SDG 7 Localisation Snapshot

SANTA ROSA CITY, Philippines

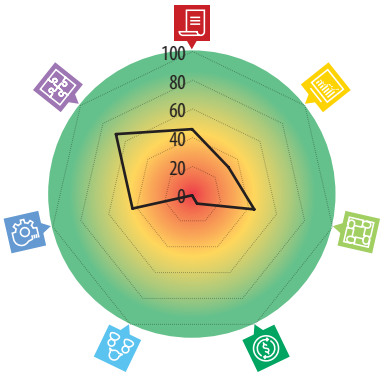
SDG7 Localisation Snapshot provides a brief overview of the key areas related to implementation of the Sustainable Goal 7 (SDG7) to 'Ensure access to affordable, reliable, sustainable and modern energy for all' at the local level based on the answers provided by the jurisdiction to the SDG7 Localisation 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	SANTA ROSA CITY
Country of the jurisdiction	Philippines
Population of the jurisdiction	0.439 million people
Area of the jurisdiction (in km²)	54.13
Predominant climate	Type II climate No dry period at all throughout the year, with a pronounced wet season from November to February

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

46	32	44	6	0	43	69
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

66 Energy access	46 Renewable energy	17 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.

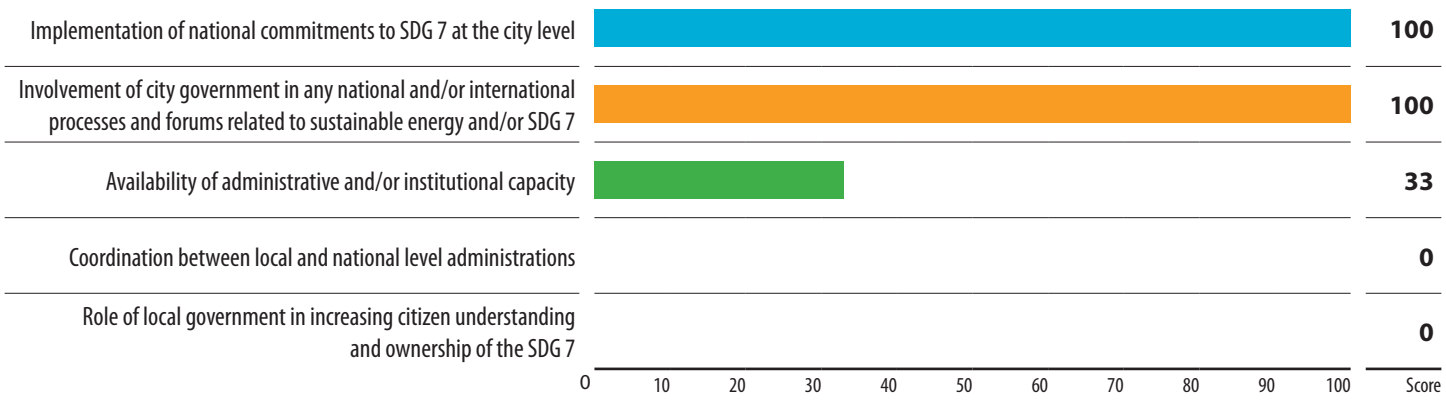
Sub-indicator score

52 SDG3. Good health and well-being.	54 SDG6. Clean water and sanitation.	71 SDG11. Sustainable cities and communities.	67 SDG12. Responsible production and consumption.	100 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.

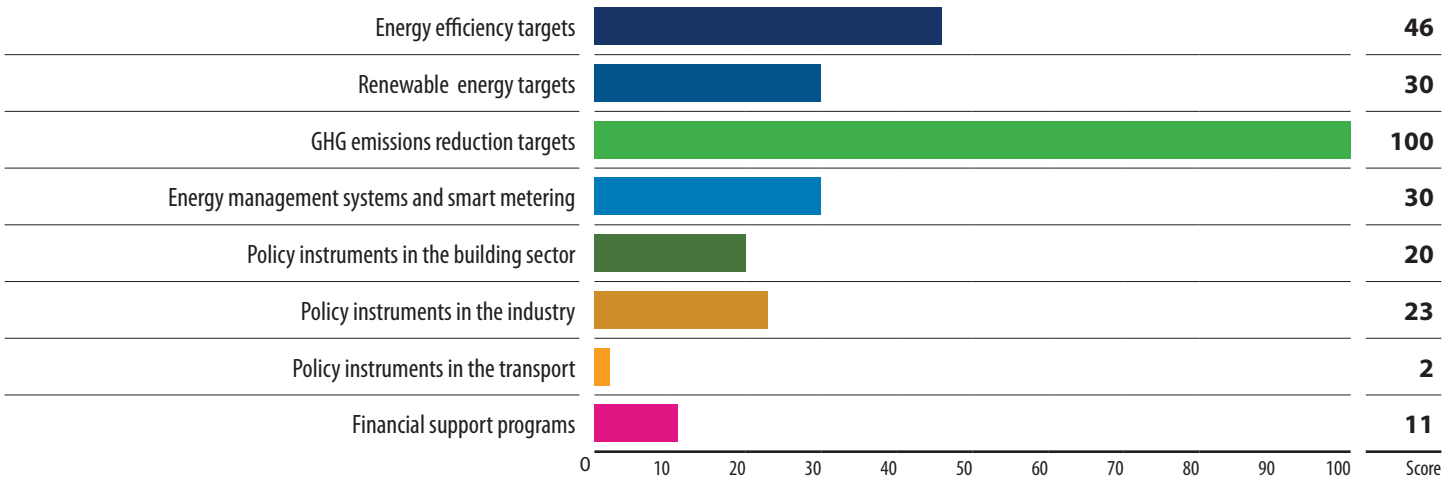
The results for each indicator are presented as a nominal score from 0 to 100 (where 100 is the maximum possible score, that can be achieved for each indicator or sub-indicator based on the aggregation of all answers of the questionnaire attributed to this particular indicator or sub-indicator).

SDG 7 commitments and institutional capacity of Santa Rosa City

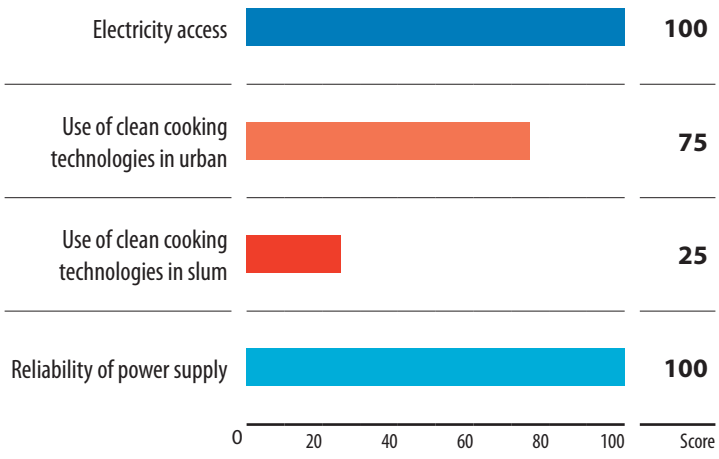


Note: The jurisdiction has no information or is not aware of coordination between local and national level administrations.

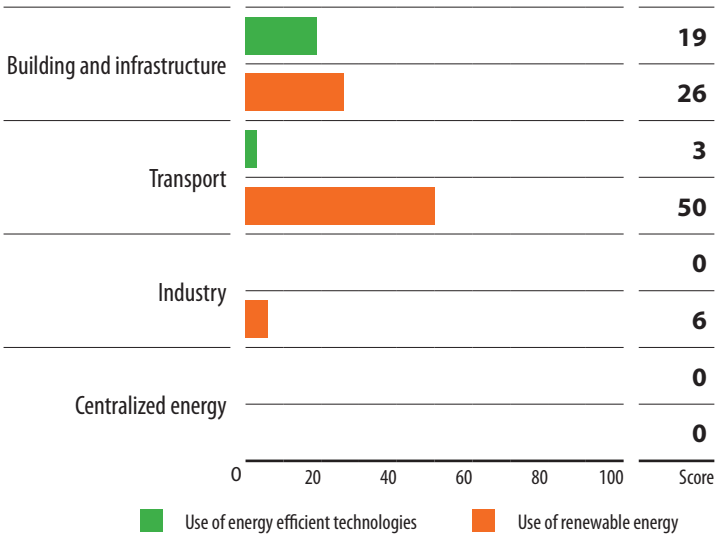
Implementation of SDG 7 support targets and regulations in Santa Rosa City



Assessment of Energy Access in Santa Rosa City



Assessment of utilization of energy efficiency and renewable energy technologies in Santa Rosa City



Note: Energy consumer is not present; energy source is not available in the jurisdiction for the use of renewable energy in centralized energy.

Recommendations

46 Indicator. Available policies and institutions for SDG localization

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 started development of the institutional framework to support SDG 7 implementation. At this stage it is important to develop the necessary administrative process and to clearly define responsibilities of the supporting staff, who will be working on SDG 7 implementation. It is also important to ensure that staff qualifications are adequate enough to carry out their work responsibilities. It is recommended that consideration be given to allocating some resources towards capacity-building and 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 sustainable procurement regulations, mandatory energy performance certification and labeling of buildings, energy efficiency obligations schemes/ White certificates, carbon market project mechanisms/ Green certificates, awareness raising, education and information campaigns on sustainable energy, net-metering regulations, mandatory requirements for on-site solar generation, energy efficiency action plan, and mandatory energy auditing. 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 bus rapid transit. 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.

32 Indicator. Energy data monitoring

The jurisdiction has made no or very limited efforts on data collection and monitoring of SDG 7-related impacts. 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. Relevant administrative, policymaking, and implementation activities should be put in place in order to support rapid roll-out of data collection and monitoring systems.

Energy management system and smart metering are currently under development. This covers a limited number of energy end-users in the jurisdiction, and its implementation at the local level is lacking supporting policy instruments: residential sector buildings, public sector buildings, commercial buildings, slums and informal settlements, 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, passenger car, motorbike, taxi, auto rickshaw, bus, tram, tractor, mini bus, freight transport, landfills, waste recycling, street lights, architectural and buildings lights, centralized water supply, and centralized sanitation systems. It is recommended that the necessary administrative and regulatory support is provided, starting with the appointment of responsible energy manager (or department), development of the Energy Action Plan and the implmentation strategy. Transparent energy data collection and analysis is required for enabling access to extrabudgetary financing of SDG 7 oriented projects. For sectors which are still not covered by both national and local level programmes, the same steps for establishment of energy management system could be taken, with additional development of primary documents.

44 Indicator. Cooperation with national and international stakeholders

Jurisdiction has been involved in a few multi-stakeholder city initiatives. Further development of national and international cooperation 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.

6 Indicator. Use of financial resources

Some financial programmes to support sustainable energy policies and projects have been adopted at the national level. However, only a limited number have been implemented at the local level. Focus on further strengthening the local level implementation of these mechanisms is recommended, in order to enable access to available extrabudgetary options that could be used to support execution of local-level projects. Additional capacity-building training for responsible administrative personnel, and the development of guidelines on accessing finance, are important steps towards establishing the framework for local procurement and financing procedures.

The jurisdiction does not have access to international support for energy efficiency and renewable energy water treatment project implementation. It is recommended that the level of cooperation between local administrative representatives and international development organizations be increased. Discussion and development of clear financing guidelines could streamline the process of project identification, preparation and implementation.

0 Indicator. Awareness raising and capacity building

Currently, efforts to increase citizens' understanding and ownership of the SDG 7 targets through awareness-raising campaigns are not included in the local Government's policy agenda. It is crucial to design and implement a series of information campaigns as well as awareness- raising materials to educate citizens on the importance of their actions in line with different SDGs. It is recommended that the local Government conduct outreach activities concerning its on-going and planned activities and how they align with SDGs as well as potential (or achieved) benefits from their successful implementation. This will help to gain additional support citizens and improve their self-motivation.

43 Indicator. Implementation

66 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.

A number of clean cooking technologies are used by households in the jurisdiction, such as: electric cookers/pressure cookers, induction electric stoves, and high efficient natural gas or LPG stoves. Further promotion and support for clean cooking technology dissemination (e.g., capacity-building training on assembly and maintenance of clean cooking equipment for local professionals and low-income communities) are required, in order to achieve replication of efforts and large-scale adoption.

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, electric cookers/pressure cookers, induction electric stoves, low emission stoves (using fossil fuels or pellets/charcoal briquettes), 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.

The jurisdiction has a sustainable energy supply. Power outages are not common. It is important to maintain emergency backup energy generation facilities in operation mode in order to be prepared for immediate reaction to blackouts in the main energy source. Establishment of regular training is recommended for the responsible operation personnel as well as capacity building for responsible engineering staff, as it will facilitate implementation of the best available technologies and solutions for sustainable energy supply, such as integration of renewable energy sources.

46 Sub-indicator. Renewable energy

Renewable energy targets exist at the national level. However, these targets are currently not being implemented at the local level. It is recommended that a dialogue be initiated with the relevant national-level stakeholders to discuss how the jurisdiction can implement these targets at the local level as well as receive necessary support for this process. It is recommended that a study be conducted of the jurisdiction's renewable energy potential in order to establish such targets tailored to the local context and different energy consumers. The results of this study and 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 to reduce GHG emissions/air pollution exist at the national level and are being applied at the local level. It is recommended that a constructive dialogue be maintained between relevant national and local-level stakeholders in order to coordinate the efforts and progress towards achieving these 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.

17 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 low level. Supporting further promotion of energy-efficient domestic and commercial appliances is recommended. Financial incentives and changes in the public procurement process can be used to encourage consumers' choices in favour of more energy-efficient appliances and equipment. Capacity-building training and awareness raising campaigns, targeting dedicated administrative and technical staff in the jurisdiction, should be focused on the development of relevant skills for the cooperation with the manufacturers and suppliers of energy-efficient equipment.

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.

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.

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

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

All of the Jurisdiction's existing health-related facilities have sufficient space cooling and are able to satisfy most of the health needs of the local population. It is recommended that consideration be given to further implementation of passive cooling strategies (especially for new buildings) through building design, insultation, shading, white roofs, windows with low-e coating, natural ventilation, where applicable, to reduce the cooling load. Energy efficiency improvement of active cooling systems (i.e., air-conditioning, refrigeration and ventilation), including integration of renewable energy solutions, is also recommended.

The jurisdiction does not have any available mobile vaccine/blood refrigeration facilities. Such facilities are crucial for people's well-being and for adequate responses to health crises (such as the one caused by the COVID-19 pandemic). It is recommended that a local sustainable healthcare strategy be prepared in consultation with the national level stakeholders and in cooperation with international organizations, in order to find possibilities for financing the purchase and maintenance of related supply chains and their readiness for emergency response. Large-scale deployment of such facilities and equipment will increase energy use and the need for a reliable electricity supply. Therefore, consideration should be given to existing energy-efficient solutions available for the 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).

54 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.

Integrated Water Resource Management (IWRM) is recognized as an important practice in the jurisdiction and there are multiple cases of its implementation. It is recommended that detailed monitoring and evaluation of results achieved be carried out after IWRM introduction. The findings should be presented to the relevant administrative and technical personnel for evaluation and identification of areas needing further improvement, supported by an analysis of existing IWRM best practices at the national and international levels.

Exploring the opportunities for further integration of energy-efficient and renewable energy technologies into the existing IWRM is recommended (e.g., smart process control systems, automated demand-side water supply regulation, solar energy for water supply and treatment etc.). This should be supported by building relevant technical capacity.

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.

The jurisdiction is operating a wide public transport system, and most of the local population has access to public or shared transportation. It is recommended that further improvement of the system be carried out, with the introduction of energy-efficient transport solutions, increased utilization of renewable energy as well as expansion of the supporting infrastructure (e.g., charging stations for e-vehicles).

Pedestrian lanes are not very common in the city or most of them require substantial improvement. This discourages people from choosing low- and zero-emission modes of mobility, such as walking and cycling; this, in turn, increases the demand for utilization of private cars and other modes of energy-consuming transportation. It is recommended that the situation be improved by introducing various territorial planning solutions (e.g., dedicated lanes for pedestrians and cyclists, restricted pedestrian areas 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.

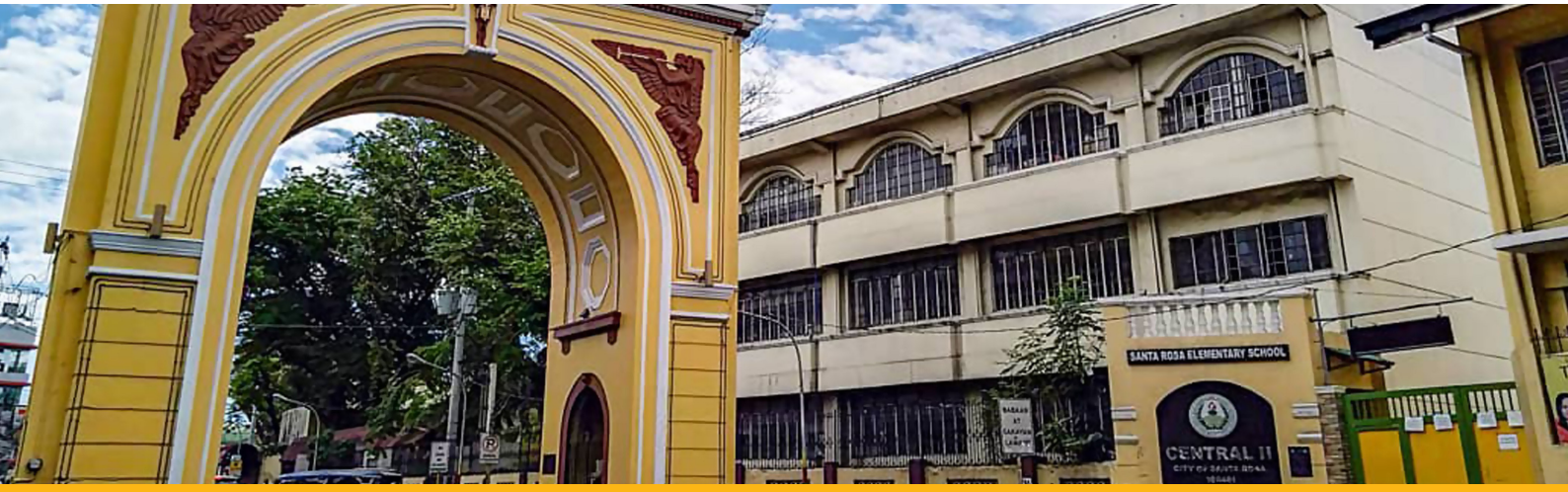
The level of air pollution in the jurisdiction is considered low. Continuing to maintain high air quality in the jurisdiction is recommended together with the use of green and pollution-free energy use and generation technologies, with the focus on improving energy efficiency and increased utilization of renewable energy sources.

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

The jurisdiction is taking steps towards sustainable waste management process implementation with some of the landfills already implementing pilot waste treatment and recycling practices. Conducting a detailed benchmarking analysis of the operational efficiency on the implemented waste recycling facilities is recommended, together with the preparation of a strategy for replication of successful sustainable solutions in other facilities in the jurisdictions. A feasibility study to explore the potential for waste-to-energy projects in the jurisdiction, its cost-effectiveness and ways to gain financing can help to enhance waste treatment as well as offer a local source of sustainable energy. Conducting capacity-building training for local professionals, focused on existing best practices for sustainable solid waste treatment systems, and consideration of possible financing mechanisms is also recommended. Cooperation with relevant national level and international stakeholders is required at this stage in preparing guidelines for large-scale development and implementation of green urban solid waste treatment projects.

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

Disaster reduction strategies are being implemented at the local level in line with relevant national strategies. Reviewing these strategies is recommended in order to learn 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 as well as make 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. Implementation of 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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