

# Achieving total sanitation and hygiene coverage within a generation – lessons from East Asia



Photos: Homes on the Cheong-Gae in the 1960s (left), and the stream as it looked in 2014 (right), Seoul, South Korea. Credits: Seoul History Museum (left); © iStock/Tanjala Gica (right)

**This paper sets out findings from WaterAid’s research in East Asian states on the political economy of sanitation and hygiene services that delivered total coverage within a generation. The purpose of this research is not to claim blueprints for success – the specifics of each case show the contextual nature of sanitation transformation. However, the intention is to galvanise and frame the emerging dialogue in the sanitation and hygiene sectors, on how to achieve the necessary radical ‘step-change’ in progress, to deliver universal access to services by 2030.**

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Spring 2015

## Foreword

### Following the Asian Tiger trail

The pioneering research undertaken by WaterAid into how several East Asian countries achieved universal access to sanitation comes at a critical moment: this year, 2015, is the year that the UN's Sustainable Development Goals will be finalised in a world effort to eradicate extreme poverty. Water, sanitation and hygiene for all are on the agenda, but sanitation clearly poses a major challenge. It is among the most off-track of all the current Millennium Development Goals and hence needs urgent attention.

Both the need for sanitation and the diverse challenges in delivering, as well as sustaining, sanitary services are immense and apparent in my home country of India. I have had the opportunity to visit WaterAid projects to see work bringing safe, sanitary toilets to communities and schools. In my experience, hygiene education has revealed itself as the key link between provision of improved sanitation facilities and the ultimate usage by communities that will lead to better public health. Furthermore, engagement in schools has the potential of creating a domino effect in terms of increased awareness and demand for sanitation and hygiene in the neighbouring communities.

It is of particular significance that the Government of India is emphasising this link through various programmes around hygiene and sanitation. The 'sanitation economy' is the interplay of demand and supply; governments need to emphasise both the creation of sanitation infrastructure and adequate demand for its use. Beyond this, the government's role includes ensuring adequate standards are in place, with attention to the location and accessibility of toilets enabling greater usage, proper maintenance, the availability of water and management of waste, among other things.

The task may appear daunting, but is eminently achievable. The WaterAid research showcases Singapore, South Korea, Malaysia and Thailand as key examples for their rapid, remarkable results in delivering total sanitation coverage even as they were still coming into their own as modern nation-states.

Strong, high-level leadership, a vision of total coverage even before the nation became wealthy, a multi-sector approach and continual monitoring and improving of standards were all key to these formidable achievements on sanitation.

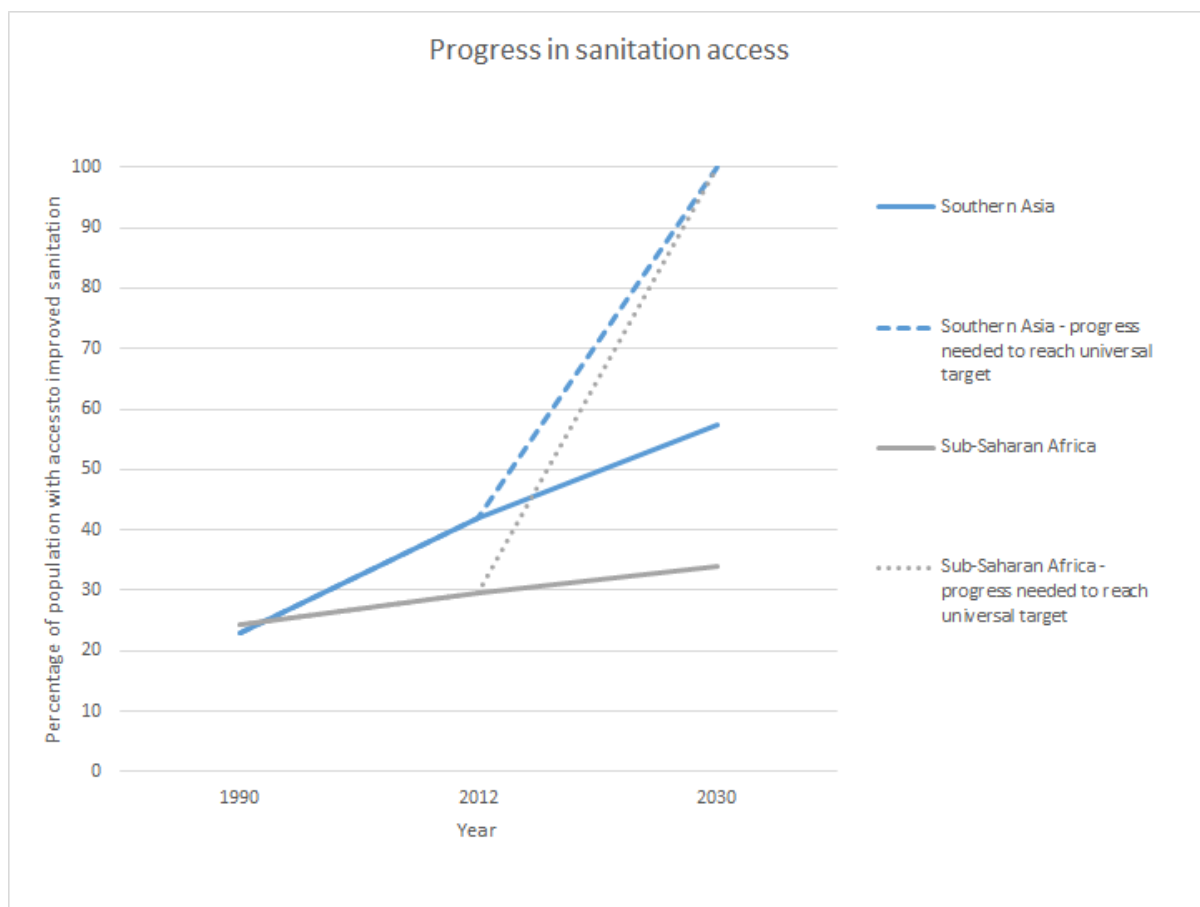
Every country faces its own challenges and circumstances. But there are useful lessons to be drawn from these examples as India moves boldly towards delivering a toilet for every household.

It is my hope that research like this and programmes like the HSBC Water Programme will help countries around the world deliver safe water, basic sanitation and hygiene education to everyone, everywhere. The impact on health, on the safety of girls and women, on education, on productivity, and on people's dignity is immeasurable.

Naina Lal Kidwai, Chairman India & Director HSBC Asia Pacific

## Introduction

There is a strong chance that the UN’s post-2015 Sustainable Development Goals framework will include the target of universal access to water, sanitation and hygiene (WASH) by 2030, as part of a broader poverty eradication agenda. Sanitation<sup>1</sup> for all will be particularly challenging to achieve. Globally, sanitation is counted as the most off-track of all the current Millennium Development Goals sectors. For most countries in Sub-Saharan Africa and South Asia, progress has been particularly slow in delivering, extending and sustaining services.



Source: Calculated from WHO/Unicef Joint Monitoring Programme for Water Supply and Sanitation [www.wssinfo.org](http://www.wssinfo.org)

<sup>1</sup> ‘Sanitation’ here is taken to be the safe separation, disposal and treatment of human excreta.

To hit the target of universal access by 2030, improving the performance of the sanitation sector<sup>2</sup> is essential. This will require new strategic approaches, to decisively shift the effectiveness of the reform agenda, but there is a lack of comprehensive strategies available to use as a guide.

This paper introduces the findings from research in four East Asian countries – Singapore, South Korea, Malaysia and Thailand<sup>3</sup>, and aims to begin to fill that gap. These countries were selected because they produced rapid and remarkable results in delivering total sanitation coverage in their formative stages as nation-states. While their initial conditions were very different to those currently found in ‘fragile’ and ‘least developed’ countries in Africa and South Asia, some useful conclusions can inform the development of strategic approaches to delivering sanitation for all:

- High-level political leadership was critical and did not stem from community-driven demand.
- Hygiene, cleanliness and public health aims drove sanitation improvements.
- A well-coordinated multi-sector approach was a necessary condition for rapid sanitation improvements.
- Capacity building happened alongside sanitation improvements.
- The vision of total sanitation coverage came before attaining levels of national wealth, and reaching a threshold of per capita GDP was not decisive in the strategic choice to deliver total sanitation coverage.
- Some element of subsidy was included, but alongside demand creation, and was often indirect (e.g. through housing subsidy).
- Monitoring was continuous, with ‘feedback loops’ to revise methods, raise standards and build new reforms as goals were achieved.

### **High-level political leadership was critical and did not stem from community-led demand**

In each of the countries studied, improvements in sanitation and hygiene were a result of a high-level political push, from the head of government down, to elevate national standards of public health, cleanliness and hygiene practices. This may have been triggered by intra-regional competition, the development of a social contract for newly independent states, the drive for a strengthened and diversified economic base, or the construction of a national identity based on the pursuit of ‘common goods’. But in each case, the goal of total sanitation coverage was pursued as part of a wider narrative around notions of common wellbeing, modernity and nation-building.

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<sup>2</sup> ‘Sector’ here is taken to be the activities and agencies (including government ministries, public sector agencies, private sector and civil society groups) necessary for planning, implementing and monitoring ongoing delivery of services.

<sup>3</sup> Malaysia case study and full synthesis report pending.

As well as providing a strong political push, national leaders also took responsibility for continuing oversight and input into the implementation strategies necessary for delivering permanent sanitation services. The personal supervision by the head of government was high profile and personal. Theirs was not a one-off paper declaration, but rather a continuing process of promotion, progress-chasing, law-making and, at times, authoritarian punitive measures, driving changes in social and cultural norms.

The Singapore post-independence nation-building project of the 1960s centred on a strategic choice to build an entreport<sup>4</sup>-oriented economy integrated into a global trading system. The high profile and long-term *Keep Singapore Clean* campaign was founded on notions of modernity that were required to attract inward investment.

South Korea's 1960s nation-building effort was articulated in terms of a social contract offering to build a society on the principle of 'living well'. President Park Cheung Hee's action on sanitation and hygiene included the regular issuance of presidential decrees requiring the accelerated implementation of legislation and institutional reforms. Malaysia's post-independence development project was spurred by the belief that providing for the common good was a way to diffuse the threat posed by communist insurgency. Equitable progress for the rural poor was a guiding principle, emphasised with the 'New Spirit' programme of rural development.

In all cases, campaigns were also a means to pursue public common goods to build social cohesion. The ideological underpinnings for the behaviour change on hygiene were a mix of ideas of civic responsibility and the construction of social norms associated with notions of modernity.

Leaders referred to specific local observations and used them to both point to areas of progress and chastise the lack of progress. None were reserved in their criticisms about shortcomings.

**“I mean to plan, to analyze, to conceive, as good as any in the world. But finally you go down, somebody's got to put a screw, tighten the bolt, and has to see that *he* does it, the drive that he puts into it, *that* determines the pace.”**

PAP leader and later Prime Minister of Singapore, Lee Kuan Yew, talking to civil servants and technicians at the Political Centre, 14 June 1962

They also focused on repeating the value-orientations that they believed to underpin sanitation and hygiene policy, linking them to the grander narrative around nation-building and socio-economic development.

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<sup>4</sup> A trading post where merchandise can be imported and exported without paying import duties, often at a profit.

**“...unless something is done to help them [the rural poor], they would not keep pace with the nation’s progress. A new nation cannot afford to have an unbalanced population.”**

Prime Minister of Malaysia, Tunku Abdul Rahman, 1958

A focus on sanitation was established at the highest level of the Thai government (through the King of Thailand) and was reflected at all levels of government, from the central government to the village or district officials, with the presence of informed and competent officers.

The Thai case study stands out as a model of effective use of public funds to promote and support improvements in sanitation on a large scale. Total coverage was achieved in Thailand by the late 1990s after 40 years of sustained public intervention, with a sharp reduction in mortality linked to diarrhoea. This success was the result of a comprehensive programme that provided sustained long-term funding with careful sequencing of demand and supply-side interventions and effective targeting of public subsidies to leverage private funding.

While in all cases sanitation progress is punctuated by moments of crisis that spurred on action, such as slum fires, disease outbreaks and civil unrest, the overall strategy was primarily motivated by the positive goal of nation building.

### **Hygiene, cleanliness and public health aims drove sanitation improvements**

In each of the countries studied, improvements in sanitation came as part of wider public health, housing and hygiene programmes, rather than being pursued as a standalone goal. As such, government-led and publicly-subsidised sanitation infrastructure was developed in parallel to changes to public health and hygiene policies.

In South Korea, the government launched a Parasite Eradication Programme. The provision of sanitation infrastructure in low-income housing projects was an integral part of this. In Singapore, the 1967 *Keep Singapore Clean* campaign launch was quickly followed by the introduction of the Public Health Law. This was the first in a number of legal measures designed to regulate and change public health behaviours. That behaviour change drive was backed by punitive sanctions.

For rural Malaysia, the approach of using the law to drive change was considered to be a policy instrument with limited reach in the rural context. But the rural development programme was built entirely around improving public health, with sanitation improvements at the core.



Similarly, Thailand focused on creating demand, with subsidies first provided through revolving funds (applied in different ways, depending on local circumstances) and then through the provision of a ‘Sanitation Activity Package’, which consisted of mostly hardware funding for seven activities, including water supply storage, excreta disposal, solid waste management, wastewater treatment, food sanitation, vector control and household sanitation. Villages had flexibility for allocating funds to the interventions or recipients most in need. Such policies succeeded in leveraging substantial household investments in sanitation; the study estimated that each baht of public funds leveraged 17 times more in private funds from households.

### **A well-coordinated multi-sector approach, was a necessary condition for rapid sanitation improvements**

Delivering new sanitation infrastructure – within development programmes such as pro-poor housing, urban renewal, and primary education and public health initiatives, as well as in broader rural development schemes – required synchronised public policy and institutional coordination.

In Singapore, the widespread extension of access to household sanitation happened through a large government-subsidised low-income housing programme. The rapid and widespread availability of affordable public housing saw a huge number of people move from informal kampong, or unfit slum housing, where open defecation was common, to flats with access to private safe sanitation.

Malaysia built improved rural villages for the poor to resettle in. As well as being enclosed, for security, they were designed to be desirable, with better agricultural land, schools and clinics, as well as higher quality housing with water and sanitation services. There were additional efforts to improve villages that were not resettled, including subsidy for sanitation hardware.

In South Korea, President Park built Five Year Development Plans that framed provisions such as sanitation as part of a national-level drive to improve the lives of citizens. It was followed through by presidential activism that included frequent visits to project sites to monitor progress, such as the New Village Movement that incorporated building sanitation infrastructure in rural areas. A schools-based Parasite Eradication Programme effectively integrated public health monitoring and behaviour change into national education curricula with the aim of eradicating endo-parasitic infection as the clear measurable indicator.

In all countries, sanitation policies were anchored within a single ministry, but the implementation chains ran through multiple agencies and ministries, in all cases

including education, housing and health departments. To coordinate this there was ministerial oversight on roles and responsibilities.

In Korea, detailed guidance on the specific roles of public institutions and staff was outlined in successive Presidential Decrees. In Singapore, sanitation was covered under the Ministry of the Environment, with divisions structured around functional roles capable of delivering both the necessary hardware and behaviour change components. Officials promoting behaviour change were housed within the Environmental Public Health Division, while the Environmental Engineering Division held responsibility for hardware and infrastructure programmes. Malaysia divided rural and urban sanitation, with rural sanitation situated within the Ministry of Health. This was a deliberate decision to ensure that sanitary engineers were available for rural sanitation, without the risk that they would be pulled away for urban projects. However, the Deputy Prime Minister emphasised coordination above all, introducing the ‘Red Book’ – a coordination implementation guidebook developed to remove any lag in the implementation of rural development projects caused by uncoordinated bureaucracy.

**“Your function, first and foremost, is a function of a ‘breaker of bottlenecks’. You must get out and around to every district looking for frustrations, looking for departmental disagreements, looking for delays, and when you have found them, you must diagnose them and then: (a) try on your own behalf to solve them; (b) if you cannot solve them yourself then report to the officers of my Ministry and ask them to solve them; and (c) when all else has failed then they will be brought to me and I will try and solve them.”**

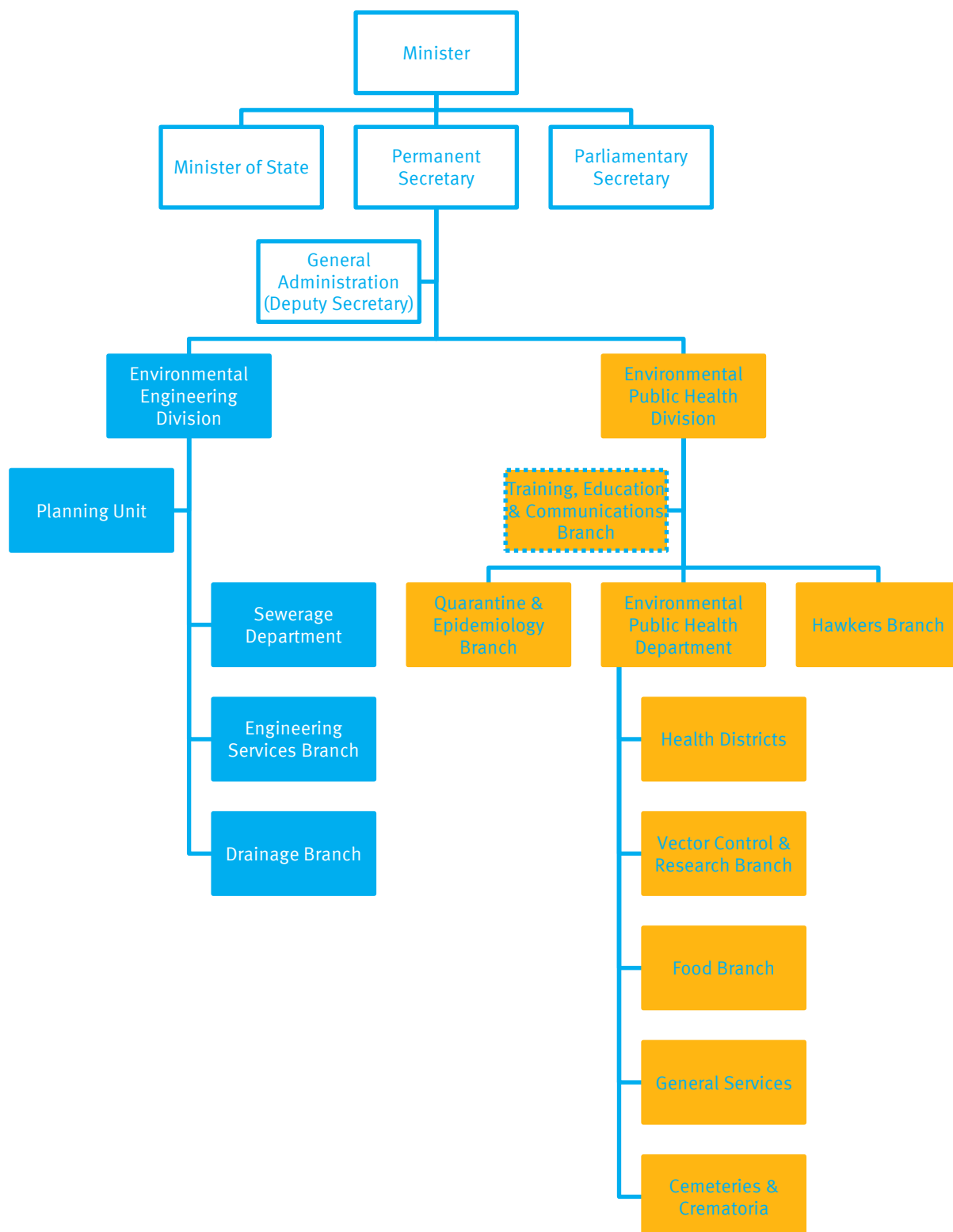
Deputy Prime Minister of Malaysia at the State Development Officers Conference, 13 December 1965

Overall, the changes in Malaysia’s institutional structure reflect a fundamental shift in its intended function. Before independence, the health sector was primarily concerned with curative health in urban areas; after independence, preventive health care in rural areas became the priority, and, with this, rural sanitation.

The figure on p8 demonstrates how in Singapore the two functions of behaviour change and infrastructure were housed within a single ministry. Importantly, the objective of behaviour change, highlighted in yellow was given equal prominence and situated in parallel structures to hardware delivery objectives, highlighted in blue. It also shows ‘capacity building’ (Training, Education and Communications Branch) being emphasised as a standalone priority.



**Figure 1: Original organisational structure of Singapore’s Ministry of Environment**



Source: Ministry of Environment (1972) *Annual report*. Singapore: Ministry of Environment

## Capacity building happened alongside sanitation improvements

Setting up structures fit for delivering institutional mandates had the benefit of allowing administrative form to follow implementation function, but a wider internal capacity building challenge needed to be addressed. Budget allocations and mandates were, by themselves, insufficient.

Each country government offered incentives for improved performance bolstered with continuing high-level motivation to build cohesive societies. But there were also strategies for a wider process of rapid and continuous internal capacity building. Staff were both sent abroad for training and enrolled in training and certification programmes in-country.

Crucially, the design, implementation and monitoring of sanitation improvements did not wait for capacity development. The growth of the sector's capability happened alongside efforts to make progress in sanitation coverage, as part of an agenda to strengthen the sector. Sometimes importing technical assistance from external support agencies, the governments built their institutional and technical capacity as part of the initial stages of implementing their national strategies.

## The vision and strategy for total sanitation coverage came before attaining levels of national wealth

Attaining a threshold of national per capita income appears not to have been a key determinant in the choice to develop a national sanitation sector capable of expanding permanent services for all citizens. In the 1960s, the per capita income levels in the East Asian states studied were, at the outset of their national sanitation sector planning stages, equivalent to many Sub-Saharan African countries. This is significant because it suggests that the overall strategy and vision came first, and the sector investments from a variety of sources were sought after.

The composition of finance in providing sanitation infrastructure for poorer communities was made up largely from official sources of finance, principally from government revenues but also from bilateral and multilateral grants and loans, and user fees or public housing rents. It is not the focus of this study, but it would be worth analysing whether today's proliferation of vertical funds and the increasing preference of many bilateral donors for channelling Official Development Assistance through results-based and performance-based allocations would make the financing strategies of East Asian developmental states of the 1960s possible today.

**Table 1: Different national improved sanitation coverage trajectories**

Country	GDP per capita in 1960 (in USD)	National improved sanitation coverage rate in 2000
South Korea	\$155	100%
Ghana	\$183	10%
Liberia	\$170	12%
Senegal	\$249	43%
Zambia	\$227	41%
Zimbabwe	\$280	40%

Source: World Bank and UNICEF/WHO

### Monitoring was continuous and standards raised as goals were achieved

The complexities of coordinating multiple departments and policies required a continuous and cyclical process of monitoring and analysis. This allowed national governments to identify performance and implementation weaknesses and to respond to bottlenecks with remedial improvements and reforms. In the countries studied, the defining feature of even some of the most centrally driven national sanitation policies was a process of continuous local-level monitoring of programmes, from design, through the delivery chain, to implementation at project level, with ongoing follow up reforms and improvements.

The Five Year Development Plans of South Korea were not static grand master plans. There were continuous revisions and improvements, with sometimes annual changes made through Presidential and Ministerial Decrees, each setting new enabling conditions or adjustments.

For rural Malaysia, the Deputy Prime Minister established local ‘operations rooms’ where all development projects were monitored in real time so that obstacles could be identified and overcome. These were the locus of cross-sector coordination.

**“[Development teams] must also, at least once a week, have what I call ‘morning prayers’ where all departmental officers get together and instead of writing tedious minutes on files to each other, they settle their departmental differences together, in a coordinated way, in front of the maps in their operations rooms.”**

Deputy Prime Minister to Persatuan Ekonomi Malaysia, 24 March 1966<sup>5</sup>

<sup>5</sup> Source: National Archives of Malaysia (n.d.) “Speech by the Deputy Prime Minister to Persatuan Ekonomi Malaysia on 24<sup>th</sup> March, 1966.” In *Ucapan-Ucapan Tun Haji Abdul Razak Bin Hussein 1966* (pp. 54-66). Kuala Lumpur, Malaysia: National Archives of Malaysia.

Across the countries studied, the dynamic can be characterised as a cyclical process – a high-level political drive that sets the extension of sanitation coverage within broader development initiatives, such as providing public health and affordable housing. This is underpinned by a compelling political narrative around the goal of building cohesive societies, or a common national identity with norms and standards built on notions of shared and collective responsibilities. National leaders and senior officials were continuously championing the benefits delivered by increased sanitation coverage and progress-chasing the planning and policies down the implementation chain to deliver improved performance. In turn, the monitoring and identification of critical bottlenecks was fed back into a reform and improvement process to deliver stronger performance and permanent outcomes. Using and responding to outcome monitoring information may be the essential ingredient of a sector that continues to make solid and rapid progress.

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