

Topical Note 3 – Sustainable Living Environment

Purpose of the Topical Note

The main purpose of the Stage 1 Public Engagement of the “North East New Territories New Development Areas Planning and Engineering Study” is to enable the public to appreciate the Study objectives and key issues relating to the development of the Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling New Development Areas (NDAs), and to express their visions for the NDAs. It is the intention to solicit public views through discussion on four topics, namely, strategic roles of NDAs, people-oriented communities, sustainable living environment and implementation mechanism. This topical note is prepared to provide background information on sustainable living environment with a view to facilitating public discussion on this topic.

1 Background

Most of our existing new towns were conceived at times of high development pressure and hence they were tasked to provide housing for the rapidly growing population. Similarly, “The Planning and Development Study on North East New Territories” (the NENT Study) commissioned in the late 1990’s, which identified Kwu Tung North (“KTN”), Fanling North (“FLN”) and Ping Che/Ta Kwu Ling (“PC/TKL”) as suitable New Development Areas (NDAs), was carried out during the time when we were facing vigorous housing demand.

In the light of slower population growth and housing demand than originally anticipated in the late 1990’s, the NDA proposals were shelved in 2003 pending further consideration on the need for strategic development areas in the Study on “Hong Kong 2030: Planning Vision and Strategy” (the HK2030 Study). The HK 2030 Study was completed in 2007. It recommended to proceed with some NDA developments to address the long-term housing demand and provide employment opportunities. The Chief Executive announced in his 2007-2008 Policy Address the planning for NDAs as one of the major infrastructure projects for economic growth. Subsequently, the “North East New Territories New Development Areas Planning and Engineering Study” (the NENT NDAs Study) was commissioned in June 2008 to formulate a revised proposal for the KTN, FLN and PC/TKL NDAs.

In revisiting the NDA proposals, the HK2030 Study provides the following strategic planning guidance - *other than providing housing land, NDAs will also provide employment. NDAs offer an alternative choice of living through the development of lower-density buildings in a quality living environment, with convenient access to mass transportation and community facilities.* The HK2030 Study also aims to adhere to the principles of sustainable development to balance social, economic and environmental needs as well as to take on good resource management. This means striving for higher quality and efficiency while being prudent in resource utilisation and encroachment onto greenfield land in the planning for major development.

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Accordingly, the basis of this Study is very different from that of the previous NENT Study which was tasked to identify housing for a target population of 180,000 people. Rather, a key approach of the current Study is to determine land use requirements based on public aspirations for a better living environment. The current Study will also place greater emphasis on environmental protection, reconsidering previous development proposals within ecologically sensitive areas (e.g. Long Valley/Egret foraging areas).

The public is invited to comment on the following contributing factors to achieving sustainable development in the NDAs as well as suggesting new ideas.

2 Sustainable Development

The principle of sustainable development has long been regarded as an important consideration for planning. There is an appreciation of the need to conserve existing resources in the planning process, as well as an emphasis on striking balance between economic, social and environmental objectives. This Topical Note will particularly focus on environmental objectives. In practice, this calls for the integration of the existing ecological, cultural heritage and landscape heritage resources with environmentally friendly design.

3 Conservation of Ecological, Natural, Landscape and Cultural Heritage Resources

3.1 Conservation of Ecological, Natural and Landscape Resources

Key planning principles for creating sustainable living environment include the protection of natural environment and biodiversity; and capitalising on climate and natural setting in designs. However, a balance must be struck between nature/landscape conservation and land use demands, including the provision of land for housing, employment, community facilities, infrastructure, etc. This Study will determine an appropriate level of development in the NDAs, including the location of development areas, the amount of sprawl and necessary buffer areas for ecologically important areas.

Ecological key issues include:

- Quality and distribution of existing wetlands;
- Ecological enhancement and conservation of Long Valley and Ho Sheung Heung, which is one of the priority sites identified for enhanced conservation under the New Nature Conservation Policy; and
- Increased recognition of the conservation importance of Long Valley and Ho Sheung Heung which are recognised locally as a Priority Site for Enhanced Management under the New Nature Conservation Policy and internationally by Important Bird Area (IBA) designation.

The key issue related to landscape resources is the potential loss of landscape assets as a result of development. Visual intrusion on the natural landscape should be minimised through the preservation of ridgelines, visual corridors, woodscapes, water bodies, etc.

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3.2 Conservation of Cultural Heritage Resource

The Heritage Conservation Policy calls for Government ‘to protect, conserve and revitalise as appropriate historical and heritage sites and buildings through relevant and sustainable approaches for the benefit and enjoyment of present and future generations. In implementing this policy, due regard should be given to development needs in the public interest, respect for private property rights, budgetary considerations, cross-sector collaboration and active engagement of stakeholders and the general public.’

There is one declared monument, namely Hau Ku Shek Ancestral Hall, and several graded historic buildings located in Kwu Tung North. In order to provide full and effective protection and utilisation of heritage resources of all types within the Study Area, a comprehensive conservation framework is needed. Innovative ideas are invited on creative approaches to preserving historically and culturally important resources and in expanding their use and benefit for the public.

4 Environmentally Friendly Design

In response to rising public aspirations for a better living environment, more emphasis will be placed on environmentally friendly and energy-efficient designs and sustainable infrastructure.

4.1 Sustainable Design for Urban Form

In the past, many communities were planned with private cars, rather than people in mind, and a key objective was to maximise the development potential of sites for housing and other land uses. In order to build sustainable communities that support a higher quality of living and that support walking, cycling and other modes of environmentally friendly transport, the following measures will be considered for the NDAs.

4.1.1 Urban Design and Eco Living Environment Considerations

The design objectives include reducing undue pressures on the natural environment, balanced carbon-emissions through the maximisation of greening opportunities, designing places to encourage travel on foot, by bicycle and public transport, hence to minimise carbon emission, and saving of resources including energy, water, materials and undisturbed lands.

The existing visual context and topography of the NDAs, including background ridgelines, areas with high visual quality and view corridors to important landscape features, will be integrated into the overall planning of the NDAs to enable retention of existing unique locational attributes. Similarly, the future planning of the NDAs should help to preserve important ecological sites, heritage sites, landscapes, fung shui and landmark features, as well as any defining contextual elements.

The sustainable design of neighbourhoods and communities should enable sufficient building separation and breezeways for natural ventilation and the dispersal of pollutants, sunlight penetration to pedestrian areas, and optimal areas for greening.

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4.2 Environmentally Friendly Transport Measures

Transport infrastructure could be a major cause of environmental impacts and therefore should be carefully planned to accord with our overall objective to build sustainable communities. Devising environmentally friendly transport measures will hence be a major task of the upcoming planning and engineering review studies.

4.2.1 Sustainable Design of Transportation Systems

Integration of environmentally friendly transportation systems into the overall land use framework can be achieved by implementing a rail-based development which encourages railway (e.g. East Rail and the Lok Ma Chau Spur Line) as a main mode of transport, with feeder bus system. Such land use planning and traffic modal co-ordination will maximise access to and encourage journeys by public transport, thus in turn minimise the use of private cars within developments.

By minimising construction of major roads and by facilitating pedestrian interchanges between environmentally friendly modes of public transport, people will be less reliant on private vehicles and road-based transport. To ensure that the street-level is pedestrian-oriented, consideration can be given to creating comprehensive pedestrian and cycle networks, providing depressed roads/junctions, and locating major distributor roads at the periphery of the built areas. Environmentally friendly modes of transport (e.g. light rail, monorail, trams, electric shuttle bus, etc.) should be considered.

4.3 Resources Saving and Energy-Efficient Measures

Following Government's policy of improving the environment and introducing energy saving at different levels, the Study will explore ways to achieve the energy efficient objective and to promote a low carbon economy (an economy based on low energy consumption and low pollution) in the engineering design in developing the NDAs. For example by examining the scope for the re-use of treated effluents in the NDAs, encouraging non-fossil-fuel-based transportation, including walking and cycling, classifying and recycling waste, and facilitating the use of renewable energy (such as solar energy) and recycled water for new developments at the NDAs.

There are various energy-efficient measures which have been successfully adopted, such as district cooling systems to supply chilled water to buildings for centralised air-conditioning and wind turbines for electricity generation. Due considerations have also been paid to green building design aimed at reducing energy consumption. To further promote energy efficiency and conservation, and to reduce carbon dioxide emissions substantially in the development of NDAs, we will examine various measures vigorously and adopt suitable and feasible measures in the development of the NDAs.

The proposed NDAs fall within the sewage catchment boundary of Shek Wu Hui Sewage Treatment Works (STW), which needs to be upgraded to cater for additional flows from proposed development. There would be an opportunity for possible reuse of effluent for flushing and irrigation. The objective is in-line with WSD total water management strategy by 2030. However, final decision of effluent reuse will depend upon the outcomes of two pilot schemes currently on-going at Ngong Ping and Shek Wu Hui STW.

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5 Your Views

To facilitate the next step of work, we hope to know your views and aspirations with regard to sustainable planning of the NDAs. For example,

- How can we optimise the values of Ecological, Natural, Landscape and Cultural Heritage Resources in the NDAs?
 - Cultural & Heritage Trail
 - Wetland Enhancement
 - Others

- What options can be considered for sustainable urban design in the NDAs?
 - Building-free zones for the protection of ridgelines
 - Separation between buildings
 - Location of view corridors
 - Fung shui and landmark features
 - Others

- What options can be considered for sustainable design of transportation systems in the NDAs?
 - Intensifying development around the rail station and public transport interchanges
 - Better modal coordination between public transport facilities, residential areas and Government, Institutional & Community (G/IC) facilities
 - Discouraging uses of private cars
 - Promoting “Park and Ride” facility (or “Park and Walk”/ “Cycle and Ride” facilities near train station)
 - Environmentally friendly modes of transport (e.g. light rail, monorail, trams, electric shuttle buses, etc)
 - Reducing the number of road junctions
 - Use of sunken/depressed roads at major junctions
 - Divert traffic to peripheral roads
 - Others

- What options can be considered in resources saving and energy-efficient measures?
 - Provision of comprehensive cycle and walking networks
 - Use of renewable energy (such as solar energy)
 - Use of recycled water
 - Recycling and waste management
 - Others