Coaches' Training on Climate Resilient Urban Design
Module 2

The Oriental Hotel, Legazpi City | November 20-22, 2018
Documentation Report

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Training Overview

This report documents the technical sessions and workshop outputs conducted in the course of the Coaches' Training on Resilient Urban Design Module 2 which took place at The Oriental Hotel in Legazpi City, Albay on 20-22 November 2018.The training was held as part of the Building Climate Resiliency through Urban Plans and Designs (BCRUPD) project of the United Nations Human Settlements Programme (UN-Habitat).

This three-day workshop aimed to build the capacity of the participants from partner national government agencies in integrating climate-resilient urban adaptation planning and designs in the institutional policies and regulations. It was attended by partner national government agencies, Housing and Land Use Regulatory Board, Department of Interior and Local Government, National Economic and Development Authority, and the city government of Legazpi. The participants engaged in lectures, site visits, and interactive learning activities over the course of the three-day training.

The first day of the training was dedicated to the discussions on principles and tools and approaches of climate resilient urban design. The second day focused on the site visit and workshop activities incorporating the guiding principles to development plans such as Comprehensive Land Use Plan (CLUP), and Local Climate Change Action Plan (LCCAP). The third day was dedicated to the Training of Coaches which summarizes the learnings of the participants from the training.

Day 1- November 20, 2018

- Mr. Reinero Flores from UN-Habitat formally opened the Coaches' Training on Climate Resilient Urban Planning and Design Module 2. He first welcomed the participants from the national and regional offices of NEDA, DILG, HLURB, and the participants from city government of Legazpi. He noted that this training will take off from module 1 and will focus on the policy side by understanding climate change challenges and by utilizing urban design plans and designs to address resiliency towns and cities.

- UN Habitat Training and Capacity Development Officer Mr. Dom-z Dizon facilitated an ice breaker where the participants get to introduce themselves to each other.

- Afterwards, Mr. Flores acknowledged Engineer Joseph Esplana, City Planning Development Coordinator of Legazpi City who delivered the welcome remarks. He recognized the presence of the participating partner government agencies. He also thanked UN Habitat for choosing the city of Legazpi for the venue to conduct the seminar. He also shared that even though Legazpi City is almost done with the Comprehensive Land Use Plan, they are still excited to participate in the training, noting that "learning, is a continuing process and we will not waste [the] opportunity we are getting" To conclude, he once again welcomed the participants.

- Mr. Flores added that they are planning to conduct a regional event in Legazpi with the delegates of Vietnam and Philippines on December 12-15. He then discussed the workshop objectives and the overview of activities for the next 2 days, emphasizing that the training will put weight on the importance of existing policy, guidelines and training process to review and enhance existing guidelines and regulations. He is also looking forward to a fruitful and participative workshop.

Technical Session 1: Review: Matrix of Principles

- Ms. Lara Togonon-De Castro facilitated the discussion on the review of guiding principles, criteria for adaptation options, and climate change considerations, highlighting that this session will be the jump-off point for the succeeding sessions and workshop activities.

- She underscored that the guiding principles encompass all steps of the climate action process. Ms. Laids Cea added that indicators are important to ensure that the principles are met. The guiding principles are discussed in more detail, including the indicators for mitigation and adaptation.

- After briefly reviewing the guiding principles, a video titled *Resilience: Anticipate. Organise. Adapt* was played. M. Cea encouraged the participants to reflect on the video, noting how it will be related on what they are going to do in the next 2 days.

- After the video presentation, participants volunteered to share their reflections. Ms. Camille Lelina of HLURB mentioned that she saw the different adaptation measures that were done by the shapes. Mr. Ibani Padao also shared same observation, adding that the shapes are participatory as they discussed with each other before identifying and acting on a solution.

- Ms. Cea discussed that shapes, like us, need to be flexible. She said, “once you have an objective, and you are willing to achieve it, this is the time where we do not only cope with the situation, do not only minimally adjust, but we can transform ourselves”. She further emphasized the need to be resilient and transformative to achieve risk resilience and to thrive. She also added that she liked how the shapes keep moving forward, noting that “no matter what the situation, they adjust themselves and thrive”.

- The next topic they reviewed is the adaptation criteria that can be used for screening options for climate actions. Ms. Cea highlighted that the guiding principles are for larger climate action plans and processes while the criteria are for screening climate actions. She also highlighted the criteria flexibility as a key criteria, reminding the participants to do actions that can lead to flexibility over time. She also noted that screening should be linked to objectives in climate action given the risks.

- Ms. De Castro discussed considerations for climate resilience, explaining that these considerations emanate from existing climate guidelines. She emphasized that the considerations should be used as a guidance to ensure that principles and strategies in the framework are included in the local plans. She also noted that considerations also emanate from higher policy guides but take form in the PPAs.

- To conclude, Ms. Cea highlighted the importance of strengthening and mainstreaming urban design with the lens of resilience and climate change.

Session 2: Linking Climate Resilience Principles to Local Development Plans

- Ms. Mia Quimpo introduced the topic for the second technical session, linking climate change resilience to different local plans. This session aimed to relate guiding principles to existing local documents. After discussing the learning objectives, she then enumerated the 12 guiding principles to review, noting that participants should keep these principles in mind.

- To start her presentation, she first asked for the 12-step CLUP process (See: ppt). After detailing the process, she then reviewed if the process follows all 12 guiding principles. For the CLUP process, all of the guiding principles were observed in the process.

- Urban design sector process was reviewed next. She briefly discussed the 10-step process (See: ppt) and compared it vis-à-vis the guiding principles. She remarked that the process is ambitious, inclusive, relevant, transparent and verifiable, and actionable. However, one limitation of the urban design sector process is that it does not specifically address the risk of climate change. In terms of the principle comprehensive and integrated, the urban design guidelines are limited also as it does not fully include climate actions yet. It is worth noting that the local plan can be improved to include climate change risk and vulnerability.

- Steps of the Climate change and Disaster Risk Assessment (CDRA) were also enumerated. CDRA was compared to see if it relates with the guiding principles. It is aligned as it met almost all principles except for ambitious.

- The next document reviewed is the Comprehensive Development Plan. The 8 steps were listed and discussed in detail. Ms. Quimpo asked the participants if the CDP deals with climate change, to which they answer yes. It is included in the ecological profile.

- Lastly, the Local Climate Change Action Plan (LCCAP) was reviewed. Aligned with the guiding principles because it is ambitious, inclusive, fair, comprehensive and integrated, relevant, actionable, evidence-based and transparent and verifiable.

- In summary, she noted that most of existing plans are aligned with the guiding principles for climate actions already, noting that it's good to see that the documents are aligned. She emphasized that urban design sector differs mostly because it focuses on urban design, and it is not specific to climate change. To conclude her presentation, she reminded the participants that the overarching guiding principles are there and they should be conscious of that to see all of the plans are integrated and aligned.

- Mr. Yen also added that doing this workshop helps the urban design sector process to promote and enhance the mainstreaming of climate resilience.

Technical Session 3: Climate-Resilient Urban Design: Tools and Techniques

- Ms. De Castro led the discussion of the third technical session, explaining that it will focus on how to optimize and enhance the tools and approaches to achieve the goals.

- She first defined what planning tools are for (See: ppt) and why is it important to enhance. She also underscored the importance of enhancing the steps/process to be viewed from climate resilience perspective and the tools must address wide range of climate scenario.

- To enhance/optimize analysis, climate change impact analysis needs to be integrated with local development framework. She emphasized the importance of development trends to complete development picture vis-à-vis climate impacts. Development trends also help in directing future directions to address development and climate concerns.

- Another way of assessing risks and climate change concerns is Event scenario matrix- an analysis that can be used to any number of scenarios for each event type. Ms. Cea noted that this matrix can look at the range of plausible futures, noting that it is important for urban planning and design so different scenarios can be explored.

- Other tools on decision-making and prioritization were also discussed:

    - Multi-criteria analysis- this analysis is for adaptation policy options. Ms. De Castro added that what is different in this matrix is that weights on each criteria/consideration can be assigned.

    - Risk evaluation matrix- this matrix define which of the risks are negligible, which risks are low, which risks will increase over time, what risks are moderate, and which risks are extreme. Ms. Cea noted that scenario matrix is important to complement this matrix as some risks increase over time.

    - Cost-benefit analysis- use to identify efficiency of any intervention. Ms. Cea noted that this can be used in weighing costs and benefits of situation, highlighting that objectives are important especially if you want to reap the most benefit out of the cost you are going to invest.

- Cost effectiveness analysis- used to find the least costly adaptation option. Ms. Cea said that this can be applied in assessing adaptation options in areas where adaptation benefits are difficult to express in monetary term.

- A table summarizing the discussion is presented. Ms. De Castro emphasized that it is important to identify possible enhancements to the existing tools, and what other approaches can be used in moving forward.

Design Considerations CRUPD in Various Contexts: Gallery Walk

- Mr. Thomas Stellmach explained the instructions for the activity. He reminded the participants to keep the guiding principles in mind and to think of how the design considerations can be applied in Philippine context.

- The participants were grouped into four and were randomly assigned to the galleries. Following the world café format, the groups were given 5 minutes to listen to the presentation of each gallery.

<u>Ayala Alataraz Masterplan</u>

- Ms. Lara Togonon- De Castro led the discussion for Gallery 1, noting that San Jose Del Monte, Bulacan observes strong private sector development. Because of this, the climate resilient initiative featured is private sector-led.

- The masterplan worked with the terrain to form a network of open spaces created from the slopes above 18 degrees. They also constructed rainwater garden as an urban design intervention. Ms. Quimpo added that the rainwater gardens help control flooding in the area.

<u>Plan Verde</u>

- Ms. Mia Quimpo discussed the Plan Verde of Mexico City. Ms. Mia Quimpo likened Mexico City to Manila, highlighting the same hazards such as heat waves, droughts, flooding, storms, and landslides both cities experience.

- It is worth noting that Mexico City is the first Latin American city to prepare a climate action plan which is structured in 7 thematic areas: Preservation, Habitability and Public Space, Water, Mobility, Air, Solid Waste, and Climate Change and Energy.

- The interventions anchored on the thematic areas involve different sectors. The cobenefits include heritage preservation, and more recreational amenities.

Burgos Circle

- Ms. Shailee Kothari discussed an example of a climate resilient public space. Found in the heart of Forbes Town, Bonifacio Global Circle, Burgos Circle features a public art called "The Trees".

- Aside from serving as a recreational park, the Burgos Circle is also designed to address flooding in the area. A basin for retaining flood water can be found underneath the circle.

- The catchment area has been proven effective in controlling flood levels on both EDSA and Kalayaan Avenue.

Marina Barrage

- Ms. Tayla Edmunds discussed the Marina Barrage, a man-made dam constructed for increasing water supply and for regulating the flood levels.

- The reservoir also stores rainwater. When the water level rises, they use the pump generators at the bottom to release the water into the sea.

- She also added that the headquarters that controls the dam also observed green design. The roof, which is often concrete, was turned into grass to reduce the building’s temperature by 3 degrees. Solar panels were also installed to power the building. The freshwater from the reservoir are used to reduce the temperature of pumping engines.

- Aside from its functional uses, the barrage was also designed to be a recreational area. Thus, this place drew a lot of tourists.

Baan Mankong

- Mr. Adam Naeem led the discussion on Baan Mankong, a housing program started by the Thai government in 2003 to address the country’s problem on informal settlement.

- Notably the most distinguishing feature of this program is its collective and participatory approach. It has involved communities which developed their sense of ownership and empowerment.

- On-site upgrading, on-site reblocking, and land sharing are the different types of urban development that are allowed in this program.

- With its success in Thailand, the collective housing program has been adopted in places beyond the country.

Guangming New District

- Mr. Thomas Stellmach presented an example of a climate resilient initiative in street level. As Shenzhen struggles with flooding, the Guangming New District project aims to absorb water from extreme preipitation.

- An open space on top of the grass area will allow water to flow to the drainage under the streets, where water retention tanks are located.

- Mr. Stellmach also pointed out how a combination of different solution can help address the flooding problem.

House for Trees

- Mr. Stellmach led the discussion on House for Trees, a project where houses were built like concrete boxes, designed to have trees on their rooftops. The Banyan trees were chosen for the roofs.

- The project aims to incorporate green design in the city. The exterior walls are made of in-situ concrete while bricks layer the interior walls. A cavity between the exterior and interior wall helps in preventing heat transfer. The planted trees on the roofs can provide shade. Also, it was designed to retain storm water to prevent flooding.

Day 2- November 21, 2018

Session 4: Presentation of LCCAP results, integration into CLUP and CDP

- Ms. Ladee Azur of Legazpi City reported the results of LCCAP of the city. Summarized below are the highlights of the presentation:

    - She first reported the summary technical findings based on climate trends issued by PAGASA. The climate issues Legazpi needs to address are increasing seasonal temperatures, deduction in rainfall, urban flooding and greenhouse gas emission issues.

    - She mentioned that the city experiences the urban heat effect, noting that it increases because of urbanization. She presented the map that details the built-up areas. She also presented the measures to negate the effects of urban heat island effect, highlighting that we can still do something as there are still many open spaces.

    - Another climate issue that Legazpi city experiences is the increasing amount of precipitation. Ms. Azur pointed out that in some months, rainfall is lower than the usual. But, in other months, there are extreme rainfall. She also noted how they see it as an opportunity as they can use the stored rainwater for their dry season.

    - To address greenhouse gas issues, they plan to implement various interventions, focusing on carbon sinks as starting point as it is “doable and practical”. For their future plans, they aim to use ghg inventory to influence legislative decisions. They also plan to draft an ordinance about this.

    - The prioritization criteria/tool they used are financial aspect, urgency, feasibility and social acceptability. For the streetscape, priority site is along Benny Imperial St. and Imelda Roces Avenue.

    - Mr. Kyan Punongbayan led the discussion for the urban coastal development area. The technical findings and climate issues enumerated were sea level rise, exposed areas of CBD, residential areas and impoverished families exposed, potential submergence of national road, and flooding and storm surges.

    - Data from PAGASA showed worst case scenario of 1.1m increase in sea level. Areas affected are in some portions of the Central Business District, PNR railway, Victory Village North and South, and residential areas near Tibu River.

- Since the impact areas are residential areas near the coast, the proposed land use is to retain marshy areas.

Site visit

- The participants were divided into 4 groups. 2 groups will visit streetscape and another 2 groups will visit the coastal areas.
- For the streetscape, sites will include SM Legazpi terminal, Benny Imperial and Imelda Roces intersection, open space area, business as usual streetscape, and tree shaded pedestrian lane.
- The coastal areas sites include: Binanuahan East Residential Areas, Victory Village North and South Residential Areas, Central Business District, Coastal Boulevard, and Tibu River Wetlands.
- The participants are tasked to answer the following site visit questions:
  - What are the positive and negative climate resilient design components did you observe in the sites?
  - What are climate resilient design components that were absent?
  - What interventions will you recommend applying the various principles of climate resilient urban design to address the climate related opportunities, issues, concerns and challenges?

Workshop 1: Issues, Opportunities, and Objectives

- For the first workshop activity, the participants were grouped into 4 to identify issues and opportunities based on their observations from the site visit. They should also identify possible planning and design objectives to address these issues and opportunities.
- The groups were given 10 minutes to prepare their outputs (See Appendix for encoded table).
- Mr. Peter Fraginal reported on behalf of Group 1- Streetscape. The following were the highlights of their presentation:
  - Some of the issues they have identified are alteration of natural features, clogged drainage, narrow sidewalks and absence of pedestrian lanes.

- Development of open spaces into green public spaces, public-private partnership, tourism opportunities and business opportunities are the opportunities that the group has noted.

- For the planning and design objectives, they have identified pocket parks, pedestrianization, urban renewal, and storm water management

- Ms. Cea commented that the group should clearly state which among the objectives and issues are directly linked to climate change and which ones are going to address mitigation, adaptation and cobenefits.

- For Group 2- Streetscape, Mr. Nico Dumas led the presentation. Listed below are the summary of their presentation:

  - Urban heat because of absence of tree cover is some of the issues the group has identified. The heat can also be an opportunity as it can be used for solar power energy generation.

  - Some of the measures they proposed to address these issues are to encourage stakeholders to invest in good design, and provide incentives for investors willing to invest in climate resilient projects.

  - He also noted that measures to address the issues should not be limited to open space, but to include informal settlements as well which will need political will.

- Ms. Eleanor Uboan discussed the outputs Group 3- Coastal. Summary of her presentation is detailed below:

  - One of the main issues that their group noticed is flooding, noting that the focus of objectives should be on flooding as it causes different issues in the area. They have also pointed out the presence of a slaughterhouse in the area, to which they recommend to look at ownership first before identifying relocation area. Lack of greeneries, lack of comprehensive assessment in designing the infrastructure projects, and informal settlements are some of the issues the group also noted.

  - Potential recreation, protection from storm surge and sea level rise are the opportunities that the group has identified.

  - For the planning and design objective, Ms. Uboan noted that it should focus on urban greening. She also mentioned watershed management and wetlands restoration.

- Mr. Carlos Jayoma reported the outputs of Group 4- Coastal. The following were the highlights of their presentation:

  - Their group observed the same issues with the previous group, adding that there is no cooperation between LGU on infrastructure, congestion of sidewalks and settlements are made of salvageable materials.

  - For the opportunities, the group identified LGU can do effort to repave easement, improve flood control, and potential for vertical greening at the Central Business District.

  - They have identified the promotion of walkability and bikeability at city central and boulevard and the resettlement of informal settlers to risk-free areas. He also added that it is important to strengthen policies relative to climate resilient infrastructure development.

  - Mr. Flores commented that on resettlement, it is better to conduct a dialogue to weigh options, noting that it might be possible adapt on site before concluding resettlement. Ms. Cea also added that the challenge is how to engage the informal settlers. She also emphasized that it will only be sustainable if the communities exposed are engaged in the discussion.

Workshop 2: Development of Design Priorities

<u>Group 2-Streetscape</u>

- Mr. Ranke Lim led the presentation of outputs for Group 2-streetscape, which is the first to present.

- On the issue of flooding, they propose to open up the creeks to cater the water discharge. To ease traffic, lay-bys are proposed. Bike paths and pedestrian are also part of the design.

- Another priority they discussed is the greening program to counter urban heat. Linear parks, aside from providing green open spaces, can also address flooding problem. Following the direction of the sun, tree cover will be planted facing south, and business establishments are encouraged to generate power using solar panels to lessen carbon footprint.

- Mr. Stellmach asked the site boundaries of the projects or area with highest impact. Mr. Lim answered that slope of the land is important in urban design, so they plan to address it holistically, starting from the mountain where the water flows down.

Group 1-Streetscape

- For the Group 1- Streetscape, Ms. Rose Bermejo of HLURB reported the group's outputs.
- After the group analyzed the issues vis-à-vis site boundaries, they have identified that the priority area is the intersection.
- One of their proposed measures is a 100 meter commercial development both sides, with 5-meter landscape setback to give way for green spaces.
- Another proposal is functional open space to break the monotony of intersection of roads. Proposal for all roads are uniform.
- Revival for the railway is another proposal. LGU need to negotiate with the Philippine National Railway to provide a 5-meter easement on both sides that can be developed into a landscape bike lane with transport interchange.
- They also envision a Danao Nature Park which will generate tourism and economic development.

Group 3- Coastal

- Ms. Tayla Edmunds from Arcadis led the presentation of Group 3- Coastal.
- The group categorized the proposed actions for each sites. Site 1 and 2 is for relocation, site 3 will be left on its own, and site 4 and 5 will be boulevard and waterfronts.
- To address the issue of flooding, the group proposed the relocation of informal settlements and to bring back the area to its natural form. They also recommended the construction of an esplanade along Macabalo River.
- For the CBD, they recommended that the main business activities should be on level 2 to adapt to the flooding. Some of the proposed measures to improve CBD are vertical greening, and water impounding area at Rizal Park.
- Since the construction of boulevard is complete, few things that can be redone. Since the walls are not high enough, they propose to build a higher wall and to consider other local materials to improve visual design.

Group 4- Coastal

- Last to present is Mr. Ibani Padao from Group 4- Coastal. The group identified 4 major sites. In site 1, they observed that rivers are silted and it experiences flooding. In site 2, the victory village which was turned into impounding station which pumped out water during extreme precipitation. Site 3 is on Central Business District and site 4 focuses on coastal boulevard development.

- Relocation is an option/least priority because the group does not know where to displace the communities.

- Their first strategy is to assess watershed. Since area is silted, they recommended looking at upstream and focusing on improving these areas. Next strategy is to develop water retention basin. Open spaces, which are previously wetlands area, can be turned into water retention basin.

- For site 2, this is the only site where relocation is needed because the area was turned into a water impounding station which may affect the settlements located near the area. In addition to that, they propose to clear the existing natural waterways and to reclaim the water channels. He also added that if pumping facility is not enough, they should add or improve the facility.

- For the CBD, make the city 'green' and walkable area capable of being commercial and tourism area. They also propose to close one lane to make it a walkable street because there were almost no sidewalks.

- For the last site, they noted that they proposed the most ambitious project. They propose to turn the open space into a water garden eco-park to protect wetlands. Second strategy is the development of windmills because winds are strong in the area. Since may windmills can be turned into attraction, this can provide economic opportunities for the locals.

Workshop 3: Policy Recommendations

- The third workshop aimed to examine existing guidelines and discuss what policy needs to be enhanced or introduced, with emphasis on climate actions.

- The participants were grouped according to their government offices/agencies: HLURB, NEDA, DILG, and city government of Legazpi.

Day 3- November 22, 2018

Presentation of Workshop 3 Outputs

HLURB

- Ms. Camille Lelina presented the summary of HLURB's discussion. She reported the group's policy recommendations, emphasizing the strict implementation of open space requirement and setback requirement on national building code as it is currently not widely implemented.

- On urban design, their group noted that there are no specific guidelines on how to formulate green building code at the local level. She also recommended to review possible revision requirements, such as increasing the 3-meter legal easement based on water building code.

- The group also proposed the automatic cancellation of all titles issued within wetlands, mangroves, and rivers.

- She also noted the importance consultation and approval from LGU to ensure conformance in the local plans to ensure the implementation of projects are in accordance with the local plans (CLUP and ZO). Their group also proposed sanctions to LGUs who will not properly implement the Zoning Ordinance.

DILG

- For the DILG, Mr. Carlos Jayoma led the presentation of outputs. He shared that one major observation that their group made is that infrastructures are not in accordance with local plans of LGUs.

- The group also proposed to update CDP so they can include the PPAs identified yesterday. In addition, the group proposed to revisit the vision and goals of LGUs to make sure they are aligned with CCA lens. Issues and opportunities discussed yesterday are recommended to be included in the ecological profile.

- Another recommendation is the preparation of local development investment programs. The PPAs identified in yesterday's workshop should be included in the plan for it to secure funding from LGU. He also identified other means to secure funding, such as DRRM fund and people's survival fund.

- He also discussed DILG's initiative in partnership with NEDA. The PDP-SDG localization aims to align the local plans of LGU to the Philippine Development Plan which follows the country's international commitment.

NEDA

- Mr. Kevin Vega reported the group's policy recommendations on behalf of NEDA, noting that their group looked into the alignment with PDP. For the chapter 3, the group proposed vulnerability reduction. Hazard maps of different agencies will be collated to provide easy access to all agencies and LGU. For chapter 12, they recommended to include innovative solutions in addressing housing needs.

- He also discussed the recommendations for Luzon Spatial Development Framework, explaining that some initiatives from NEDA mostly focus on national level.

- Ms. Hailey Meriel mentioned the National Land Use Act, noting that it is the policy that will be their guide. She pointed out that it was passed but it is yet to be enacted. She also noted that there is still no physical framework for the national level but they are already working on the formulation of the regional physical framework plan.

- Mr. Flores added that the Urban Development and Housing Framework is a good policy framework, emphasizing that its application must be maximized. Ms. Cea noted the synergies among the plans and frameworks at the national level needs to be localized for it to be implemented. She also highlighted that resilience can be used as an entry point to synchronize the plans.

City Government of Legazpi

- Mr. Rey Benedict Rico of legazpi led the discussion of the group's outputs. He first talked about the importance of the implementation of the Green Building Ordinance

- The group also proposed incentive packages to facilitate climate resilience and adaptation in development. Incentives or discounts from taxes will be given to businesses that use clean energy and observe green design.

- On the issue of relocation, the group discussed the proposed shelter plan which will include policies/regulations for transferring the informal settlers to safer areas.

- There will also be emphasis on climate resilience in environmental studies for projects. Feasibility studies on resiliency will be included in the preparation of the plan.

- The group also mentioned better coordination between NGAs and LGUs in project planning, implementation and monitoring, noting that LGUs knows the situation in the grassroots level so they will be responsible for localizing national policies. He also added that policies for LGUs to work together are also crucial.

- After the brief presentation, Mr. Flores commended Legazpi City for being one of the leading cities in spearheading climate resilient projects.

Training of Coaches

- Mr. Domz Dizon explained the instructions of the ToC exercise. He reminded the participants to keep in mind the lessons they have learned in the past 2 days as they will be applying it for this exercise. The objective of the activity is to inject climate resilience into urban design in order to have climate resilience driven development plans.

- The participants are grouped into 5 (HLURB 1, HLURB 2, DILG, NEDA, and Legazpi). They are tasked to identify what key messages regarding climate resilience are appropriate for different actors- decision-makers, technical people and the community. They will also identify the content, delivery and capacity development needs for the key messages for each actor.

- Ms. Cea added that key messages must be specific to climate change. She also reminded the participants to think as coaches for this activity.

- The groups are given 45 minutes to prepare for the activity.

<u>Group 1-DILG</u>

- For the DILG Group, Mr. Carlos Jayoma discussed the table (See: Appendix C for encoded table). The group identified five actors: national, technical people, LGUs, stakeholders, and the community.

- For the actors in national level, key messages include the allocation of funds for training, revisiting SGLG indicators to include quality of CDP and enjoining LGUs to update CBMS and use data in planning.

- For the technical people, the content will mostly be about the CDP guide. Likewise, the capacity development needs will be on the conduct of enhanced CDP training, conduct of module trainings on BCRUPD with UN-Habitat, and training on the integration of CDRA to CDP.

- Key messages for the LGUs will focus on updating existing plans with DRR-CCA lens, identification and implementation of PPAs based on current realities, and updating local CBMS and land use in the planning process.

- For both stakeholders and community, the key message will be on ensuring full participation during the project cycle, and support conduct of CBMS enumeration and data validation.

- Ms. Lara De Castro raised a question on what needs to be enhanced in CBMS that will drive climate resilience in urban design. Mr. Jayoma answered that there are existing indicators with regards to weather conditions. They plan to update it but for now, the existing indicators are encouraged to be used.

Group 2- NEDA

- Ms. Hailey Meriel led the discussion of the group's output.

- The group tried to see the connection between decision makers, technical people and the community.

- For the key message, they want the community to have strong cooperation and participation in local development planning process and project identification and improved awareness about climate resiliency. She also added that the community should be committed in implementing environment practices on their own, noting that small practices would have great impact as well.

- Inputs from community will be forwarded to the technical people. She emphasized the need for technical people and community to work hand in hand in providing information for decision makers.

- For the decision makers, the key message will be policies or programs that will promote climate resiliency. According to the group, the content of the modules should be visual to show them what it looks like. Module should also inform them about the importance of integration of local initiative to the national level initiatives.

- Ms. Cea asked about the updates on NEDA's efforts on translating hazard maps into risk impact maps. Ms. Meriel answered that NEDA is currently working on exposure database that includes natural hazard and climate hazards, noting that it is rather focused on natural hazards.

Group 3- Legazpi

- Mr. Rey Benedict Rico presented the outputs on behalf of their group.

- Key message for decision makers will include updates from PAGASA. He also noted that orientation seminar for CEO, councilors, department heads on the adoption, implementation, and policy formation will be the capacity development needs for this level.

- For the technical people, key message will be international exposure to learn from the experiences of successful implementers of CCA/DRRM. Modules will include networking, coordination and linkages with CCA/DRRM sciences. Training on 3D modeling project and fund sourcing are the capacity development needs in this level. He also noted that one of the biggest challenges the LGUs face is to look for funding for climate resilient projects.

- Key message for the community level will focus on information and education campaigns. The content will be CCA/DRRM initiatives in school curriculum and the Involvement of professional organizations, academe, land developers and EnPs in CCA/DRRM.

Group 4- HLURB 1

- Ms. Abeth Bandojo delivered the report of Group 4- HLURB 1.

- Key message for decision makers include the prioritization and support of programs and projects to climate resilience and to build awareness on the general principles on climate resilience thru urban design. For content, focus will be on the basics of climate resilience, emphasizing that it should be laymanized. For delivery, decision makers prefer short presentations and discussions.

- For the technical people, key message will include project prioritization conducted in the technical approach, such as cost-benefit analysis. For the content, best practices on climate resilient, particularly on urban design and facilitation and moderation for public engagement. Site visits and case studies are better because they observed and experienced it first-hand.

- Content for the community will focus on ‘climate resilience for dummies’, emphasizing that they will not participate in projects unless they fully understand it. Capacity development needs will include community mobilization for active participation in the implementation of climate resilience PPAs so they would know how to mobilize their people to participate in various undertakings pertaining to climate resiliency in urban design.

Group 5- HLURB 2

- Mr. Harvey Villegas discussed the outputs of their group.

- For the decision makers, the key message will focus on the use climate guiding principles in all legislative and executive actions and decisions. The content will include profile, projections, and climate impacts to help the decision makers understand better. Orientation on urban design is the capacity development needs for this level.

- The integration of climate resiliency in planning as well as the linkages and hierarchy of policies will be the key message for the technical people. Content for this level will include decision areas, focusing on risk maps, vulnerability and exposure maps and modules on urban design.

- Key message for community level will be on increasing the awareness on climate change and its impact to the community and preparedness on different hazards. For the delivery, the group identified site visits on best practices on urban design and public consultation or assembly, noting that barangays usually hold assemblies twice a year.

Closing

- After the ToC time, Mr. Yen wrapped up the workshop, emphasizing that the modules are not only for enhancing the capacity building of technical staff of the partner agencies but also to enhance the modules and policy guidelines next year. He also mentioned that there will be more trainings and technical sessions next year that will be more agency specific. There are also on-going activities at the national level and activities in the local level, such as demonstration projects. Lastly, he invited the participants to attend the regional conference workshop in December.

- Ms. Lara De Castro also thanked the participants for a productive workshop. She also said that the outputs of the last workshop are going to be used for the

development of the modules. She also pointed out that the issues and specific areas in the policies and mandates mentioned were also noted.

- Ms. Eleanor Uboan thanked the organizers for letting her be a part of the Coaches' Training on Module 2. She also thanked UN Habitat for giving her the opportunity to meet people and learn from the workshop. She remarked that she also hopes to join the next training.

- Ms. Jovy Solarte likewise thanked UN Habitat for conducting the training which will greatly help them in assisting how to design urban areas as climate resilient. She also reminded the participants to use the lessons from this training to apply to CDRA because that's what they need in LGU. Lastly, she thanked the participants for actively participating in the training.

- Mr. Rey Benedict Rico thanked UN Habitat for choosing Legazpi as the venue for this training. He also looks forward to the completion of the trainings so they can start mainstreaming climate- resilient projects.

ANNEXES

- **Encoded tables for Workshop 1**

Group 1- Streetscape

Issues	Opportunities	Possible planning and design objectives
Wetlands becoming urban	Open spaces that can be developed into green public spaces	Parklets/ pocket parks
Alteration of natural features	Availability of vacant lands or urban expansion	pedestrianization
Poor/clogged drainage	Public-private partnership e.g. provision of space	Mixed-development use
Ill-designed/ protruding manhole cover and uncovered manholes	Tourism opportunities	Urban renewal
Few planting strips	Economic opportunities to big investors i.e. increase local revenues	Height limit/ visual corridor
Blocked waterways		Provision for vertical parking
Encroachment of easement		Permeable pavement
No/narrow sidewalks		Streetside infiltration bed
Non-functioning traffic lights		Arcaded walkways
Absence of pedestrian lanes		Stormwater management
Lack of parking spaces		Green infrastructure integrated into arcades
		Wi-fi accessibility

Group 2- Streetscape

Issues	Opportunities	Possible planning and design objectives
Easements -building code violations	Introduction of sidewalks and bike paths	Use of solar lamps and other alternative lighting fixtures
Conversion of lands	Introduction of green building ordinances	Tree planting and introduction of pocket parks and linear open spaces
Monitoring during construction	Government and private intervention	Permeable walkways and pathwalks
Drainage	Introduction of open spaces	Project monjitoring after completion of the project
Buildings on top of the creeks	Encourage stakeholders to invest in good design	Tax deductions and incentives for investors investing in climate resilient projects
Flooding	Water catchment areas incorporated in the future development	Solar panel energy generation
Absence of open spaces		Address issues on informal settlers
Absence of tree cover		
Sidewalks		

Group 3- Coastal

Issues	Opportunities	Possible planning and design objectives
Lack of greeneries/ spaces for greeneries in old CBD	Potential recreation	Urban greening
Presence of slaughterhouse near river/boulevard	Protection for storm surge and sea level rise	Adopting the principles of climate resilient urban design
Drainage system in old CBD	Opportunities fro redevelopment/new development in vacant and ISF areas	Comprehensive drainage plan and design
Lack of unpaved seasides in coastal boulevard	Alternate access road	Sewerage treatment requirement
Siltation observed in river channels		Project assessmen to be

		comprehensive
Solid waste disposal and septase		Watershed management
Infra design did not consider natural topographies		Walkable streeets
Lack of comprehensive assessment in designing the infra projects		Wetlands restoration
Informal settlers		Green open spaces
		Relocation of informal settlers

Group 4 – Coastal

Issues	Opportunities	Possible planning and design objectives
Institutional arrangement	LGU efforts on reclaiming easement	Redesign pak at CBD to be a multi-purpose facility
Easement not observed	San Roque Coastal Area Sea wall buffers SLR, tsunami, storm surge Used to facilitate evacuation during calamities Can divert traffic congestion	Promotion of walkability and bikeability at city central and boulevard
Narrow road- issues in terms of parking areas at CBD	Tibu River Only marshland within the urban area Marshland serves as natural filtration of storm water/ sewage from CBD	Resettlement of informal settlers to risk-free areas with compost facilities and support livelihood opportunities
Legazpi CBD Perennial flooding No area for spatial development Commercial area	There is already a flood control that can be improved	Dap-dap settlement Design a housing project wherein its foundation is constructed o stilts Enact local ordinance requiring property owners to construct building more than 2 storeys, giving members of family to escap calamities

Dap-dap settlement Perennial flooding Susceptible to tsunami, strom surge, sea level rise Houses made of salvageable materials Majority of houses has no land tenure No town planning	potential for vertical greening at CBD	San Roque Relocate city slaughterhouse Adopt permeable pavement design Urban greening along north boulevard to cool temperature of the vicinity
Victory Village Urban spread converging on hazardous area Susceptible to sea level rise, storm surge, tsunami Conflict on land uses		CBD Legazpi Design vertical greening along existing buildings
Tibu River Marshlands converted itno commercial/residential area		Passage of LGU regulations and ordinances relative to green building/vertical greening
Presence of slaughter house at boulevard		Strengthen policies relative to climate resilient infrastructure development
Informal settlement at brgy. victory village North prone to several hazard		

B. **Encoded notes for Workshop 2**

Group 1- Streetscape	**Group 3- Coastal**
- Implement easement policy for open green space - Business owners to collaborate on designing greenspaces on their plots - Stricter waste/garbage policies - Tax incentives for investors investing in climate resilient projects - Formalize informal settlements by providing base framework - Installation of solar panels - Require buildings to incorporate rainwater catchment Linear park - Utilize water ways - Encourage people to walk - Link church and CBD - Propose alternative access road Open green park - Joggers pathways - Walkways - Develop for business opportunities	- Community friendly-retain coastal atmosphere - Permeable walkways - Redesigning of boulevard - Relocation --- - resilient housing - redesign drainage systems to accommodate water - business adaptation plan - issuance of regulation on Green initiatives - heat and floods - Water impounding at Rizal Park --- - Flooding - Mangroves and water collection pond - Relocation of informal settlers - Conversion to its natural form - Multi-use parks/ walk or bike paths - Construction of esplanade
Group 2-Streetscape	**Group 4- Coastal**
- Danao Nature Park - Solar streetlights - Commercial strip - Pocket park - Transport interchange	- Eco-park - protect wetlands - Alternative windmills --- - Water retention facility - Drainage development - Walkable streets - Greening --- - Redirecting outfall - Waterways clearing - Relocate victory village - Impounding station facility --- - Watershed management

C. **Encoded tables for TOC**

Group 1- DILG

Actors	Key messages	Modules		Cap development needs
		Content	Delivery	
SILG, Usec, Asec, regional directors	- allocation of funds for training - issuance of policies enjoing compliance o the adoption/ implementation of existing laws - enjoin LGUs to update CBMS and use data in planning - revisit SGLG indicators to include quality of CDP			
Technical people CO RO/PO Fieldmen	- availability of time - commitment - openmidnedness	CDP guide	Trainings, webinar, video collaterals	- conduct of enhanced CDP training - conduct of module trainings on BCRUPD with UN-Habitat - training on the integration of CDRA to CDP
LGUs	- update existing plans with DRR-CCA lenses - identification and implementation of PPAs base on current realities - commitment to strict			

	implementation/ adoption of policies and guidelines - allocation of funds - update local CBMs and use in planning process			
Stakeholders	- ensure partnership with LGUs on interoperability - full participation during the project cycle			
Community	- support conduct of CBM enumeration and data validation			

Group 2- NEDA

Actors	Key messages	Modules		Cap development needs
		Content	Delivery	
Decision-makers	Passage of policies/ programs on climate resilience	- Best practices on climate resilience - Benefits of climate resiliency to local economy - integrate local initiatives to national/regional initiatives	- Consultative meetings with officials and local leaders - green building - walkability/ bikeability - use of permeable	Orientation/presentation Study visit
Technical People	- Provide evidence-based information/analysis which will serve as inputs in decision-making - To be able to inform local	Economic implications of investing climate resiliency and possible	Trainings and workshops FGD with specific sector	Mainstreaming of DRR-CCA

	community on climate resilience	approaches		
Community	- Strong cooperation in participating to local devt planning - Improved awareness in climate resiliency - Commitment to implement envi practices contributing to climate resilience at community level	Participatory planning	Consultations, IEC, video presentations	Participatory mapping

Group 3- Legazpi

Actors	Key messages	Modules		Cap development needs
		Content	Delivery	
Chief executive/ Sanggunian Bayan members	- Inputs of latest IPCC/PAG-ASA/ PHIVOLCS - updates on CCA/DRRM	- enactment of climate resilience ordinances and resolutions - climate resilience mechanism as part of regular operation management and implementation of LGU	Public hearing/ concurrment of special bodies/ technical inputs - deliberation at the SP - enactment of laws	- orientation seminar for CEO/councilors/ dept heads on the adoption, implementation, and policy formation
CPDO/ CEO/ CAO / CDRMO/ CSWDO Technical Staff	International exposure to learn from the experiences of successful implementors of CCA/DRRM	Networking/ coordination/ linkages with CCA/DRRM	Development of software/applicati on on the internet for easy access of	- Attend trainings/ seminars/ forum/ convention - training on 3D

		sciences	information	modeling project packaging/ fund sourcing
People in the hazard areas/ schools/ barangays/ stakeholders	Information and education campaigns	CCA/DRRM initiatives in school curriculum	Development of CCA/DRRM comics/ postermaking contest/ sound tracking infusion of CCA/DRRM modules in sibika at agham subjects	Impact of CCA/DRRM to ordinary people/ disaster rapid assessment/ lesson learned from around the world
Land developers/ business sectors		CCA/DRRM School		
Professional organiations and academe		Involvement of UAP, PICE, academe, land developers and EnPs in CCA/DRRM		

Group 4- HLURB 1

Actors	Key messages	Modules		Cap development needs
		Content	Delivery	
Decision makers	- prioritize and support programs and projects to climate resilience - build awareness on the general principles on climate resilience thru urban design	- best practices on climate resilience - awards that can be achieved - climate resilience for dummies - funding mechanisms	- 15 mins. Video presentation - 15 mins interactive discussion - field exposure - league meetings/ orientation	- understanding climate resiliency thru urban design
Technical people	- project prioritization should be conducted the technical - ensure vertical-horizontal linkages - citizen/ community engagement - should be knowledgeable and adept in presenting evidences and information	- facilitation and moderation for public engagement - tools and techniques - best practices on climate resilient urban design	- site visits/ case studies - training workshops - on the job training	- climate financing - training modules and manuals Skills on project evaluation and screening - facilitation sills for trainors - short course on urban design and development - basic skills on effective communication

Community	- know their roles and contribution in building climate resilience - investment in local development activities	- climate resilience for dummies - potential impacts of climate change - best practices on climate resiliency	- video presentation	- basic knowledge/ understanding on CR thru UD - community mobilization for active participation in the implementation of climate resilience PPAs

Group 5- HLURB 2

Actors	Key messages	Modules		Cap development needs
		Content	Delivery	
Decision-makers	- Widen awareness on climate resilient urban design - be a climate resilient champion - Use climate guiding principles in all legislative and executive actions and decisions - Apply climate lens in all legislative and executive decisions	- primer and decision areas - profile, projections, trends and climate impacts - funding and legislative req. - best practices- case study, sitevist	Multi-level consultative meeting - National and local	Orientation on UD
Technical people	- Integrate climate resiliency in all multi-level planning - Linkages/ of hierarchy policies	- Environmental/ legal basis for climate issues - Decision areas – risk maps, vulnerability/expos	- maps- Gallery walk - video presentations - Lectrures through ppt,	- training/ workshop on UD - application opf climate les in all planning activities - different modes

		ure maps - UD modules	videos, role play	of presentation
Community	- stakeholders' participation in planning and decision making - increase awareness on climate change and its impact to the community - preparedness on specific hazard	- DRA, CCVA, Technical findings - participative planning - Exposure, risk, decision areas - Urban design issues and opportunities - Hazards and impacts on community	- video presentations - site visits/ best practices on urban design - public consultation/ assembly	- information and education campaign