

Rural Villages to the Urban Villages

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Thimphu as a System of GNH Neighbourhoods?

“Neighbourhood” conjures the image of a community of people living in a defined area. It implies that the area is subsistent, to an extent, with the basic necessities available within easy reach. Today, this would be grocery, meat, and vegetable shops, restaurants and cafeterias, clothing and convenience stores, perhaps a minimart. It would include ATM and postal outlets, tailors, hair salons, bookshops. An ideal neighbourhood would include recreation facilities for exercise and sports, green open space like parks, children’s playgrounds, walking paths and bicycle trails. Add to this schools, health centres, pharmacies, and even community police. Stretch the imagination and this could all be within walking distance of a range of diverse families and housing.

Bhutan’s capital city, Thimphu, once had a dream of being a pristine valley of such neighbourhoods, nurtured in balance with nature and steeped in culture. Bonded by the values of Gross National Happiness, these self-sustained and self-contained “urban villages” would coexist with a strong sense of friendship and cooperation. Not only would the city be among the most beautiful in the world, the people would be contented and happy.

But, after several decades of rapid development, during which urban growth was influenced more by pressure than plans, the dream is becoming a nightmare. This became stark when Bhutan went into lockdown on August 11. The immediate dilemmas were as basic as the delivery of food and essential items. And emergencies, including medical services, were impeded when delivery vehicles and ambulances could not locate houses and people because Bhutanese cities do not have coherent street and house addresses.

The COVID-19 trauma, however, has triggered a potentially dramatic turnaround in Bhutan’s dismal efforts, or lack of efforts, in urban development. Bhutan was shaken out of a decades-old malaise by the COVID-19 pandemic which brought home the hazards of a disorganised

system. When the first COVID-19 national lockdown was announced in the early hours of August 11, 2020, many people and government agencies were not prepared for the sudden implementation. People had not stocked essential goods and government agencies were still finalising preparations. As a result, delivery of essential goods was onerously slow with phone lines clogged and transport disorganised. Social media was rife with complaints.

Concerned that the logistical difficulties caused by the lockdown was complicating the coronavirus associated problems, His Majesty The King commanded a task force to coordinate a service plan for Thimphu. His Majesty The King advised the introduction of zones with clearly defined boundaries that could be easily identified by the residents, each zone providing basic essentials and services within walking distance. Residents carried time-bound cards that would allow them access without compromising health safety and also allow them some outdoor exercise.

All forms of media were extensively used to explain the system to the people and a call centre with 50 operators was established to coordinate and advise the people on how to access emergency and normal services provided to the public. The call centre handled 20,170 queries in 34 days, ranging from stranded people and overseas travel to vegetable supplies to the opening and timing of shops.

A City Exposed

The zoning experiment was a reminder of the disorderly growth of Bhutanese cities. The unplanned layout of parts of our towns forced residents to travel convoluted routes and prolonged distances every day. The lockdown was difficult because most people had to move outside their neighbourhood for work, to school, to shop, daily chores, or for leisure. This means inefficient transportation, traffic congestion and crowds, emission and pollution, waste of time and increased expenses. There are Taba residents commuting to Serbithang for work, children from Olakha studying in Motithang.

The sudden pause in daily routines revealed the absence of infrastructure and services within neighbourhoods and the *thromde* limits. There are no comprehensive data to map residential and commercial plots, buildings, roads, drains, water supply lines, power lines, sewer lines, telecommunication lines, footpaths, street lights, storm water drainage.

All this drove home the importance of public transport, reorganising administrative boundaries to plan land use and buildings, promote work places and residences, and commercial areas. More sophisticated cultures like urban farming (backyards, balconies, rooftops), open green spaces, parks, gardens, footpaths, bicycle paths, sports grounds within the neighbourhoods remain a distant dream.

A City Reorganised

Mobilising thousands of Desuups (the guardians of peace volunteers), the zoning exercise was a fact-finding mission and, therefore, important input for national planning for the longer term. Through this process, family information, household data, demographic patterns, details of buildings and shops, plots and topography, are documented along with many other features like the road networks, location of heritage sites, and monuments.

The design and implementation of zoning during the COVID-19 lockdown is an example of the science of town planning. In fact they are drawn from the concept of urban villages defined in the Thimphu Structure Plan, planned but not implemented in the complex growth struggle of a city.

But this confusion is the beginning of hope. This is why there is an exciting sense of anticipation that the aspiration of dream cities is not entirely out of reach. With His Majesty at the helm, Bhutan may be able to build a momentum from the vacuum of the COVID-19 crisis and find GNH in the 21st century urban growth.

The Vision

Even as it was introduced as an emergency measure to relieve the pressure on the people during an unforeseen calamity, the Royal initiative propelled future planning and development of urban Bhutan. The zone system implies a change from the concept of zones in conventional planning. In the past, a whole city was conceived with a commercial zone, residential zones, office blocks, and other distinct areas. Most of these are now compacted in each zone. The new Thimphu zones are neighbourhoods for planning on a much wider and more sophisticated scale.

There were many lessons learnt from the zoning system. Some zones had no shops. While some had shops, they did not sell essential goods like vegetables, medicines, dairy and livestock products, and other necessities. During the phased unlocking some gewogs had no access to services which were located in unlocked areas. The Thimphu Centenary Farmers Market was identified as a major risk so smaller vegetables markets were identified in different parts of the city. The co-ordination of Desuups as well as their catering had to be decentralised. Key agencies involved in preparing the future development plans for Thimphu are involved in the Zoning Task Force and the experiences and lessons from implementing the zoning system will help in planning future cities.

During the COVID-19 lockdown, each zone was meant to function independently, with essential goods and services, so that residents could remain in their own localities to curb the spread of the virus. Any spread of the virus could be contained with targeted response. If a lockdown was required it could be limited to a zone with positive cases. Such an approach would enable normal life in unaffected areas. Data on individual households would enable the Ministry of Health to monitor the situation.

Growing the Concept

His Majesty embedded in the zoning idea crucial elements like the postal code and street addressing system for Thimphu, features that have been discussed for decades but never implemented. After more than 60 years of planned development, Bhutan was unable to introduce an intelligible addressing system. Even as the city grew to more than 120,000 people, people identified local landmarks like the “three water tanks”, “double turning”, “shop No. 7”, “behind the *dzong*”, “below Changangkha Lhakhang”, and more recently, hotels in the area are used as landmarks to find people and offices. During the COVID-19 lockdown, delivering essential goods to families that should have taken 20-30 minutes, sometimes took more than two hours.

The malaise that characterises Bhutanese planning is a joke that is not funny. Thimphu residents are tired of someone paving the road, then someone else digging it up to lay water pipes, and someone else digging it up again for sewerage lines, and then someone with TV cables, followed by someone to lay fiber optics. Last year, auditors dug up the roads to check if the sewerage

manholes had indeed been placed under the pavement and these holes were only covered, months later, because Indian Prime Minister, Narendra Modi, was to drive by.

Into the Digital Age

The flagship “Digital Drukyl” project in the 12th Plan aims to stimulate a national focus on technology but what will it really take for Bhutan to achieve the Royal vision of becoming a “smart, flexible, responsive, dynamic and efficient society”? To truly be a part of the “Fourth Industrial Revolution” Bhutan must see a revolution in the mindsets and attitudes of officialdom, the business community, and civil society at large.

The task force looking at urban growth has been spurred by the Royal advice to adopt technology as a platform. Thus the inspiration to develop Bhutan’s first Geographic Information System (GIS) based mapping system. In the past, government agencies worked in silos, resulting in a number of parallel initiatives that did not come together. The Zoning Task Force consolidated work done by the Ministry of Works and Human Settlements (MoWHS) and the National Land Commission (NLC) prior to the COVID 19 pandemic and mobilised urban planners, GIS officials, and surveyors from different agencies to complete the mapping work.

Desuups and NLC staff visited most of the houses in Thimphu and collected information on the households and geo-coded the location of all the buildings. They interviewed local elders who had intimate knowledge about the history of Thimphu and local government officials to ensure that correct local names were used when finalising the names of the streets and allocating house numbers.

Instead of overlaying this geo-coded data on Google Map or maps.me, a team of specialists from the MoWHS and the NLC in coordination with the Department of Information Technology and Telecom (DITT), developed an indigenous application, DrukMap, as the platform on which the geo-coded data can be overlaid to create the GIS map for Thimphu. DrukMap will serve as a GIS platform for other applications to ride on. It will be a base map and relevant agencies can add other layers such as water supply, sewer lines, drainages, power and telecommunication lines, to build a comprehensive GIS database.

The map can be viewed online in real time, allowing agencies to provide and monitor their services. For example, with such a digital map in place, Bhutan Post will be able to roll out a proper postal code system for Thimphu and the rest of the country based on the zoning. Delivery of essential goods and services will no longer be a problem in case of future lockdowns. A team of Desuups has established Facebook pages for each zone in Thimphu to coordinate the establishment of facilities and delivery of services. More important, such a forum could unite the residents into a truly GNH community.

Beyond COVID-19

The solution to Bhutan's inertia stems from His Majesty The King who has invigorated a sluggish system into action. Besides coordinating an incoherent city traumatised by the unprecedented menace of the COVID-19 pandemic, His Majesty has literally transformed the response into a long-term strategy for national governance.

The GIS based DrukMap will not only digitalise the operation and maintenance of all city infrastructure and services, it will enhance governance by streamlining transport, schools, health services, and even monitoring tax and planning.

His Majesty commanded that the Thimphu experience - the work of the Zoning Task Force, which comprised officials from His Majesty's Secretariat, the Ministries of Agriculture and Forests, MoWHS, Economic Affairs, the NLC, ECB, the Thimphu *thromde*, and National Statistical Bureau be taken to all *thromdes* in all *dzongkhags*. The members of the task force and relevant agencies are now building a GIS database and street address systems for Phuntsholing, Gelephu and Samdrup Jongkhar, to be adopted by the COVID-19 National Task Force, headed by the Prime Minister, which will eventually take it nationwide.

Over to the Government

All this means refining the urban development vision of the government, the first step being to update the Thimphu Structure Plan, to be followed by other Bhutanese towns. This will be a major task even with the existing

structure plan which has been widely appreciated as a plan but criticised for poor implementation. The unanimous agreement, however, is that there is much to be done. And there is an emerging sense that it may be now or never.

The realisation provoked by the shock of COVID-19 is a motivation to take the situation seriously. Given the circumstances, there are no options. And given the current leadership and team work, there is reason for optimism.

To start with, the basic data collected during the zoning exercise needs to be expanded into a comprehensive database of utilities and infrastructure for national planning. The demographic pattern of urban residents needs to be monitored regularly with updated information from house owners and tenants. The pattern of the student and teacher population growth also needs to be recorded and tracked.

All this calls for a major training effort to build the capacity of the *thromde* and other agencies, government as well as the private sector. Very few Bhutanese officials are currently able to work on such data so they need to be trained in the art of information survey and analysis.

Another delayed requirement is to merge all isolated technology-based activities into a common platform like the government data centre, to be maintained by a central agency - the DITT. The infrastructure has been built, some data collected by different agencies, the ideas generated, but the coordination has been completely neglected in the past.

Urbanisation in Bhutan, along with all other aspects of development and progress, requires a U-turn in approach and implementation - in other words, an overhaul of the work culture and discipline. And a vital element that is visibly missing is respect for regulations and the rule of law and the blatant failure of oversight organisations to execute their responsibilities.

In the absence of consistent professional management and supervision, buildings have encroached extensions into the setbacks, footpaths, public spaces, roadworks remain incomplete, regulations and even laws are frequently breached. These render our cities not only inconvenient and ugly but also hazardous during emergencies such as fires and earthquakes.

It is common knowledge that the most beautiful cities, towns, and settlements in the world are the ones that are most regulated. It is also common sense that unregulated neighbourhoods are the ugliest and most dysfunctional. With graphic examples of both of these around the world, we have the advantage of hindsight to make our decisions. And the decisions we make today will determine how we are remembered by our children tomorrow.