

When it comes to land use, S'pore keeps some options open

The goal is not to postpone development indefinitely, but to prevent today's choices from unnecessarily closing off tomorrow's possibilities.

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At the National Day Rally, Prime Minister Lawrence Wong made an unusual but important point about land planning. Of the additional land to be created on Pulau Tekong, about 500ha will be reserved for future civilian use – even though the Government has not decided what it will eventually be used for.

The proposed western island reflects the same logic. Rather than committing the reclaimed land to a single predetermined use, Singapore would create space that could support different combinations of industry, power generation and defence as future needs evolve. Its value therefore lies not only in the additional



Sites like Marina Barrage perform several functions. Marina Barrage supplements Singapore's water supply, controls floods in low-lying parts of the city and provides recreational space. ST PHOTO: KUA CHEE SIONG

land created, but also in the choices it preserves. This is what PM Wong meant by planning 50, 70 or even 100 years ahead for generations not yet born.

But what does it mean to “create options” through land-use planning, and why should leaving a use undecided be considered valuable rather than evidence of

indecision?

Economists have a term for this: option value. When future needs are uncertain and present decisions are difficult to reverse, retaining the ability to choose later has value in itself. The goal is not to postpone development indefinitely, but to prevent today's choices from

unnecessarily closing off tomorrow's possibilities.

Singapore can preserve this option value or harness strategic optionality in three ways: by reserving and developing land progressively; by designing buildings and districts that can adapt; and by stacking several compatible functions on the same site.

DEVELOP IN STAGES

The simplest way to preserve option value is not to decide the permanent use of every parcel today. This can be done in two ways. Some land can be held in reserve until future needs become clearer. Large sites can also be developed in stages, allowing later phases to change as circumstances evolve.

Pulau Tekong illustrates the first approach. The eventual purpose of the 500ha created and reserved for future civilian use has been deliberately left open. Future generations will inherit not only the land, but also the freedom to decide how best to use it.

Copenhagen's Nordhavn illustrates the second approach. The former industrial harbour is being transformed over roughly 40 years, one neighbourhood at a time. Rather than specifying every final detail from the outset, its masterplan provides a flexible framework, allowing later phases to respond to changing needs and preferences.

Reserved land need not remain fenced off or idle. Temporary parks, sports grounds or cultural spaces can provide value in the meantime, as long as these uses remain easy to relocate or adapt.

The principle is straightforward: meet some needs now, without making every

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decision irreversible before the future becomes clearer.

DESIGN FOR MORE THAN ONE FUTURE

The second strategy is to develop land now, but with flexibility built in. This means designing buildings and infrastructure so that they can be converted more easily when demand changes.

The Paris 2024 Olympic Village was designed with a planned second life. It first accommodated athletes and officials, but its buildings were constructed so that internal layouts and fittings could readily be converted into homes, offices and neighbourhood facilities.

Permanent residents have since begun moving into the converted neighbourhood, demonstrating that its planned second life was more than an architectural aspiration.

The broader lesson is that two buildings providing the same

service today may have very different long-term value. A highly specialised structure may become obsolete when technology or demand changes. A building with adaptable flooring, service systems and internal layouts may be converted rather than demolished and rebuilt.

While this form of flexibility may involve higher upfront costs, or the structure may not be optimised for its current use, it lowers the future cost of changing course. This approach does not always require leaving land undeveloped; it can also be embedded in the design of what is built today.

ONE SITE, MANY FUNCTIONS

While adaptability allows a site to change its use over time, stacking allows the same site to perform several functions simultaneously.

Singapore already has a compelling example in Marina Barrage. It supports three purposes at once: supplementing Singapore's water supply,

controlling floods in low-lying parts of the city and providing recreational space. The reservoir supports activities such as kayaking and sailing, while the barrage's green roof is used for picnics, kite-flying or simply enjoying views of the city skyline.

A similar approach can be found in Hoboken, New Jersey. ResilienCity Park contains playgrounds, sports courts and lawns for everyday use, but also stores up to about 7.6 million litres of stormwater during heavy rain through its above- and below-ground infrastructure. The city therefore gains both public recreation and flood protection without requiring separate sites for each.

Stacking multiple functions keeps options open indirectly. When one site can satisfy several needs, other scarce parcels do not have to be permanently committed to separate, single-purpose facilities. The proposed western island could apply this principle at a much larger scale by serving as a

multi-use platform for industry, future power-generation infrastructure and defence needs.

FLEXIBILITY IS NOT FREE

There is an obvious danger in celebrating flexibility, as it can become an excuse to postpone difficult decisions.

Land held in reserve carries an opportunity cost: it cannot be committed to permanent homes, infrastructure or other long-term needs today. Adaptable buildings often cost more upfront. Multi-use infrastructure is notoriously difficult to design, construct, maintain and govern.

The goal is not to preserve every option, but to maintain a sensible portfolio of them. The case for this is strongest when future needs are highly uncertain, new information is likely to arrive, alternative future uses could be very valuable and today's decision would be difficult to reverse. Strategic waterfront land that may be needed for coastal protection, a different energy

system or an emerging industry whose future land needs remain uncertain may fall into this category.

The case for committing land is stronger when the present need is urgent, alternative sites are limited and the social benefits are large. For instance, constructing new housing in mature estates may justify exercising the option now rather than holding it indefinitely.

There is also a middle ground. Large districts can be developed progressively, meeting some immediate needs while retaining flexibility over later phases. Buildings can be constructed today but designed for conversion. Several compatible functions can be accommodated together rather than competing for separate plots.

Land-use appraisal therefore needs to ask more than whether developing a site today produces positive net benefits. For highly irreversible choices, planners should also ask: What future options would this decision

extinguish? What might be learnt by waiting? Can current needs be met while preserving some room to change course?

The long-term plans outlined at the National Day Rally show that Singapore will continue to create land where it can and extract more from existing space by building higher, deeper and denser. Both strategies have worked well in the past, and remain important. However, land reclamation will become only progressively more costly, and no amount of density can remove every trade-off.

This is why a third strategy must become more explicit: preserving future choices. Good planning is not about deciding everything today. Sometimes it is about deliberately leaving tomorrow's Singaporeans with meaningful choices of their own.

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