking and gap analysis for future projects on sustainable energy.

62 Indicator. Use of financial resources

Various financial programmes for supporting sustainable energy policies and projects have been adopted at the local level for different energy-consuming sectors. Nevertheless, it is recommended that additional financial incentives be provided to the following sectors for which national-level support is available, such as energy efficiency and renewable energy project in the waste management sector. Improvement is also recommended for local level implementation of the following policy instruments available at the national level: energy access and energy efficiency for commercial building, industry, transport, streetlighting and water management.

The jurisdiction has access to international financial support for the implementation of energy efficiency and renewable energy technology projects in the area of the water management system. Detailed performance monitoring and result verification is required to enable further dissemination of successful results from the implemented projects.

100 Indicator. Awareness raising and capacity building

The jurisdiction has been actively involved in preparation of the reports to track the progress against SDG targets. In order to further improve tracking and reporting processes on progress for SDGs at the local level, it is recommended that some of the available guidelines and reports prepared by other jurisdictions be consulted to learn from their approaches.

The local Government has a track record of successfully implemented awareness-raising programmes to increase citizens' understanding and ownership of the SDG 7 targets. It is important to establish proper monitoring and evaluation of awareness-raising results as well as placing the focus on constant improvement of the programmes in order to ensure continuity of efforts. It is also recommended that different SDG 7-related issues and target groups are given coverage, such as educational programmes for schools, colleges, and universities; public awareness-raising events, promotion of success stories for all citizens and training courses for professionals.

50 Indicator. Implementation

63 Sub-indicator. Energy access

Local government should make efforts to maintain high level of reliable electrification in the jurisdiction, as well as reaching remaining areas that might lack quality electricity supply. Proper monitoring and evaluation of the current power grid operation should be taking place regularly to identify potential efficiency gaps and possible ways for further improvements. Learning from international expertise and best-practices on sustainable electricity will help the local government identify further areas for sustainable energy actions.

Various clean cooking technologies are widely available in the households in the jurisdiction. Further best practice dissemination as well as continuation of the dialogue with national and international stakeholders is required in order to be able to follow low-emission trends and best practices for clean cooking.

Efficient and low-emissions cooking methods are not used, or have very limited use, in slums and informal settlements. Promotion of clean cooking technologies such as: basic methods of burning fossil fuels (coal, oil products, wood, raw organic waste), kerosene, ethanol/alcohol, improved wood cookstoves, solar thermal cooking, solar concentrators, and landfill or biomass methane gas cooking stove and the analysis of cooking technology patterns for different end-users are recommended, in order to identify the most suitable technological solutions and adoption strategies. It is possible to adapt available national and international experience in clean cooking promotion. Large-scale awareness-raising campaigns on clean cooking and its benefits (including improved health and quality of life) should target relevant implementing local agencies and the public. Capacity-building training on assembly and maintenance of clean cooking equipment should be developed and made available to local professionals and low-income communities.

Energy supply is quite reliable and sufficient for end-users most of the time. However, power outages may still occur sometimes. Improvement of the local backup energy supply capacity is recommended by installing emergency generators, including those based on renewable energy. Implementation of energy efficiency measures in buildings and industry will help to mitigate the problem of peak demand and further reduce the risk of power outages.

54 Sub-indicator. **Renewable energy**

Renewable energy targets are being established at the local level. However, these targets lack support from the overarching renewable energy policy framework at the national level. It is recommended that a dialogue be initiated with the relevant national-level stakeholders to inform them about the local targets and the progress the jurisdiction is making towards reaching them as well as the importance for establishing such targets at the country level. It is recommended that a study be conducted of the jurisdiction's renewable energy potential to ensure that such targets are tailored to the local context and different energy consumers. The results of this study and the identified targets should be used as a basis for developing a renewable energy action plan for the jurisdiction. Establishment of a mechanism is advised for tracking progress according to specific key performance indicators and revising them regularly (e.g., every five years).

Targets for reducing GHG emissions/air pollution are being implemented at the local level. However, these targets lack support from the national policy framework at the national level for informing them about the local targets and the progress the jurisdiction is making towards achieving them as well as the importance of establishing such targets at the country level It is recommended that a regular GHG inventory be conducted and that air pollution monitoring in the jurisdiction to collect the data necessary for updating local targets. It is advised that a mechanism be initiated for tracking progress on achieving these targets and revising them regularly (e.g., every five years).

Renewable and non-fossil fuel energy technologies are not used in the building sector and infrastructure, or their utilization is very limited. Deployment of renewable energy solutions should start with establishing ambitious, yet realistic targets based on estimation of the renewable energy potential for various sources available at the local level. In case of data unavailability geospatial data can be collected and analysed by GIS experts Implementation strategy for identified renewable energy sources could be developed in cooperation with experienced local or international professionals. The analysis of relevant financing schemes for renewable energy deployment can help to identify potential sources of investment and project implementation.

The transport sector has a moderate level of renewable energy (RE) utilization. A strategy for upscaling renewable energy utilization should be developed; involvement of experienced local or international consultants with the support from the local government will be beneficial for this process. The strategy should include the analysis of potential sources for renewable project finance and investments, as well as outline policy measures that can support renewable energy utilization in transport (e.g. subsidies, tax deductions for renewable energy technologies, etc.). Capacity building and trainings should be conducted for relevant administrative and technical personnel to improve their understanding of renewable energy in the transport sector.

35 Sub-indicator. **Energy efficiency**

Targets for improved energy efficiency or the reduction of energy intensity are being applied at the local level, although they may only cover a limited number of energy-consuming sectors. However, these targets lack support from the overarching energy efficiency policy framework at the national level. It is recommended that a dialogue be initiated with the relevant national-level stakeholders in order to inform them about the local targets and the progress that the jurisdiction is making towards achieving them as well as the importance for establishing such targets at the country level. It is recommended that a study be conducted of the jurisdiction's energy sector and the opportunities for energy efficiency improvement, with objective of ensuring that such targets are tailored to the local context and different energy consumers. The results of the study and the identified targets should be used as a basis for developing the energy efficiency action plan for the jurisdiction. It is advised that a mechanism be established for tracking progress on reaching these targets according to specific key performance indicators and for revising them regularly (e.g., every five years).

Fossil fuels are used in the building sector and infrastructure of the jurisdiction. However, in most cases the respective equipment and technologies are quite energy-intensive and/or outdated, thus resulting in low levels of energy efficiency. Developing minimum energy performance standards and targets for this equipment is recommended, in combination with the mandatory requirements for regular maintenance and upgrades of energy-consuming technologies. Conducting capacity-building training is recommended for local professionals as well as relevant technical and administrative staff of the jurisdiction on effective deployment, maintenance and financing of renewable energy technologies. Incentive programmes should be provided for further promotion and utilization of renewable energy technologies, where feasible. These measures, among others, should be integrated into the local energy management and clean energy strategy.

Use of energy-efficient technologies for electricity consumption in the building sector and infrastructure is currently at the moderated level. Enhancing dissemination of energy-efficient technologies is recommended, preferably supported by relevant financial incentives to encourage consumers' choices in favour of more energy-efficient appliances and equipment. Engagement of the private sector and international financial institutions is highly recommended through documentation and dissemination of the impacts and lessons learnt, continuous capacity-building as well as collaboration with international organizations and think tanks.

Efficient fossil fuels technologies have limited use in the transport sector of the Jurisdiction.
Further promotion of sustainable energy, low-emission solutions in the transport sector is recommended (for example, high- efficiency hybrid and electric vehicles in combination with renewable supply, heavy freight haulage, last mile freight and private transport). Initiating the establishment of a relevant administrative and financial framework is also recommended. Awareness-raising campaigns on "green transport" could also increase understanding of the importance of a low emissions transport system in the modern city infrastructure. Additional capacity-building training is recommended for dedicated administrative and technical staff, with the focus on best practices and lessons learnt from low-carbon transport solutions by other countries and cities. Such programmes could be conducted with the support of relevant national institutions or international organizations.

Utilization of energy efficient renewable energy and non-fossil fuel technologies is limited in the jurisdiction's transport sector. It is recommended that support is increased for monitoring and evaluation of the achieved results of the existing projects, in order to be able to identify the opportunities for scaling up successful solutions for replication across the jurisdiction, including planning and development of relevant infrastructure. Capacity-building training for dedicated administrative and technical staff could be focused on the operation of low-emission transport systems as well as awareness raising about efficient transportation practices that can be integrated into the overall decarbonization strategy of the jurisdiction.

The jurisdiction has limited or pilot level electrical vehicle deployment. A further increase in the number of electrical vehicles should be accompanied by the development of supporting infrastructure. This includes charging stations and batteries as well as the overall decarbonization of the electricity supply in the jurisdiction through wider utilization of local renewable energy sources. Financial incentives – such as lower vehicle taxes, lower electricity tariffs for charging, free parking etc., for private electric vehicles – will stimulate consumers' choices in favour of this type of transport, especially once the supporting infrastructure becomes widely available.

63 Indicator. **Indicator 7. Linkages to other SDGs**

67 Sub-indicator. **SDG3. Good health and well-being**

Most of the existing health-related facilities have adequate space cooling and can, to a large extent, satisfy the health needs of the local population. Improvement and analysis of energy data monitoring is recommended for the health-care facilities in the jurisdiction. It is also recommended that dedicated energy performance indicators (focused on space cooling efficiency) be included in the energy management system or relevant existing energy monitoring protocol, if any. It is recommended that consideration be given to implementing passive cooling strategies (especially for new buildings) through building design, insultation, shading, white roofs, windows with low-e coating and natural ventilation, where applicable, to reduce the cooling load, and that energy efficiency improvement be made in active cooling systems (i.e., air-conditioning, refrigeration, ventilation, etc.), including integration of renewable energy solutions.

The jurisdiction has a sufficient number of mobile vaccine/blood refrigeration facilities to satisfy most of the current needs of the local population. Such facilities are crucial to ensuring people's well-being and adequate responses to a health crisis (such as the one caused by the COVID-19 pandemic). Therefore it is recommended that a local sustainable health-care strategy be prepared, or the existing one updated, in consultation with the national level stakeholders and in cooperation with international organizations, in order to analyse present and future local health-care needs for related sustainable supply chains and their readiness for emergency response. As further expansion of such facilities and equipment will increase energy use and the need for a reliable electricity supply, it is recommended that consideration be given to the existing energy-efficient solutions available for health cold chain and 'green' vaccines supply (e.g., energy-efficient cooling and refrigeration technologies with better insulation, off-grid direct current-based refrigerators, solar cooling or solar direct drive vaccine refrigerators).

75 Sub-indicator. SDG6. Clean water and sanitation

Sustainable practices are applied for treating most of the wastewater generated in the jurisdiction. Further expansion of wastewater facilities, sufficient maintenance and upgrade of existing wastewater treatment facilities, including integration of energy-efficient and renewable energy technologies, are required in order to achieve sustainable water access for all of the citizens. Additional capacity-building training is required for the involved personnel to build their skillset for operating any new equipment. In order to ensure the development of an adequate wastewater treatment system, consultation should be undertaken with relevant national level stakeholders as well as international development organizations working in this area and the private sector.

Water management and sanitation equipment in wastewater facilities is relatively energy-efficient and is functioning without significant energy losses. It is recommended that proper maintenance of the wastewater equipment be prioritized and, where necessary, upgraded, starting with identification of existing best practices and integration of energy-efficient and renewable energy solutions. Funding options for these activities can be explored through consultations with relevant national stakeholders, international organizations and the private sector. Additional capacity-building training for the operational personnel as well as technical support are required to ensure the availability of adequate skillsets for operating the advanced equipment and systems.

Implementation of Integrated Water Resource Management (IWRM) is a common practice and is widely implemented in the jurisdiction. Conducting detailed monitoring and evaluation of results achieved is recommended after IWRM introduction. The findings should then be presented to the relevant administrative and technical personnel for evaluation and identification of areas needing further improvement, and supported by an analysis of existing IWRM best practices at the national and international levels.

The jurisdiction is using a number of energy-efficient technologies in its IWRM. It is recommended that relevant energy performance monitoring and verification protocol be undertaken in order to identify the corrective measures needed as a result of load profile.

71 Sub-indicator. SDG11. Sustainable cities and communities

A relatively small portion of the local population (less than 5%) lives in informal settlements or inadequate housing. People who live in these areas typically do not have access to sustainable energy services. Deployment of energy-efficient and renewable energy technologies is challenging, due to the lack of basic infrastructure. Integration of upgrading strategies for such informal settlements into local housing policies is recommended. Also recommended is the development of policies on energy access (electrification and clean cooking) and last-mile electrification of these areas in combination with support programmes for slum dwellers to use more energy-efficient and renewable energy technologies, such as solar LED lighting, solar mini-grids and efficient cooking stoves. Awareness-raising about benefits of sustainable energy technologies and their proper maintenance are important to ensuring effective adoption and long-term use.

A large portion of the local population has access to the existing public transport system. Monitoring of the transport system's performance and related GHG emissions is needed, in order to conduct benchmarking of the existing system compared to available national or international successful analogs. It is advisable to review the network of public and shared transportation applicable for the local conditions, and to develop a strategy to improve access to low-emissions transport. Supporting infrastructure (e.g., charging stations for e-vehicles) should be planned and developed together with the implementation of the transport network.

Pedestrian lanes are common in multiple places in the jurisdiction and most of them are convenient for walking, although some lanes require improvement. Improvement of the situation is recommended by expanding existing territorial planning solutions or by introducing additional ones (e.g., dedicated lanes for pedestrians and cyclists, restricted pedestrian area, etc.) aimed at developing effective walkable neighbourhoods, as well as ensuring proper maintenance of existing pedestrian areas. Such measures can significantly reduce transportation energy use as well as improve air quality and people's well-being.

The level of air pollution in the jurisdiction is considered unhealthy for sensitive groups of people. It is recommended that support be given to the development of the low-emission development strategy, with priority focus on the analysis of potential solutions aimed at air pollution reduction It should cover different energy consumers in the jurisdiction, and should include the improvement of energy efficiency and increased utilization of renewable energy sources in the main air-polluting sectors.

33 Sub-indicator. **SDG12. Responsible production and consumption**

Most of the solid waste is collected, and transported to open landfills without prior treatment. Open landfill storage of waste is having a strong negative impact on the environmental situation in the jurisdiction as well as in the neighbouring territories. It is recommended that an analysis be undertaken of relevant national and international practices for solid waste storage, disposal and treatment technologies. In addition, investigating the potential for waste-to-energy projects is recommended. The possibility of attracting extrabudgetary financing should be examined for pilot projects for testing of suitable solutions as well as for conducting capacity-building training of local professionals focused on introducing and operating low-emissions solid waste treatment systems. These activities should be consolidated into the local waste management strategy.

67 Sub-indicator. **SDG13. Climate action**

Disaster reduction strategies are being developed and/or are under implementation at the local level in line with relevant national strategies. A review of these strategies is recommended to see whether the synergies between disaster reduction and sustainable energy solutions are being considered. Examples of such synergies may include, but are not limited to materials and technologies that enhance a building's energy efficiency and the building more durable and resilient to threats posed by natural disasters. A sustainable energy supply, co-generation systems, distributed generation and micro-grids can support the recovery process from natural disasters etc. Where such synergies are not considered in the existing disaster reduction strategies it is recommended that relevant adjustments be made based on existing international good practices. Implementing a public awareness programme on these synergies is recommended in order to influence the adoption and implementation of energy-efficient and resilient designs.

UNITED NATIONS ESCAP
Economic and Social Commision for Asia and the Pacific

About the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

ESCAP serves as the United Nations' regional hub promoting cooperation among countries to achieve inclusive and sustainable development. The largest regional intergovernmental platform with 53 Member States and 9 Associate Members, ESCAP has emerged as a strong regional think-tank offering countries sound analytical products that shed insight into the evolving economic, social and environmental dynamics of the region. The Commission's strategic focus is to deliver on the 2030 Agenda for Sustainable Development, which it does by reinforcing and deepening regional cooperation and integration to advance connectivity, financial cooperation and market integration. ESCAP's research and analysis coupled with its policy advisory services, capacity building and technical assistance to governments aims to support countries' sustainable and inclusive development ambitions.

UN environment programme

About the UN Environment Programme (UNEP)

UNEP is the leading global voice on the environment. It provides leadership and encourages partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations. This work is supported by the UNEP-led Integrated Urban Systems Partnership – a public-private initiative launched by UNEP and partners in 2019 that supports an integrated approach to infrastructure development in cities to achieve more sustainable and liveable cities that are more energy and resource efficient.

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