What is Eco2 Cities?
Eco2 Cities is a World Bank program that supports cities and metropolitan regions in achieving greater ecological and economic sustainability together, with the objective of increasing human and social well being. It provides cities and metropolitan regions with a framework to plan, manage and invest in sustainable urban systems that are integrated, multi-functional and beneficial in the long term. The Eco2 Cities framework is shaped around 4 key principles.

Principle 1: A City Based Approach
This principle focuses on the need to enable and strengthen the leadership, capacity and decision making abilities of cities and their regional planning institutions. It also emphasizes the need to enhance the unique historic, cultural and ecological resources of each city.

Principle 2: A Platform for Collaborative Design and Decision Making
This principle focuses on compounding the benefits of urbanization by leveraging and combining the unique capacities and resources of all stakeholders. It supports an inclusive and fair process of urban development and decision making that involves and empowers all stakeholders.

Principle 3: A One-System Approach
Looking at the city as a whole – this principle strives to create a “resource regenerative and multi-functional” city. Sectors, policies, and budgets need to work together across spatial scales and administrative jurisdictions – as do natural and man-made systems – so that the city functions effectively as one system.

Principle 4: An Investment Framework that Values Sustainability and Resilience
This principle focuses on broadening the scope and extending the time-frame within which policies, plans and investment options are assessed for costs, benefits and risks. It supports decision making approaches that value natural, cultural and social capital.

The Eco2 Cities approach is currently being implemented in the East Asia Region through three levels of engagement:

Strengthening the Cities’ Long Term Vision -
The city’s agenda for socio-economic development is based on its long term vision. This is further supported by master plans, sectoral plans and specific goals and objectives for overall transformation. The objective of the following activities is to strengthen the vision development process, coordinate the various plans, and support the city with specific strategies to achieve its goals.

- **Holistic City Indicators:** To truly take a long-term, integrated and collaborative approach, city leaders, together with other stakeholders, need to ask: “what do we actually mean by sustainable development for our city or metropolitan region, and how does this complement other objectives?” Developing a long-term vision collaboratively, and agreeing on a set of unique home-grown sustainability indicators often leads to a broader discussion and a more realistic understanding between stakeholder groups on i) the important trade-offs that do need to be made between stakeholders, and also between social, ecological and economic objectives at the city and regional level; and ii) the synergy and scope for integration and co-benefits across policies, sectors and budgets, at different spatial scales (district-city-region), and among different interest groups.

- **Adaptive Management Strategies.** Once a vision plan is clearly articulated with the city’s long term goals, the next step is developing an adaptive management strategy. The first objective of the strategy is to provide a basis to implement the long term vision. The second objective is to manage the inevitable string of unanticipated shocks and opportunities that present themselves over the implementation period of the long term vision. Long term plans inherently face the challenge of not being able to anticipate the future accurately. In this global age, cities are now impacted by a range of interlinked variables that are far beyond their control – for instance a change in
currency policy in one country may impact the industrial prospects for medium sized cities in a range of other countries; or a few years of persistent drought might induce increased migration to a city that triggers an unanticipated increase in demand for shelter and services. Cities also need to prepare for urban resilience challenges such as: climate change; natural disasters; floods; and earthquakes. Many unanticipated shocks will need to be managed by alternate scenario planning, contingency options built into the implementation strategy, and ongoing learning from feedback loops.

- **Aligning Plans and Investments** – At a more specific level, the Bank can provide support on a range of thematic, sectoral and cross-sectoral issues, by applying the Eco2 Cities framework toward reorienting existing plans, projects and policies. Many cities have a range of planning documents, such as master plans, socio-economic development plans, infrastructure investment plans, which are typically produced by different departments at the local and national level. These plans often run on different time-frames, use different basic assumptions/data, are frequently not harmonized in their overall vision, conflict with similar plans of a neighboring local jurisdiction, and are implemented by different departments. Eco2 programs can focus on harmonizing these efforts. In the case of Vietnam, the team used “Charrettes” to bring together land use and transportation strategies to enhance quality of life and economic vibrancy with a long term view.

**Strengthening the Underlying Planning Systems** - The Eco2 Cities approach also provides a framework to strengthen the institutions, systems and process of urban management and planning in cities.

- **Eco2 City - Planning and Management Capacity Assessments** – If the change resulting from an Eco2 program is truly going to be sustainable, it needs to be embedded in programmatic support for a city’s core planning and management capacity. Towards this end, a key step will be to create a timeline and allocate budget for investing in a city’s core systems. It will also be important to consider institutional measures where needed. To prepare the timeline and budget, an initial assessment will focus on determining the city’s strengths and weaknesses with regard to: i) Data (what data is collected, how is data collected, what are the city’s overall data management systems); ii) Methods and Tools for Data Analysis (geographic information systems, material flow analysis, life cycle cost-benefit analysis, municipal finance management systems, and other integrated and long-term analytical methods and tools - how is data used and analyzed?); and iii) Application of Analysis to Decision Making (the use of data and analysis in alternate scenario development and evaluation for policy, planning and investment options). In addition to this assessment of systems, an institutional assessment will focus on staff capacity, skill and training. A crucial aspect will focus on urban governance and land management – to provide insights into the underlying political economy factors that shape planning and development. The urban governance analysis may also be done as a separate and more detailed task altogether.

**Catalyst Programs and Projects** - The Eco2 framework and methods can also be used in the design, preparation, implementation and evaluation of specific ‘catalyst programs or projects’ in a city or metropolitan area. This will entail an investment program that focuses on strategic and ‘catalytic’ programs/projects that have the potential of creating a ‘tipping point’ for the city in the direction of its long-term vision. Interventions at this level build on the upstream assessments and technical support provided by the program.

- **Investment priorities for capacity building** are based on the core city planning and management systems assessment, which provides a timeline and budget for enhancing capacity. The investments will focus on the implementation of the timeline and targets identified in the assessments, and serve to
build sustainable capacity for urban planning and management at the local level.

- **Investing in strategic infrastructure** will focus on core investment needs in a city. This might range from transport or infrastructure investments, to a comprehensive low income housing strategy, or possibly a waterfront redevelopment project. When applying the Eco2 framework to a project-level issue the aim is two-fold: i) to ensure that the Eco2 Cities principles are applied to the project; and ii) to ensure that the project is used as an entry point for the more systemic and long-term development objective.

**Eco2 Cities Application in Vietnam: Piloting Charrettes in Ho Chi Minh City and Hai Phong to Better Integrate Transport and Land-Use Planning**

The Bank’s urban and transport teams, supported through the Eco2 Cities Program, introduced the Charrette planning methodology to its transport operations in Ho Chi Minh City (HCMC) and in Hai Phong, Vietnam. The Charrettes substantially enhanced stakeholder coordination and ownership, identified key issues and solutions far earlier in the development process than is typically the case, and led to the development of innovative design concepts through a collaborative process.

**What is a Charrette?**

A Charrette is an intensive collaborative planning and design process that puts together key stakeholders (government, private sector, and civil society) to identify the key development issues and hash-out solutions through open discussions and exchanges of ideas. Charrettes are typically field-based, with the process lead by a facilitator skilled at bringing out the ideas and perspective of all stakeholders, while ensuring the dialogue is not dominated by any one. Charrettes typically are conducted in a short time frame to capture the benefits of intensive discussions and ensure full participation. The final feature of a Charrette is the use of highly graphic images (often design concepts are drafted, reviewed, and modified on the spot during discussions) to help all parties visualize the proposed concepts.

*Photo shows the original conditions along the canal of the HCMC Charrette study area. The green shaded area shows the ‘Green Transit Corridor’ study area – a strategic location.*

**Key Benefits:**

- **Rapid Results** - the intensive nature, open dialogue, and broad representation can produce results in 1 week that could typically take 1 year under more formal and sequential meeting settings.
- **Improved Understanding of Stakeholders’ Perspectives** - Charrettes improve the working relationships and understanding between the various stakeholders. They are often the starting point for forming strong and sustainable working groups and communities of practice. Further, the final proposal accounts for the preferences and constraints of all of key stockholders.
- **Ownership** - Ideas and results are developed together, thus all stakeholder share in the success and failure of the end product.
- **Creative Ideas and Better Choices** - Charrettes tap the talent and ideas from a wide group of stakeholders. Meanwhile, a good facilitator helps bring out the best from all participants, while ensuring there are 'not too many cooks in the kitchen'. But the end result substantially benefits from the diverse perspective, technical knowledge, and a collaborative review process that keeps concepts feasible.
The HCMC Greenway Charrette

The Challenge: HCMC requested the Bank’s partnership to assess the opportunities for developing a Bus Rapid Transit (BRT) corridor in the center of the city. City officials wanted to optimize the use of the proposed transit investments, and use the BRT as a catalyst project to redevelop a previously blighted canal area into a ‘green transit corridor’. The goals were to develop a shared vision and find design and policy solutions to enhance mobility, better utilize and capture the value of the surrounding land, improve the quality of life of the residents, and make the corridor a signature destination of the city by creating an attractive environment with an infusion of new public spaces.

Ideas are hand drawn during discussions to help participants visualize designs and concepts.

The Process: The Bank, together with the Department of Transport, Department of Planning and Architecture, and PADDI (a French planning organization from Rhone-Alps seconded to HCMC) held a Charrette in July 2011. The event lasted 5-days, identifying the key concepts, design considerations, sighting of BRT stations, and strategies to optimize the built space to support transit use. A team of architects and planners (from Lyon Town Planning Agency and Deso Architects) guided the discussions. Skilled architects sketched the participants’ concepts and ideas during the dialogue. Being able to visualize the concepts through the sketches greatly added to the quality of discussion. These sketches were later refined - and the final renderings used to represent the group’s shared vision of the Greenway.

The Results: The end result was a concept design, created through a consensus-based process that had strong ownership from all stakeholders. Collectively, they developed new (and feasible) ideas that went beyond the level of details and scope of common practice. The key design concept was a high-density BRT transit corridor surrounding a lower density ‘island valley’. The island valley created the residential and recreational spaces, focused on mixed-use riverfront development.

Key elements of the concept include (i) an enhanced focus on transit and pedestrian oriented
design, (ii.) greater emphasis on green space and public areas, (iii.) identifying opportunities for private sector development and contribution to the transit greenway, (iv) improving connectivity to transport hubs/modes and key destinations, and (v.) using good design to create iconic and vibrant station areas.

Through the process, strong working relationships were formed between departments that typically did not work well together before. A measure of the success was that it helped the planners think like transport engineers, and transport engineers think like planners.

A practical result was that the key design and development concepts were identified far more up-stream than in the typical practice. This allows for major design considerations to be assessed during the concept stage, versus developed during the feasibility stage – or as often is the case, during implementation.

The results from the Charrette have already been incorporated into the preparation of the Feasibility Study, and the city has prepared a draft Area Development Plan of the corridor.

City officials were impressed with the rapid results and effectiveness of the exercise, and they identified additional transit corridors they plan to enhance through the Charrette process.

The Hai Phong Urban Transport Charrette

How can small and medium cities in Vietnam, with fiscal constraints, enhance the quality and use of their developing bus transit networks through better design and supporting land-use practices?

Objectives: The Hai Phong Charrette (April 2012 – ongoing) supported the Bank financed Hai Phong Urban Transport Project. The Charrette mobilized international experts (urban design, transport, and architects) to help the city ‘re-design and
retrofit’ an underutilized bus corridor. The concept would integrate improved passenger amenities, signaling, pedestrian access, and strategic placement of stops. It would also use the inclusion of green space to improve transit usage, develop a better urban environment, and optimize the use of land surrounding the transit corridor. The concepts and outcomes from the Charrette are proposed to be financed through the Hai Phong Urban Transport Project.

The Challenge: The challenges of providing quality public transit services are different for small and medium cities in Vietnam, than in HCMC or Hanoi. In smaller cities, initially, the low initial demand for public transport and the high entry costs are a significant barrier.

In medium sized cities like Hai Phong that have new or underutilized bus public transport systems, the low densities and lack of a ‘public transit culture’ create barriers to efficiently provide a higher level of service quality necessary to attract and retain riders. However, if they continue to expand without developing public transit investments and integrated land-use planning practices, mobility will affect their competitiveness and the quality of life. Moreover, it marks a big missed opportunity for these cities to develop in a more efficient way.

Responding to the Challenge: Part of the challenge to address through the Hai Phong Charrette was to recognize the unique constraints (capacity, fiscal, demand, barriers to entry, etc) to provide public transport in small and medium sized cities and to develop a pilot concept for one corridor. The pilot would demonstrate how good design and planning can enhance the quality and demand for public transit services, but does not have to significantly increase the costs. Further, it would show the potential of transit-oriented design to better utilize and capture the benefits of the surrounding land.

Sharing Knowledge: The results from the Charrette are being finalized and will soon be presented to the city. The Eco2 Cities program will document the unique lessons learned from conducting the Charrette in Hai Phong and develop a best practice manual for small and medium sized cities in Vietnam, focusing on (i.) low-cost improvements to planning station areas and amenities to enhance bus service quality through good design, (ii.) concepts and methods to enhance transit and pedestrian oriented design, and (iii.) and using transit investments to capture the value and potential of the land in the transit corridor.

To read more about the Eco2 Cities program, you may access the book, and additional material at: www.worldbank.org/eco2

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