



# TRAINING REPORT



# SMART CITY ORIENTATION WORKSHOPS

January 2024

## 1. BACKGROUND

The Cambodian Smart City Taskforce, a collaborative effort comprising the Cambodian Ministry of Interior (Mol), UN-Habitat, UNOPs, JICA, and GIZ has been actively facilitating sub-national level discourse and capacity building on the Smart City topic. This effort is guided by a longer-term objective to develop sub-national level Smart City activities and projects in Cambodia. In pursuit of this objective, as an initial step, the taskforce organized two Smart City Orientation Workshops in December 2023.

The orientation workshops were meticulously designed to build on the existing Smart City frameworks and activities underway in Cambodia. This encompasses a series of initiatives, projects, and publications. Notable publications include the (i) *Phnom Penh 2022-2035 Smart & Sustainable City Strategic Roadmap*, (ii) *Cambodia Digital Government Policy 2022-2035*, (iii) *Smart City Initiative Siem Reap (JICA)*, and the (iv) *ASEAN Smart Cities Network Monitoring & Evaluation Report 2022*, which documents seven ongoing Smart City projects in Cambodia. Moreover, the workshop was also framed around Cambodia's overarching strategy to become a high-income country by 2050 as delineated in the *Cambodian Pentagon Strategy Phase 1*<sup>1</sup>.



Figure 1. Notable Cambodian publications on the Smart City topic

## 2. TRAINING OBJECTIVES

The objectives of these orientation workshop were as follow:

- To enhance the understanding of participants on city assessment by using people centered smart city
- To support the participant to identify their city priority needs.
- To accompany the participants in expressing the according strategies and solution paths
- To better see how the smart city can support these solutions
- To identify recommendations for prospective next steps to propel smart city initiatives at a national scale

## 3. VENUE, DATE AND PARTICIPANTS' PROFILE

The inaugural workshop was held in Kampot Province from 6<sup>th</sup> to 7<sup>th</sup> December 2023, followed by a subsequent iteration in Siem Reap Province from 12<sup>th</sup> to 13<sup>th</sup> December 2023. Both workshops combined

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<sup>1</sup> Pentagon Stagey – Phase I: a strategy launched in August 2023 under Prime Minister H.E. Hun Manet to build the foundations towards realising the Cambodia Vision 2025. The strategy comprises 5 angles, one of which is a digital angle.

brought together provincial and municipal officials (governors, deputy governors, and provincial capital authorities involved in the smart city topic) from all 24 Cambodian provinces, alongside representatives from Phnom Penh City Administration (PPCA).

#### 4. PROCEEDINGS

The orientation training was divided into four main sessions: i) presentation on city assessment by using people centered smart city approaches, ii) group discussion, iii) group presentation and iv) wrap-up and recommendation.

The facilitators implemented an interactive training methodology to ensure that participants not only received but also accurately perceived and comprehended the information. To guarantee this, facilitators utilized participatory approaches including presentations, group discussions, and pair works, among others. Additionally, the facilitators maintained an open forum for questions, comments, and suggestions. The interactive sessions and discussions were facilitated by training materials including flip charts, and PowerPoint presentations.

#### DAY 01

##### *Session 1: Opening*

Both orientation workshop commenced with a series of opening remarks from the hosting Provincial Governors in Kampot and Siem Reap respectively, along with statements from the Ministry of Interior (MoI), featuring H.E. the Secretary of State in Kampot, and H.E. Suos Prathna the General Director of General Department of Local Administration in Siem Reap. Subsequently, formal welcomes were extended by the Smart City Taskforce which included remarks from GIZ, the UN, and JICA.



*Figure 3. top-left: opening Remarks by H.E Ngy Chanphal, Secretary of State of the Ministry of Interior and Chair of the Smart Cities Steering Committee; bottom-left Siem Reap Deputy Governor Yun Linne; bottom-right Ikeda Ryohei, Siem Reap Smart City Initiative (JICA).*

## ***Section 2: Presentation on City Assessment by using People Centered Smart City***

Expanding upon these initial remarks, a presentation was delivered by Mr. Conrad Richardson on behalf of GIZ to introduce the topic of Smart Cities. This session set out to define the smart city concept – beyond the conventional technocentric perspective, elucidate its significance, stress the need for good governance, and offer an overview of the current status of Smart Cities in Cambodia.

The presentation concluded with a systematic 4-step workflow for initiating the development of Smart City strategies. Whereby, *step 1*, involves identifying existing challenges and smart city solutions, and exploring potential additional smart city solutions; *Step 2*, requires formulating a strategy and establishing a target vision; *Step 3*, directs attention toward preparing a phased implementation plan, together with the development of supportive policies; and, lastly, *step 4*, requires preparing the necessary governance structure and communication protocols to ensure a smooth implementation.

## ***Session 3: Group Discussion***

The previous sessions were designed to establish the necessary foundations for an engaging interactive activity in this session, aimed at fostering dynamic dialogue and idea sharing among the participants. To start this collaborative process, the officials from all provinces were organised into randomised groups, wherein they were tasked with selecting two Smart City topics (or ‘domains’) of particular priority. The available topics included:

- Mobility
- Public Services
- Agriculture
- Waste
- Economy
- Social Services
- Education
- Energy
- Security
- Public Space
- Health

Upon selecting their topics, the groups worked closely with a designated moderator to identify and compile a comprehensive list of key challenges associated with their chosen topics. The moderators played a crucial role in guiding, facilitating, and documenting the discussions. This initial phase allowed participants to delve into the intricacies of the issues at hand. Once the challenges were exhaustively listed, participants were then tasked with brainstorming potential Smart City technical and non-technical solutions, with the continued support of their respective moderator. To aid in this process, an ‘idea wall’ was prepared, providing additional suggestions of potential problems and Smart City solutions across the various topics. This structured approach ensured a well-rounded exploration of the challenges faced by the participants.

**Session 4: Group Presentations**

After discussion, each group was tasked with presenting the culmination of their collaborative efforts. The presentations encapsulated the diverse perspectives and innovative solutions proposed by each group. Following each presentation, a stimulating question-and-answer session ensued, providing an opportunity for further clarification and in-depth exploration of the topics at hand. Wherever possible, the Smart City Taskforce provided critical feedback to enrich the overall discourse. The interactive activity served to provide a more profound understanding of the challenges and opportunities inherent to Smart City development in Cambodia. The insights and discussion points from the activity have been summarised in the following section.

**Discussion points**

The interactive session during the workshop brought light to numerous problems and challenges, along with prospective smart city, and ‘non-smart city’ solutions. These are summarised below.

The participants, when prompted to designate a primary Smart City topic demonstrated a unanimous concern for *waste management* across all Cambodian Provinces and Municipalities. The unanimous prioritisation of waste management is underscored by the findings presented in Table 1, where every group identified waste management as a critical topic. This unanimity towards *waste management* emphasises the gravity of the waste management issues and underscores the imperative for the development of effective solutions. The subsequently selected topics were *safety & security* (selected 3 times), followed by *education* and *public space* (each selected twice).

*Table 1. Group Priority Topic Selection*

<b>Kampot</b>	<b>Group Topic Selection</b>	
<i>Group 1:</i>	▪ Waste	▪ Education
<i>Group 2:</i>	▪ Waste	▪ Economy
<i>Group 3:</i>	▪ Waste	▪ Safety & Security
<i>Group 4:</i>	▪ Waste	▪ Public Space
<i>Group 5:</i>	▪ Waste	▪ Safety & Security
<b>Siem Reap</b>	<b>Group Topic Selection</b>	
<i>Group 1:</i>	▪ Waste	1. Education
<i>Group 2:</i>	▪ Waste	2. Public Space
<i>Group 3:</i>	▪ Waste	3. Safety & Security
<i>Group 4:</i>	▪ Waste	4. Health
<i>Group 5:</i>	▪ Waste	5. Public Services

The table below provides a summary of the identified challenges/problems on the left, and corresponding solutions on the right, starting with the *waste management* topic, then *safety and security*, followed by *education* and *public space*. It is worthwhile noting that not all solutions presented are ‘Smart City’ solutions as these are complex problems that require multi-faceted solutions.

The solutions put forward have been organised according to the Avoid-Shift-Improve (ASI) framework. ASI is a sustainability strategy that focuses on minimising environmental impact. ‘*Avoid*’ involves eliminating or reducing activities that contribute to harm, such as avoiding unnecessary resource consumption. ‘*Shift*’ entails transitioning to more sustainable alternatives and practices. ‘*Improve*’ emphasises enhancing existing processes or technologies to make them more environmentally friendly, promoting continuous improvement in sustainability practices. Smart City solutions primarily feature in the ‘improve’ pillar.

<b>WASTE</b>	
<b>Challenge / Problem</b>	<b>Solution</b>
<p>▶ <b>Poor waste segregation</b> leads to contamination of recyclables, diminishing the potential and effectiveness of recycling programs, while increasing the volume of non-recyclable waste in landfills, contributing to environmental degradation and resource depletion.</p>	<p>▶ <i>Avoiding</i> poor waste segregation via robust public education campaigns to raise awareness, and encourage collaborative efforts between local governments, businesses, and communities. As well as through stringent waste collection policies, enforcing penalties for non-compliance.</p> <p>▶ <i>Improving</i> waste segregation through the provision of accessible and clearly marked recycling bins, and by investing in advanced sorting technologies at recycling facilities to enhance the efficiency of segregation.</p>
<p>▶ <b>Lack of landfill infrastructure</b> poses challenges in handling and disposing of municipal solid waste, leading to illegal dumping and environmental pollution, while hampering proper waste management practices, and efforts to address growing waste volumes.</p>	<p>▶ <i>Avoiding</i> overall waste generation waste by taxing single-use plastics.</p> <p>▶ <i>Shifting</i> towards reusable and biodegradable materials, as well as waste recycling (reduce, reuse, recycle).</p> <p>▶ <i>Improving</i> landfill infrastructure through strategic urban planning and by investing in advanced waste-to-energy technologies.</p>
<p>▶ <b>Open landfills</b> pose significant environmental and public health issues, contributing to air and water pollution through the release of harmful gases and leachate, posing a threat to nearby ecosystems.</p>	<p>▶ <i>Avoiding</i> the continued use of open landfill, through closure and remediation initiatives, and more broadly avoiding the generation of waste through reductionist policies, taxation, and education campaigns (see previous).</p> <p>▶ <i>Shifting</i> to recycling, composting, and waste-to-energy technologies, as well as modern landfill practices.</p> <p>▶ <i>Improving</i> the overall quality of landfill infrastructure (see previous).</p>
<p>▶ <b>Poor enforcement of waste management services</b> leads to widespread non-compliance with regulations, resulting in <i>illegal dumping, littering</i>, and inadequate disposal practices, contributing to</p>	<p>▶ <i>Avoiding</i> poor practices through stricter penalties for non-compliance, along with consistent and transparent enforcement practices, as well as public awareness campaigns to promote responsible waste disposal behavior and foster community engagement.</p>



<p>environmental pollution and also health risks to communities.</p>	<p>► <i>Improving</i> monitoring and regulatory oversight to ensure adherence to waste management regulations.</p>
<p>► <b>Inadequate capacity to transport waste to landfills</b> results in inefficient waste management, leading to delayed or inadequate disposal of solid waste. This can contribute to the accumulation of waste in populated areas, causing environmental pollution, health hazards, and aesthetic degradation.</p>	<p>► <i>Improving</i> waste transport to landfills involves implementing efficient logistics and infrastructure solutions. This includes optimising collection routes and schedules to ensure timely and regular waste pickup. Investing in a well-maintained fleet of waste collection vehicles and employing advanced technologies for route planning can enhance transport efficiency (see Siem Reap Smart City initiative pilot project). Additionally, exploring alternative and environmentally friendly transport methods, such as electric or hybrid vehicles, can further reduce the environmental impact of municipal waste transportation.</p>
<p>► <b>Littering, illegal waste dumping, and accumulation of single use plastic waste</b> – the improper disposal and inadequate recycling of single-use plastics lead to pollution of urban landscapes, waterways, and ecosystems. The persistence of these materials in the environment contributes to long-term ecological harm, endangers wildlife, and creates health risks for both the environment and human populations.</p>	<p>► <i>Avoiding</i> the use of single-use plastics through policy, taxation, and public education campaigns. Organising monthly public street cleaning campaigns (see ‘Umuganda’ in Kigali, Rwanda). Creating neighbourhood watch programmes to foster community engagement, create accountability, and promote a sense of responsibility.</p> <p>An alternative idea to avoid creating waste and to improve waste collection is an initiative whereby waste is used as a means of payment for example, where plastic bottles can be exchanged for bus tickets, a concept seen in Surabaya (Indonesia), and Curitiba (Brazil).</p> <p>► <i>Shifting</i> towards biodegradable, reusable, and recyclable alternatives. For instance, by offering financial incentives or tax break to businesses that adopt sustainable packaging and reduce single-use plastics. Introducing neighbourhood watch incentives to create community-level accountability.</p> <p>► <i>Improving</i> the availability and management of waste receptacles (bins) in cities.</p>
<p>► <b>Unwillingness to pay for waste management services</b> results in insufficient funding for investing in new initiatives and infrastructures, and also limits the potential for innovation and technology adoption.</p>	<p>► <i>Improving</i> the overall payment process and experience through a transparent fee structure (detailed cost breakdowns), educational campaigns, incentives for responsible waste disposal, flexible payment options, and if necessary, subsidies for low-income families.</p>
<p>► <b>A lack of data on waste generation</b> poses significant challenges, impeding informed decision-making for effective waste management. It hinders the ability to plan and allocate resources efficiently, leading to suboptimal infrastructure and services.</p>	<p>► <i>Improving</i> through the implementation of robust data collection systems, utilising technologies like sensors and smart bins. Governments and municipalities should also invest in comprehensive surveys and audits to assess waste composition and trends, enabling informed decision-making. Collaborative efforts with businesses and communities can facilitate data sharing, fostering a more accurate understanding of waste generation patterns and supporting sustainable waste management initiatives.</p>

<b>SECURITY &amp; SAFETY</b>	
<b>Challenge / Problem</b>	<b>Solution</b>
<p>▶ <b>Traffic Safety</b> – a result of poor infrastructure and vehicles, distracted driving (e.g. mobile phone use), rule violations, and drinking and driving. As well as, inadequate road maintenance, subpar intersections, and limited pedestrian facilities.</p>	<p>▶ <i>Avoiding</i> accidents by leveraging advanced traffic analytics and machine learning algorithms to predict and prevent accidents,</p> <p>▶ <i>Shifting</i> towards smart transportation alternatives, such as the integration of autonomous vehicles and efficient public transit systems to reduce reliance on traditional, accident-prone modes of transport.</p> <p>▶ <i>Improving</i> existing traffic infrastructure through technologies like smart traffic lights, real-time monitoring, and responsive signage, thereby improving overall road safety and efficiency.</p>
<p>▶ <b>Petty Crimes</b> also known as minor criminal offenses (typically non-violent), can lead to various problems, such as diminished community safety and well-being, which can overtime reduce the economic vitality of an area.</p>	<p>▶ <i>Avoiding</i> petty crime through the implementation of advanced surveillance technologies, such as smart cameras with real-time analytics, to proactively identify and prevent incidents of petty crime.</p> <p>▶ <i>Shifting</i> traditional enforcement towards community led neighbourhood watch programmes and mobile applications, that can enable residents to report and share information about suspicious activities.</p> <p>▶ <i>Improve</i> law enforcement response times by leveraging smart communication systems and mobile technologies for quick and efficient deployment of resources. Implement data-driven strategies for resource allocation, allowing law enforcement agencies to continually improve their approach based on evolving patterns of petty crime.</p>
<p>▶ <b>Gambling</b> problems include addiction leading to mental health challenges, financial strain, and potential involvement in crime. The disruption extends to families, with strained relationships and issues of neglect, impacting community stability.</p>	<p>▶ <i>Avoid</i> gambling through general enforcement, and by using predictive analytics to identify individuals at risk of developing gambling problems based on behavioral patterns, allowing for early intervention and support. In the case of online gambling implement geofencing and location-based technologies to restrict access to online gambling platforms in designated areas.</p> <p>▶ <i>Shift</i> using smart applications and digital platforms that provide real-time information on responsible gambling practices, odds, and resources for those seeking assistance, shifting towards informed and mindful participation.</p> <p>▶ <i>Improve</i> by creating a centralised database that facilitates information-sharing between gambling operators, healthcare providers, and support services to improve the identification and tracking of individuals seeking help.</p>
<p>▶ <b>Human trafficking</b> – a severe violations of human rights, compromising public safety, and</p>	<p>▶ <i>Avoid</i> human trafficking by implementing advanced analytics and machine learning algorithms to analyse data from various sources, including social media and online platforms, to identify patterns and potential indicators of</p>



<p>undermining the social fabric of communities.</p>	<p>human trafficking. Utilise smart surveillance systems equipped with facial recognition and license plate recognition technologies at key locations to track and identify suspicious activities.</p> <ul style="list-style-type: none"> <li>▶ <i>Shift</i> by developing mobile applications and digital platforms that empower the community to report and share information related to potential human trafficking incidents anonymously. Establish a centralised communication hub for law enforcement, social services, and NGOs to collaborate and share information in real-time, shifting towards a more integrated and responsive approach.</li> <li>▶ <i>Improve</i> by enhancing coordination and information-sharing among international law enforcement agencies through secure and interoperable data platforms to improve cross-border tracking of traffickers. Invest in education and awareness campaigns using digital media to educate communities about the signs of human trafficking and encourage reporting.</li> </ul>
<ul style="list-style-type: none"> <li>▶ <b>Drug abuse</b> contributes to crime, violence, and strained healthcare systems, creating economic burdens through increased costs and demands on social services. The impact extends to families, leading to breakdowns and disruptions, while educational challenges and homelessness may result.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Avoid</i> through the implementation of predictive analytics to identify and address potential areas of drug abuse, allowing law enforcement to intervene proactively. Utilise smart surveillance systems and sensors to monitor public spaces and detect suspicious activities related to drug trafficking or consumption.</li> <li>▶ <i>Shift</i> through public awareness campaigns using digital platforms and social media to educate communities about the dangers of drug abuse and promote healthier alternatives. Implement mobile applications that provide information on substance abuse treatment centers, support groups, and counseling services.</li> <li>▶ <i>Improve</i> by establishing a centralised data hub that facilitates information-sharing among healthcare providers, law enforcement, and community organisations to improve coordination and response to drug-related incidents. Leverage wearable technologies and smart devices to monitor and track individuals in recovery, providing personalized support and early intervention if signs of relapse are detected.</li> </ul>

EDUCATION	
Challenge / Problem	Solution
<ul style="list-style-type: none"> <li>▶ <b>Lack of technological tools to support teaching practices</b> hampers modern teaching practices, limiting interactive and engaging learning experiences for students and hindering educators' ability to leverage</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Avoid</i> – securing funding for essential devices and infrastructure through NGOs, provincial or central government units.</li> <li>▶ <i>Shift</i> – embracing open-source and affordable technologies.</li> </ul>

innovative teaching methods for enhanced education outcomes.	► <i>Improve</i> – provide continuous teacher training to enhance digital literacy and effective integration of technology into the curriculum.
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PUBLIC SPACE	
Challenge / Problem	Solution
<p>► <b>Lack of pedestrian walkways</b> poses safety risks and hinders pedestrian mobility, leading to increased vulnerability to traffic accidents and discouraging active and safe pedestrian commuting. This can also contribute to traffic congestion as pedestrians may resort to using roadways.</p>	<p>► <i>Avoid</i> via urban planning strategies that prioritise pedestrian-friendly infrastructure.</p> <p>► <i>Shifting</i> to alternative modes of transportation such as cycling or public transit.</p> <p>► <i>Improve</i> by retrofitting existing roads to incorporate sidewalks and crosswalks, enhancing pedestrian safety and accessibility.</p>
<p>► <b>Footpaths encroached by parked vehicles and street vendors</b> leads to pedestrian congestion and safety hazards, forcing people to walk on roadways. This encroachment not only obstructs smooth pedestrian flow but also poses risks of accidents as walkers navigate through vehicular traffic, undermining overall urban mobility and safety.</p>	<p>► <i>Avoid via</i> strict enforcement of parking regulations and designated vending zones, and ensuring clear pedestrian pathways.</p> <p>► <i>Shift</i> by encouraging vendors to relocate to designated areas through incentives.</p> <p>► <i>Improve</i> via urban planning that prioritises wider footpaths and alternative vending spaces, promoting safe and accessible pedestrian environments. This approach aims to mitigate congestion, enhance pedestrian safety, and create a harmonious coexistence between pedestrians, vendors, and vehicular traffic.</p>
<p>► <b>Lack of night-time illumination</b> – poses significant safety concerns, increasing the risk of accidents, crime, and pedestrian mishaps due to reduced visibility. This lack of illumination also creates an unwelcoming environment, impacting community well-being and deterring nighttime outdoor activities.</p>	<p>► <i>Avoid</i> by implementing stringent lighting standards to ensure adequate illumination in public spaces.</p> <p>► <i>Shift</i> to adopting energy-efficient and smart lighting solutions to reduce environmental impact while enhancing visibility.</p> <p>► <i>Improve</i> by upgrading the existing lighting infrastructure, together with maintenance practices.</p>
<p>► <b>Lack of urban green infrastructure</b> contributes to diminished physical and mental well-being, depriving residents of recreational areas and opportunities for relaxation. This also exacerbates environmental issues, such as inadequate climate regulation, impacting overall urban resilience and sustainability.</p>	<p>► <i>Avoid</i> via stringent land-use policies to prevent further reduction of existing green areas.</p> <p>► <i>Shift</i> by integrating urban green infrastructure into urban planning strategies, promoting rooftop gardens, vertical greenery, and community gardens.</p> <p>► <i>Improve</i> by retrofitting existing spaces with green elements, enhancing biodiversity, and creating accessible and inclusive green areas.</p>
<p>► <b>Lack of public furniture and facilities</b> creates discomfort and inconvenience for residents, hindering their ability to engage in outdoor activities and social interactions. This deficiency also limits the inclusivity and accessibility of public spaces,</p>	<p>► <i>Avoid</i> by implementing strict urban design standards to ensure the integration of adequate amenities in public spaces from the outset.</p> <p>► <i>Shift</i> by promoting partnerships with businesses or community groups to sponsor and maintain</p>

restricting opportunities for relaxation and community engagement.	public furniture, encouraging a collaborative effort in enhancing communal spaces. ► <i>Improve</i> via periodic assessments and upgrades to existing public facilities, ensuring they remain well-maintained and responsive to the evolving needs of the community.
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### **Session 5: Wrap-Up and Recommendation**

The forthcoming and concluding section present recommendations for prospective next steps to propel smart city initiatives in Cambodia. These suggested actions are intended to inspire ongoing dialogue, recognising that, in subsequent stages, concrete Smart City recommendations will be formalised and documented in the *Smart City playbook*.

1. **National Smart City Strategy** – as a first step, it would be worthwhile updating and integrating the sub-national level strategic Smart City interests into a Cambodian National Smart City Strategy in collaboration with key stakeholders, outlining specific goals, milestones, and measurable indicators. This should align with Cambodia's broader development objectives and integrate considerations for inclusivity and sustainability.
2. **Regulatory frameworks** – at the national level, Smart City regulatory-related frameworks will also need to be developed and updated to support smart city initiatives. These should address the legal and ethical considerations related to data privacy, cybersecurity, and the responsible use of emerging technologies.
3. **National Smart City Platform & Forum** – next, a national-level platform (or hub) should be developed where all relevant Smart City publications, datasets, pieces of training and talks, project updates, and news items are centralised. This should also include a space for networking, interactive discussions, and knowledge sharing. This platform will serve to facilitate knowledge-sharing, resource pooling, and joint initiatives to leverage collective expertise for effective smart city implementation. This platform can draw inspiration from the existing ASEAN Smart Cities Network (ASCN). Tentative name: *Cambodian Smart Cities Platform*.
4. **Multi-stakeholder Collaboration** – to encourage dialog and the pro-active use of the *Cambodian Smart Cities Platform*, collaborative partnerships will need to be formed between national and sub-national government units, private sector entities, academic institutions, regional networks (e.g. ASEAN Smart Cities Network), and civil society organisations. This will require stakeholders to meet periodically at in-person or online events.

5. **Capacity Building & Training** – the development and deployment of Smart City initiatives will require extensive capacity building and training. This will require delivering Smart City and topic-specific training programs to build the capacity of government officials, urban planners, and technology professionals involved in smart city projects. The trainings should focus on enhancing their understanding of emerging tools and technologies, as well as best practices for effective implementation. All relevant material produced should be made available online on the *Cambodian Smart Cities platform*.
6. **Pilot Smart City Projects** – pilot and demonstration projects are crucial as they provide valuable insights and implementation experience. Designated provinces and municipalities should develop Smart City pilot project ideas, in line with the national strategy. To support these activities, the *Smart Cities Taskforce* should prepare user-friendly ‘pilot project ideation’ templates to be completed by local government units, and/o civil society organisations, and/or the private sector. The pilot project ideas should be reviewed and refined by the Smart City task force – which can offer guidance, stakeholder management, and preliminary financial and technical assistance for the production of more comprehensive *pilot project preparation studies* (PPS). As part of this process, early-on thought should be given on how to replicate and scale successful pilot projects.
7. **Citizen Engagement Initiatives** – any project or pilot project developed should prioritise citizen engagement through targeted awareness campaigns, participatory planning processes, and the establishment of feedback mechanisms. The Smart Cities Taskforce should be available to train and/or produce relevant material on how to manage citizen dialogs and workshops.
8. **Continuous Monitoring & Evaluation** – to support all the aforementioned recommendations, at the national level it will be necessary to establish a rigorous monitoring and evaluation framework for smart city initiatives. Regularly assess the progress of projects, analyse data on key performance indicators, and conduct reviews to adapt strategies based on evolving needs and technological advancements.
9. **Financial Mechanisms & Incentives** – All the previous recommendations are resource-intensive. Financial capital will be required to ensure the continued operations of the Smart City Taskforce and for the development of the Cambodian Smart City platform. The development of pilot projects and related initiatives will also require innovative financing mechanisms and incentives to attract private sector investments in smart city projects. Public-private partnerships and incentive structures that align with sustainable development goals should be considered. The various financing mechanisms and funds should also be formally documented and shared with all stakeholders. For instance, this could include but is not limited to the [i] Cities Investment Facility (CIF – UN-Habitat), [2] Cities Development Initiative for Asia (CDIA – ABD), [3] DeveloPPP (GIZ), [4] Global Environmental Facility (GEF), amongst many others.

## 5. Conclusion

Both orientation training workshops were successfully completed. The training objectives were achieved as demonstrated in the group discussions. The participants used the knowledge that they gained from session 1 as foundation information to engage in the discussion activity. As a result, comprehensive discussion insights and points were captured; recommendations were put forward to guide Cambodia's smart city journey, emphasising the importance of collaboration, citizen engagement, infrastructure investment, capacity building, and a regulatory framework to create sustainable and technologically advanced urban environments.