



# INSIDE STORIES

## on climate compatible development

Climate & Development  
Knowledge Network

May 2014

### Key messages

- Sustainable tourism development in the city of Hue, Vietnam is heavily influenced by the national government framework. This higher-level policy guidance was adapted to suit the city's local conditions.
- A participatory local process resulted in the idea of promoting 'garden houses' as a viable climate mitigation option while also enhancing tourism. This has yielded a number of environmental, economic and cultural benefits for Hue.
- Apart from the environmental benefits provided by garden houses, their promotion paved the way for leveraging other low carbon development initiatives such as the use of non-motorised transport.
- The direction of Hue's development highlights the importance of a vision for sustainable growth and more importantly, of a champion who will guide the city toward its vision.
- This very positive local story nonetheless highlights some of the tensions and trade-offs around green tourism: namely, that local initiatives may address emissions in situ, but not the emissions produced by tourists as they travel to the locality.

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## Advancing green growth in the tourism sector: The case of Hue, Vietnam

**Hue is a small but rapidly growing city in central Vietnam, famous as a cultural centre. Tourism plays a key role in the city's socioeconomic development and also has negative impacts on its environment and natural resource base. The goods and services associated with tourism such as travel, infrastructure development and operation, and production and consumption of goods are energy-intensive. The 'Sustainable Urban Tourism through Low Carbon Initiatives' project led by the Asian Institute of Technology, Chiang Mai Municipality, and Hue Centre for International Cooperation explored how the carbon footprint of tourism could be reduced, while maintaining and even enhancing local development benefits. This brief explores the opportunities and trade-offs encountered by government agencies, residents and tourism-related businesses in the City of Hue as they navigated the choices available.**

Hue is a medium-sized city of 340,000 people, covering an area of some 71 km<sup>2</sup> in central Vietnam.<sup>1</sup> A cultural and tourism hub, Hue is famous for its ancient capital area, pagodas, cuisine, gardens and overall cityscapes. Hue is also regarded as the Festival City of Vietnam. It has successfully hosted seven nationally and internationally renowned festivals, attracting millions of tourists.

Hue's strategic location in Vietnam's central economic region and in the axis of the East–West economic corridor of Myanmar, Thailand, Laos and Vietnam has played an important role in the

city's tourism and economy. The city is growing rapidly: its gross domestic product (GDP) increased by 12% in 2012.<sup>2</sup> The tourism sector alone contributed approximately 48% of GDP; revenues from the service sector were worth around US\$250 million in the same year. The city now welcomes around 2.5 million tourists annually, of whom 1.5 million are international tourists.<sup>3</sup>

### Impacts of tourism

The Hue Centre for International Cooperation, together with the municipality of Chiang Mai, Thailand,

and Asian Institute of Technology undertook research on ‘Sustainable Urban Tourism through Low Carbon Initiatives: Experiences from Hue and Chiang Mai.’ Funded by the Sustainable Mekong Research Network (SUMERNET) and CDKN, the objective was to assess the levels of greenhouse gas emissions associated with the tourism sector in Hue in 2011, using the Bilan Carbone tool®. The project also explored strategies for low carbon development while simultaneously creating green job opportunities for men and women, particularly the poor.

Table 1 summarises the greenhouse gas emissions produced by Hue’s tourism sector. The largest sources of emissions are travel, freight, infrastructure and assets. In total, Hue emitted around 492,200 tons of carbon dioxide equivalent (CO<sub>2</sub>e) from products and services associated with the tourism sector in 2011.<sup>4</sup>

### City initiatives and support mechanisms

At the national level, Vietnam has acknowledged the adverse impacts of tourism on the environment. Sustainable tourism is a key component of the United Nations Strategic Orientation for Sustainable Development in Vietnam.<sup>6</sup> The first Vietnamese national conference on sustainable tourism development was held in Hue in 1997 and at this the Vietnamese Government adopted the principle of sustainable tourism development. The concept recognised the importance of conserving tourism resources, the natural environment, biodiversity and cultural values, as well as the need for increased involvement of, and benefits to, local communities.<sup>7</sup>

The City of Hue has introduced a new tourism model that follows sustainable development principles, under its ‘Hue - A Homeland of Happiness’ plan (2010–2020). Among other priorities,

the plan emphasises the cultural heritage of Hue, as reflected in its old infrastructure and buildings, and stresses the need to use the core assets of Hue’s culture and history to benefit the local economy.

The Sustainable Urban Tourism initiative described here was one example of the City’s commitment to low carbon growth and development. Programmes and strategies for low carbon development are often technology-oriented without consideration of the impact on social welfare.<sup>8</sup> This is especially true for the tourism industry because human resources development is often largely focused on hospitality businesses without considering broader employment opportunities.<sup>9</sup> The City of Hue cultivated a multi-stakeholder partnership among researchers, local authorities, private companies, non-governmental organisations (NGOs) and local residents to identify suitable options for reducing greenhouse gas emissions and to create income-generating opportunities for the poor.

**Table 1: Summary of greenhouse gas emissions by Hue’s tourism sector in the year 2011**

Sources	Emissions (tons of CO <sub>2</sub> e)	Share (%)
Travel	377,617	76
- within the city	6,683	1
- by visitors from other cities within the country and abroad	370,934	75
Freight	58,571	12
Property (infrastructure and buildings)	19,423	4
Energy (electricity and fuel)	17,805	4
Direct waste (food, waste and waste water)	12,889	3
Other (air conditioners, materials, fertilisers etc)	5,895	1
<b>Total</b>	<b>492,200</b>	<b>100</b>

Source: Kumar et al. (2014)<sup>5</sup>

The greenhouse gas emissions profile of the tourism sector was presented to stakeholders for discussion; and based on the consultation, the project partners assessed possible mitigation options vis-à-vis their feasibility and local employment potential. The promotion of Hue’s garden houses was identified as the most viable mitigation option to address the twin goals of emissions reduction and job creation, noting that garden houses could increase the locals’ income and offer unique recreational and cultural experiences to the tourists.

## Garden houses – local people’s choice for green growth

Garden houses form part of Hue’s cultural heritage and number around 2,000 in total. They offer a kind of microcosm of nature within a house: house, garden, people, plants and water co-exist in a small urban space. Garden houses are all privately owned and few are open to tourists. Garden houses were originally owned by the city’s ruling mandarins, but these days, have been acquired by those people who can afford them. Many have either been sold to owners outside the province or have been destroyed. It is now prohibited to sell or destroy the garden houses. For tourists visiting Hue, garden houses offer a relaxing natural setting within city limits, and the experience of traditional, local culture.



Fronts of traditional Hue garden houses. Photo: ICLEI Southeast Asia.

Most importantly, garden houses can help reduce greenhouse gas emissions in situ, in various ways. First, they offer a carbon sink function in contrast to denser, conventionally modern forms of urban housing. Second, garden houses can manage household waste through composting and/or using garden waste as animal feed, thereby reducing the amount of waste going to landfill. At the city level, since garden houses produce fruits and vegetables, they help reduce emissions from freight that would otherwise transport these products.

Thua Thien Hue Provincial Department of Culture, Sports and Tourism estimated that if the city authority promotes garden houses, it could attract 20 to 40% more visitors. At the same time, if the city authority and garden house association encourage these visitors to use cyclo or bicycle to

travel to garden houses, it could replace 127,950–255,900 kilometres per year traveled by local petrol vehicles; this would translate to a reduction of 100–200 tons of CO<sub>2</sub>e per year even with the estimated increase in visitors. This would constitute a reduction of 4–9% of greenhouse emissions from land-based transport within the city, while there will be higher tourism related economic activities.

Garden houses can contribute to local income since the owners and garden workers are able to use the fruits and vegetables grown for both household consumption and commercial purposes. Garden houses hire gardeners, and workers in restaurants if they open one. Many employees in garden houses are middle-aged

women, who find it difficult to find better-paid jobs, and would earn better incomes than male garden house employees. Promotion of garden houses can also create jobs for other tourist-related operators. Most of the garden houses are located just outside the central area of Hue where public transportation is infrequent. Thus, garden houses provide additional income to non-motorised vehicle operators (e.g. cyclo drivers) who transport tourists and locals to visit them.

Of course, an increased influx of tourists to Hue would generate more greenhouse gas emissions beyond city limits and would likely outweigh the decrease in emissions from non-motorised transport within the city. This is a larger-scale issue of

consumer choice beyond city borders that would require national or international policy intervention to address – and is indicative of the trade-offs involved. Certainly, from local policy-makers' point of view, the garden houses solution delivers climate compatible development benefits in their jurisdiction. This tension is explored further in the 'implications' section below.

### Enabling factors for local sustainable tourism development

A number of factors stimulated the city authorities' interest in a sustainable tourism approach:

**A viable business model.** City authorities found success in marketing

the 'green' aspects of the city on an early experimental basis – and in so doing, proved the viability of this business model. The City of Hue successfully offered tours entitled 'Impression of Green Hue City' and 'Garden Houses' by cyclos and bicycles, incorporating garden house visits. These visits by non-motorised transport provided a meaningful cultural experience to tourists that may prove an attractive, marketable asset.

**Dual benefits for climate mitigation and income generation.** The most important impetus for Hue city to promote garden houses is its dual potential to reduce greenhouse emissions and to improve the income generating capacities of the poor. As indicated by the emissions results (Table 1), transport and freight have the

**A garden house is an interesting place to visit and you can learn more about the history, culture and environment of Hue.**

– Mr. Truong Quang Trung,  
founder of the Hue city tour

largest share of emissions in Hue's urban tourism sector. Through the promotion of non-motorised transport, good waste management practices, and in-house production of fruits and vegetables, garden houses have the potential to reduce emissions. Garden house promotion can increase the income generating opportunities of the poor who operate non-motorised transport, e.g. cyclos, and who are able to sell garden house products.

**Public-private partnerships.** Local NGOs such as the Centre for Encouragement of Self Reliance (CESR) have been providing seed capital and low interest loans for the people of Hue to expand business, investment and other opportunities for socioeconomic enhancement. The Hue City for International Cooperation (HCIC) has responsibility for assisting, advising and directing the activities of CESR. CESR had already disbursed loans to garden house families in Huong Long and Kim Long wards for refurbishment, development and maintenance of garden houses. This project was important in raising the awareness of Hue's city leaders of the potential of public-private partnerships to support garden houses.

**Champions.** Any venture is likely to succeed if it has the interest and support of a top authority. Obtaining

#### Key outcomes of the Sustainable Urban Tourism initiative

**Catalytic effect on city's commitment to strengthen sustainable tourism.** With the project's completion, the City of Hue has recommended options for preservation and further development of garden houses for tourism purposes in one of its policy statements and has committed to further action. The policy statement was approved by the vice-chairman of Hue's People's Committee. The initiative encouraged the city to strengthen its commitment to sustainable urban tourism.

**Increased public awareness.** The perception of low carbon initiatives by local people, as well as garden house owners and other stakeholders, has been enhanced through a number of activities organised by this initiative. The activities conducted (e.g. meetings, survey) and the dissemination materials (e.g. project brochures in the local language) have improved awareness of the importance of garden houses in particular, and the need to reduce greenhouse emissions and address climate change in general. The involvement of media as partners increased the initiative's profile. The meetings were broadcast on the local news channel, which may have contributed to the swift actions by local authorities on the issue.

Source: AIT (2013)<sup>11</sup>

buy-in from a top authority to the process is important for securing institutional backing and wider support. The vice-chair of the People's Committee of Hue was keen to push for environmental projects. He sees the potential to use this project to further his policy emphasis on 'green Hue'.

### Implications and lessons learned

- **Administrative reform is needed to facilitate change.** The City of Hue already had a policy for preservation of its garden houses that was not very effective, mainly due to the very slow administrative process. Although re-examination and re-evaluation of the current state of Hue garden houses is underway, many garden houses are in danger of falling into disrepair as the owners do not receive support for upkeep in a timely manner. As Mrs. Pham Thi Tuy, of Phu Mong, Kim Long Ward, said of her 110-year-old garden house: "it would cost billions [of Vietnamese dong] for preserving and repairing [a garden house]; if anything, we can only get 100 million. It is impossible to fix it." This suggests that not only is more concerted city regulation for the preservation of garden houses required, but that additional resources from public or private investors are also needed to underpin a longer term conservation programme.
- **Building and sustaining partnerships with other organisations.** The initiative followed the principle of building partnerships with NGOs and other stakeholders, which has reaped rewards and allowed for some replication. The City of Hue has now



A traditional pagoda in Hue: another part of the tourist landscape.  
Photo: ICLEI Southeast Asia.

started working closely with a local NGO, CESR, by encouraging it to disburse loans to garden houses in other wards (Phu Cat, Thuan Hoa, Vy Da) so that these areas may also be able to enhance the income generation potential of their garden houses.

**Sustaining the win-win situation.** For the city of Hue, garden house promotion is driven by the economic perspective of increasing tourist numbers. However, the type of tourism that Hue city is promoting is eco-tourism – for example, they

promote the use of bicycles and small boats to transport tourists, and garden houses fit very well into this framework of an eco-city. Therefore, even though the main purpose is to increase tourist numbers, the promotion of garden houses can contribute to reduction of per capita greenhouse gas emissions within city boundaries, and to a certain extent, it can reduce the total greenhouse gas emissions in situ, even with increases in total numbers. Even so, eventually the total greenhouse gas emissions will increase, given a certain volume of tourists.

There is a dilemma here: a superb success in garden house promotion can increase the number of tourists to the extent that greenhouse gas emissions will be higher than the status quo. Further efforts are needed to explore other avenues to decrease greenhouse gas emissions overall and to measure the overall carbon footprint of the sector, e.g. to obtain robust measurements of the carbon storage value of the garden houses, of the reduced food miles, and reduced city transport emissions, compared to potential increases in the emissions from tourists traveling to the city. This initiative was crucial in generating the interest of Hue city authorities around emissions measurement and implementation of climate mitigation measures. The result was a re-confirmation of their commitment to act on such issues.

- **Generating positive spin-offs.** The project has generated positive spinoffs in the form of follow-up projects and activities in Hue. For instance, city authorities have proposed a project titled 'Environmental improvement and greenhouse gas emissions on traditional market in Hue City, Vietnam'; in order to sustain the effect of the initiative, generating more such positive follow up is important.

### Endnotes

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