THE DELIVERY OF ENVIRONMENTAL HEALTH SERVICES IN MALAYSIA

MAEH Journal of Environmental Health eISS
Jurnal Kesihatan Persekitaran MAEH
Published By Malaysian Association of Environmental Health
http://www.maeh4u.org.my/journal

Environmental Health Delivery for Developed and Developing Countries

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INTRODUCTION

Environmental health delivery practice is focused on assessing, controlling and preventing factors in an environment that can potentially harm human health and sustainability. It involves many professional disciplines, organization, people and actions that primarily intend to promote, restore and sustain health. However, the impact of environmental health delivery among developed and developing countries varies. Basically, countries are divided into two major groups; the developed and the developing countries. Country classification is based on economic status such as Gross domestic product (GDP), Gross national product (GNP), per capita income, industrialization, living standard etc. (Surbhi, 2020). Developed countries, as opposed to other countries, are defined as sovereign states which are stable in terms of economy and possess advanced technologies and infrastructure. However, countries with low industrialization and low human development index are considered as developing countries (O'Sullivan et al., 2003). Instead of economic differences, there are also inequalities in health deliveries.

DEVELOPED VS DEVELOPING COUNTRIES

Developing countries suffer from high rates of diseases especially infectious diseases and malnutrition; poor food, unclean water, poor sanitation and shelter level, inadequate treatment and lack of sufficient medical care (Orach, 2009). A study reported the global effects of the Spanish flu pandemic found that there was a significant gap in mortality rates between the developed and developing countries (Oshitani et al., 2018). There are several factors involved including lack of access to sufficient medical care, poor public health infrastructure, socioeconomic status (SES) such as housing conditions and number of populations, and host factors such as nutritional status and co-existing health status. Therefore, mortality rate is greater in developing countries compared to developed countries. There are surveys that evaluate around 180 countries on their environmental health and vitality of their ecosystems which uses the term Environmental Performance Index (EPI). European countries dominate the top ten in this survey focusing on sustainability around the globe. This survey intends to establish and point out where work is required and advise policy-makers. Going through the EPI rank of countries from first until eleventh are all European nations and having to go down to number 12, which is Japan to leave the continent shows how much progress has been done in European countries on addressing environmental health issues (Arbolino, 2018).

There are a number of environmental health delivery components. However, in this paper we are focusing only on four major components which are communicable disease control, water safety, sanitation/solid waste management and air quality. Figure 1 shows the environmental health deliveries framework among developed and developing countries.

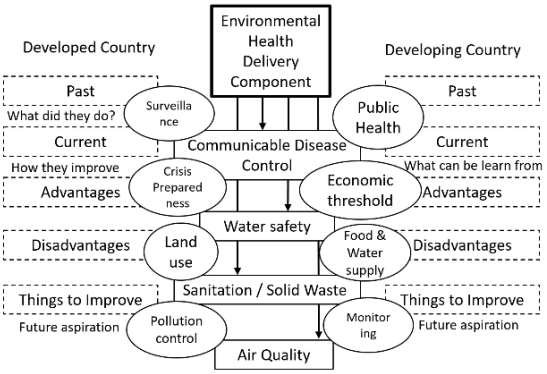


Figure 1: Environmental health deliveries framework

The past and current environmental health delivery practices, advantages and disadvantages of current practice and future improvements for each component for both developed and developing countries shall be discussed further.

Communicable Disease Control: Past

Communicable Disease Control is part of the Environmental Health component related to Public Health. Looking back in history before the Covid-19 pandemic hit, the world has been struck by numbers of major communicable disease disaster involving the environment naming a few smallpox in Athens, Greece, The Plague of Justinian, Great Plague of London, Smallpox in Mexico, Yellow fever in Philadelphia. Even though disease figures change regularly, infectious or communicable diseases stay in as the prominent cause of morbidity and mortality in least developed and developing countries.

South East Asia (SEA) zone contributes to high mortality rate from infectious disease related to the environment (WHO, 2018). Singapore is the only developed country in South East Asia. Most developing countries especially in SEA region have fall short to eradicate vaccine-preventable diseases even with the provision of interventions and policies to prevent them in the past few decades. Join effort of developed countries and developing countries on this mutual goal of health determinants has been seen in "Millennium Declaration" which was signed by 189 countries and the aim for the goal run for period 2000–2015. Five out of eight goals in this collaboration's concern are on the environment and health (Pimonenko, 2018). Optimal control of communicable disease depends on control measures in the environment, surveillance program, policy and regulation, vaccine and medication and behaviour change (Bagherian, 2017). In terms of surveillance programs, developing countries assess epidemiologic communicable disease control conventionally rely on interview-based and incident data for contact tracing and to evaluate key epidemic criteria that are very basic and effective data such as demographic data, time and place. Nonetheless these data can be limited by incomplete information input due to labour-demand constraint. Least developed nations are also short of disease surveillance programs and laboratories, which are important to the purpose of diagnosis and findings which contain communicable diseases.

As a developing country, financial affairs are the most fundamental concern for sustainable interventions. As infectious diseases can exhibit epidemics in the present economic context, it is to conclude how funding allocations essential for the prevention, control and treatment of communicable diseases (Abel-Smith, 2018). Prioritization is critical in managing infectious disease. Vector-borne infectious diseases, particularly mosquito-borne, pose a substantial threat to populations throughout South and SouthEast Asia. In the early years of the 21st century, outbreaks such as Chikungunya and Dengue have affected these regions several times. These diseases are believed to be highly prevalent at endemic levels in the region as well (Servadio, 2018).

Communicable Disease Control: Current

Control of communicable diseases remains as one if not the most major public health priorities globally. Moreover in this prosper information sharing era, media interest and public expectations is high in terms of public health assurance, and environment. In Malaysia, dengue fever is the most prevalent infectious disease followed by Tuberculosis (TB), Hand Foot and Mouth Disease (HFMD) and diarrhoeal disease or food poisoning. Compared to the neighbouring country, Singapore the most prevalent infectious disease is HFMD, followed by dengue fever and diarrhoeal disease. In Denmark, foodborne disease like Salmonellosis has been eradicated since 2011.

Developed countries have a well-established surveillance system. Influenza like illnesses (ILI) is an example of a symptom to be recorded in a surveillance system and the benefit with this established system is that: risk assessment can be done with early detection of disease. Even if the developed countries have a good surveillance system they are still improving because communicable disease is dynamic in terms of time, people and place.

While the developed country uses advanced technology to study specific genotype of pathogen that causes a certain infectious disease, it is too ambitious progressively for developing countries to jump into the bunch in the near future as there are few more demanding and critical factors to refine such as better environment control, enhanced surveillance program, behavioural change and medication as well as vaccine and drugs availability.

Various aspects to determine whether the least developed nation and whether the developing too are able to access affordable drugs are being researched. In terms of medication availability, most medication research and development are not tailored towards the need of the community in poor nations because they are not a big market (Obi, 2017). Therefore, a large portion of the fund spent comprehensively on infectious disease and health related research are committed to infectious disease issues involving a small chunk of the global population. Another factors affecting are the social and political challenges to the distribution of medicines. Multi-government, founder, pharmaceutical body, and other organizations are conducting attempts to tackle this issue contributing fund, research, and medications donation. The World's infectious disease affliction is not concerned on loss of lives or damaged but whether most of these infections could be stopped or prevented efficiently with cheap medications or drugs.

Vaccination and treatment linked into control policies are interventions which become a highly practical advantage and also ease implementation as they are widely applied and proven to control or curtail a disease (Kumar & Srivastava, 2017). Besides the needs of the basics of life like water supply, sewage management, food safety improvement, proper vaccination programs are needed crucially in least developed and developing countries. Life expectancy gap between the wealthy and the poorest nation now widens and transcends approximately four decades (Elmawazini, 2019). Vital and major obstacle to accomplish this enhancement is the elemental shortcomings of the competency in terms of health care and environmental health personnel. Environmental Health Officers (EHO) in a developed country academic qualification are at a bachelor's degree level while in developing countries EHOs are signed up at diploma levels. Qualification plays an important role in communicable disease control activities at the field of investigation, specimen taken and control activities. To address this concern, environmental health and public health infrastructure are needed. Leader and officer developed a strategy to improve health literacy for the public and also for the health professionals' education to gain education opportunities specifically to the EHOs.

Water Safety: Past

Burden is significantly put towards the developing countries, with the resource constraint and limited technology. According to WHO in 2015, there are 2.1 billion people globally still lacking on safe water at home, which included 844 million people with no basic drinking services and 159 million people still dependent on untreated surface water. The situation is most common in sub-Saharan Africa and Oceania region (WHO, 2017). The increase of lack in water safety is also accountable for increases of water-borne diseases especially diarrhoea among children, where 829,000 people are estimated to suffer each year from diarrhoea due to contaminated drinking water, sanitation and hygiene (WHO, 2019). Thus, it remains the core priority in Sustainable Development Goals (SDG) to ensure that all have access to at least basic level of services.

Before these countries achieved universal basic drinking water services, they also underwent a series of diseases outbreaks and water

contamination due to use of untreated water and no installation of sewerage systems. However, the facilities and treatment began to improve by years. In 2004, WHO also introduced international guidelines of water safety plans (WSPs), where 93 countries had implemented it but with a variation of scale-up implementation (WHO, 2017). However, not all developing countries are able to implement the framework with the same pace as developed countries. Some of the developing countries are still struggling with basic provision of water and use of untreated surface water. Thus, current practices in the developed countries may vary compared to developing countries, since they have different concern areas and resources.

Water Safety: Current

Meanwhile, in most developed countries such as Australia, New Zealand, North America and Europe are close to achieving universal basic drinking water services, gaining access to water supply and sanitation (WHO, 2017). Thus, it makes water security as no longer the issue for most of the developed countries. However, they are still dealing with issues that affect drinking water quality such as water scarcity, drought and water pollution due to rapid urbanization and climate change phenomenon.

There are certain areas in developing countries that still do not have proper water treatment and sewer systems. For a community that lacks potable water supplies, home-storage water is a common practice by collecting from surface water such as rivers, lakes and boreholes. Even if there is pipe water supplied to the home, it is not always constantly accessible, thus there is a need for home-water storage. Contamination during collection, transport and storage of water due to poor hygienic practices can lead to health problems among the household (Edokpayi et al., 2018). Decentralized approach such as focusing on household water treatment and sanitation facilities are the most suitable alternative for developing countries, since that centralized approaches are always associated with high maintenance expense, lack of proper management and reliance on treatment technology that need to be sustained frequently (Montgomery & Elimelech, 2007).

Meanwhile, for household sanitation, these countries still lack a proper sewage system and disposal. The gaps between rural and urban areas in sanitation practices is still high, where urban households are proved to use the improved sanitation facilities, compared to people in rural areas. There are still some households in rural areas that have no access to sanitation facilities and practice defecating in the open. The likely reason for urban people to have more access to these infrastructures is due to availability of central sewer systems only in major areas of cities but not in remote areas (Abubakar, 2017). The distinct difference in availability of proper water treatment and sanitation facilities in developing countries can be seen as challenges of implementing the infrastructure due to lack of financial resources; incapability in operation and maintenance the facility; lack of water quality standards; insufficient skilled personnel and monitoring equipment or technologies (Montgomery & Elimelech, 2007).

Sanitation / Solid Waste Management: Current

Due to growing growth, rapid economic development, increase in the consuming pattern, rapid urbanization and global industrialization, solid waste practice has become a global issue in developed and developing countries (Ferronato & Torretta, 2019). Anthropogenic activities produce waste and it is the way in which waste is treated, processed, collected and disposed, which can pose environmental and public health threats. Statistics in 2016 showed the cities around the world produce 2 billion tonnes of solid waste, leaving a footprint of 0.74 kg per person per day. Total waste production projected to rise to 3.4 billion tonnes by 2050 despite rapid population growth and urbanization (The World Bank, 2019).

At present, the most effective strategies to waste management worldwide is focused on three R concept: Reuse, Recycle and Recovery (Di Maria et al. 2018). It has been extrapolated from the waste management hierarchy framework. Figure 2 shows a basic principle that is related to waste management: prevention; reuse; recycle; recovery; disposal.

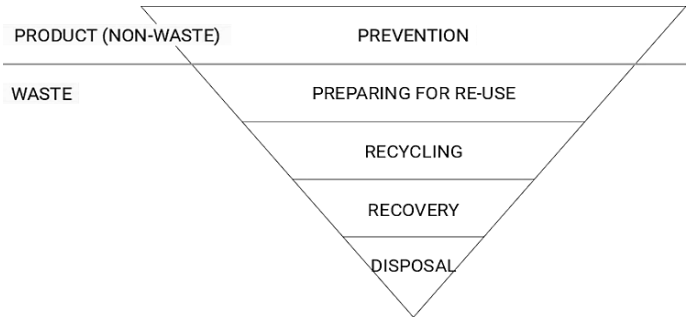


Figure 2: Waste Management Hierarchy Framework

From this framework, it helps to determine when waste should be treated as a secondary raw material and allows stakeholders to distinguish between waste and by-product. Plus, it illustrates principles of waste management, demanding that the waste is to be handled without endangering human health or the environment and which focuses on waste prevention.

Population in developing nations, particularly the urban poor are more highly affected by mismanagement of solid waste compared to those in developed nations. The use of effective treatment and disposal technologies is still scarce in most developing countries. In general, they used obsolete methods and disposal techniques, inadequate and inconsistent monitoring of collection and facilities, lacking political attention and human resources. Other issues are insufficient public awareness on effective waste management practices, lacking household-level recycling programmes, inadequate handling and monitoring of scavenging activities and lack of organization capacities, skills, expertise and financial resources. In contrast, developed countries effectively resolved issues related to solid waste management by introducing effective policy framework and well-engineered technologies and methods for waste management. The differences between developed and developing countries can be seen in Table 1.

Table 1: Differences in solid waste management in developing and developed countries.

Solid waste (WS) criteria	Developing Countries	Developed Countries
Collection, transfer and transportation of SW	• Insufficient and ineffective, leading to inadequate waste collection system • Lack proper waste collection • Road in bad condition/ inaccessible • Financial constraint to buy equipment and machinery	• Proper bin collection systems, effective and efficient route planning and access to information on collection schedule • Infrastructure well developed • Full and latest equipment and machinery
Processing and treatment of SW	• Adopt biological treatment, thermal conversion and material recovery and recycling • Application of vermi-composting is still low or absence • Used of incineration with emission of harmful gases to public health and environment • Low or absence of recycling system	• Deployed advance thermal combustion methods such as pyrolysis and gasification. • Deployed vermi-composting facilities to process organic waste • Used advance technologies that protect public health and environment • Effective recycling system
Technology of SW management	• Employ relatively cheap technologies (landfills)	• State-of-the-art waste management technologies (thermal treatment, sanitary landfills
Government policy	• Lack of enforcement and implementation • Lack of proper organization structure	• Stringent regulation and legislation

Source: Mmereki et al. (2016)

Developed countries have developed and implemented effective solid waste management framework, adopted sustainable waste

management technologies and integrated approaches compared to developing countries. In developing countries, traditional solid waste management practices remain dominant. And until today, the developing countries are still struggling to deal with solid waste management.

Air Quality: Past

Air pollution is nothing new. In fact, it has become one of the most significant challenges faced by humankind since the beginning of industrialization. Before developing successfully in cutting their carbon emission, they experienced a series of air pollution events mostly in the 18th to 19th century due to the Industrial Revolution and use of coal as energy resources to help nations run and manufacture goods. However, over century burning coal from home fires and local factories had caused deathly smog over London town in 1952. As a result, it killed nearly 4,000 people over several days of event. The Great Smog of London and other several air pollution events had been an initial point for developed countries to monitor their air quality and control the carbon emissions (Polivka, 2018).

Air Quality: Current

Malaysia is moving towards being a developed nation in terms of air quality. This is reflected from the setup of the network monitoring station. Similar to communicable disease, air quality surveillance systems are important to manage early warning systems which detect uncontrolled release of untreated chemicals on air. The common issue in Malaysia is odor-related pollution. The tolerability of urban people towards odor is low. The Department of Environmental is developing an odor-related emission level which formulates odour level for the public to address the level of pollution.

However, with the series of pollution events that occurred, most developed countries had developed a robust framework and policy standards on air quality performance. Countries such European Union (EU) had way surpassed their targeted emission reduction and had led to extensive approaches in seeking to invest on alternative energy and sustainable development (EU, 2018).

Meanwhile, low- and middle- income countries had suffered the most from air pollution both ambient and indoor air pollution. According to the World Health Organization (WHO), there are approximately 7 million deaths every year from air pollution and regionally occurring in Asia and Africa. In 2016, ambient air pollution accounted for 4.2 million deaths alone, while indoor air pollution caused around 3.8 million deaths in the same year (WHO, 2018). The cause of air pollution in low-middle income countries are mainly due to intensification of the industrial sector, rapid urbanization as well as transportation. However, the rapid development in developing countries tend to jeopardize their quality of life over the desire for industrialization. As a result, some areas in developing countries tend to overlook for example dealing with air quality management.

Intensification of the industrial sector in developing countries may have been the result of foreign manufacturers that are sited in developing countries. As a result, from weak environmental standards implemented in developing countries, it attracts foreign firms to establish their production there. Therefore, causing heavy pollution to the host country. Basically, these foreign countries were improving their own environmental performance by shifting to a less-polluting way and transferring more polluting activities to developing countries (Zhou, 2017).

Furthermore, low- and middle- income countries often execute poor urban planning like waste disposal and treatment. Countries like Cambodia, Thailand, Nigeria and Mozambique had been manifesting unsustainable waste management practices such as open dumping, open burning and informal recycling which creating environmental health hazards. Correspondingly, toxic fumes and smoke from open dumping and burning have degraded environmental air quality in these countries thus affecting public health (Ferronato & Toretta, 2019).

Another principal course of air pollution is from rapid motorization in highly populated areas. Developing countries consist of a high density of population due to rapid migration into cities, with poor transportation networks such as rapid urban transit, cycling and pedestrian lane. Thus, resulting in heavy reliance on diesel-fuel vehicles to enhance mobility (Sperling, 2002).

Moreover, developing countries recorded a high number of deaths due to indoor air pollution. Women and children in the countries suffered the most from indoor air pollution as a result of not being able to purchase modern technologies such as electric stoves. Increased poverty had resulted in high use of charcoal, firewood and kerosene inside poorly ventilated homes for cooking, heating or lighting (WHO, 2018).

Table 2. Comparison in Environmental Health (EH) Delivery between Developed and Developing countries.

DEVELOPED COUNTRY	EH SERVICES	DEVELOPING COUNTRY
-Established epidemiology surveillance -Eradicated Vaccine Preventable disease (VPD) -Establish drug R&D, available and affordable -Funding allocations to certain disease prevention program are sufficient and prioritize accordingly	**Communicable Disease Control**	-Strengthening epidemiology surveillance -VPD are still exist in the community and are not been eradicated completely -Most drug R&D is not geared toward the needs of people in less developed countries because they are not a big market. -Funding allocations to certain disease prevention program are insufficient and does not meet the need.
-Safe water supply, advanced sewage treatment and disposal, improved water monitoring. -Centralized approach is the most suitable alternatives especially for remote areas. -Invest on advanced technology for efficient operation.	**Water Safety**	-Basic sewage treatment and disposal while some area still use conventional method -Decentralized approach is effective in most part of the countries. -Inadequate technology for water treatment and sanitation.
-Eradicate foodborne disease without vaccine	**Food Safety**	-Still does not eradicate any foodborne disease with proper vaccine
-Target is to reduce greenhouse gas emission is achieved but proceed toward carbon net zero emission (climate change)	**Air Quality**	-Does not enforce air pollution matter because of interest
-Effective household segregation -Well developed Infrastructure and advanced equipment and machinery	**Sanitation / Solid Waste Management**	-Lack of household segregation -Financial constraint to buy equipment and machinery

As a summary, there are differences in environmental health delivery practices between developed and developing countries in terms of communicable disease control, water safety, food safety, and air quality and sanitation/waste management.

FUTURE OF ENVIRONMENTAL HEALTH DELIVERY BETWEEN DEVELOPED AND DEVELOPING COUNTRY

Teaching Program

Environment health issues between developed and developing countries are coming to meet a common point where there is a traditional environmental health risk and modern risk. Developing countries such as Malaysia are indeed facing environmental health issues stemming from the imbalance of infrastructure development and globalization. However, for developed countries, environmental health issues are mainly related to globalization and technologies development. EH professional staff are required to address environmental health issues in both developed and developing countries. To achieve this objective, a dynamic environmental health curriculum is needed to highlight issues of programmatic enhancement and to evaluate EH professional competencies (Arshad et al., 2018), which considers the geographic and demographic aspects of a country as well as globalization with the context of advanced technology. The dynamic curriculum must be accompanied by EH educators who specialized in the field that incorporated advanced and low-cost technology and have strong skills in determining effective teaching and learning approaches in line with the IR 4 or AI

technology in implementing teaching and learning based on blended or hybrid learning concepts.

In addition, a robust and ideologically oriented training course EH along with a one-year dynamic training module must be designed rather than in-service training concept that is only implemented periodically. The potential topics of knowledge and skills are important to provide a framework for curriculum analysis and to evaluation of existing programmes to prepare EH personnel in the coming years and even beyond (Arshad et al., 2018). With this kind of training, EH instructors will be able to function efficiently in producing professional EH personnel to manage environmental health issues in developing countries especially in Malaysia. Therefore, environmental health issues in developing and developing countries should be managed wisely by professional EH personnel.

Communicable Disease Control

Getting back to the main component in providing the ideal communicable disease control program is towards advancement in environment control via well trained personnel and equipment, enhanced surveillance program, behavioural change and medication as well as vaccine and drugs availability. Although policy and regulation are important, having a decent policy without a good spectre of enforcement and compliance, will turn out to be inadequate. Risk communication is the area that both developed countries and developing countries need to operate comprehensively. For instance, comparing the policy and risk communication of Malaysia and Italy during the covid-19 pandemic. Malaysia deals with the situation relatively prominent by the early movement control order. Also relating on the covid-19 the lesson learnt is even though the country possessed the most advanced technology in the world like the United States and China, a simple policy and efficient risk communication to the community are essential in dealing with communicable diseases.

Water Safety

Overcoming the barrier of delivering safe water provision and sanitation in both developed and developing countries, requires all participation from the top management of government to general involvement of communities itself. In order to have clean and safe water, the government prioritizes improving access to water supply especially to remote areas. However, increased access to water does not always ensure its better use, if water-borne disease is still increased along with the poor hygienic practices among the society. Thus, indicating the need to have public education in sanitation and proper hygienic practices.

There is a need to emphasize on educating society to identify the negative impacts of improper water treatment and inadequate sanitation along with policy implementation. Better cooperation between the community members can be gained through the rising knowledge on the importance of water safety, sanitation and health. Besides, government initiative should focus on the needs and capability of the local community to conduct the operation and maintenance. The operation work required trained and skilled personnel to be in charge of the provision of water safety and sanitation along with the availability of equipment and technology. Lastly, collaboration between governments with international stakeholders in adopting systems worked by developed countries along with the financial resources assistance and trained manpower can help towards an efficient implementation of water safety and sanitation services.

Sanitation / Solid Waste Management

The best strategy to promote and enhance solid waste management in developed and developing countries is to ensure that all parties actively participate in this process. The key objectives of the strategy are to increase knowledge of solid waste management to all members of the community (Mmereki, 2016). Participants will join the campaigns if dissemination of the information on the importance and advantages of waste management programme on how to handle waste and engage in designing of the programmes is implemented. Continuous public education can be delivered through all communication channels such as television, radio and newspaper. Social media platforms such as Facebook are powerful to educate and influence the public. Active public participation towards successful delivery of effective programmes is critical in all countries.

Air Quality

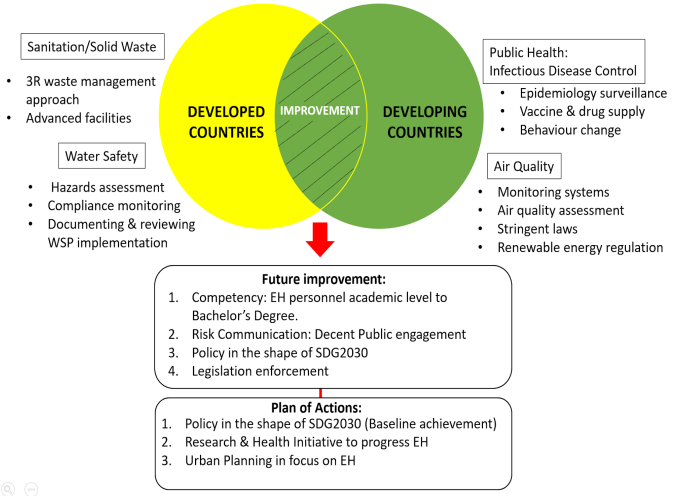
Developing countries are majorly involved in heavy industrialization and had been major contribution to urban air pollution within the countries, the first step should be on developing air pollution standards. For example, emission standards for vehicles and industry can be established in accordance with partnership parties. Improving fuel quality or adopting clean energy is important to meet the vehicles emission standards policy. The use of recent technology such as portable multi-gas analysers for EH personnel are highly needed. Smartphone application to link community to Environmental agency such as DOE should be introduced in Malaysia.

Collaboration between government and other interested parties in developing clean energy transportation or technology is important in promoting environmental-friendly life. At a state level, public transport and a non-motorized vehicle should be promoted for better air quality. Society should be educated in the importance of environmental protection and reduction of transportation emission. Concept of environmentally sensitive urban development should be educated in workshop training for industrial, media and learning institutions. In addition, extensive informational campaigns and awareness-raising projects should be widely disseminated through social media platforms.

Plan of Action

On the whole, both developed and developing countries demand for future improvements in environmental health delivery is needed. Figure 3 illustrates the framework of environmental health delivery for a better future.

Figure 3: Ad-Libitum Attribute of Environmental Health Delivery for a better future.



Referring to Figure 3, the Plan of Actions involved are collaboration between all sectors including government, privates, NGOs and community to participate in urban planning to help cities mitigate current and expected risks to environmental health, research and health initiative including technology innovation to promote public health and environmental and health initiative through continuous education and programmes. Communication tools such as

the use of social media as a communication platform will drive environmental health delivery to the next level.

CONCLUSION

Environmental health delivery in low- and middle- income countries are still climbing to its top. For instance, countries like sub-Saharan Africa and South East Asian regions are still striving in public health, waste management, water safety and air quality. Largely due to a burden from the nation's gross domestic products (GDP), thus it explains the diversion of goals between developed and developing nations. As developing countries desire for industrial and economic growth, they tend to jeopardize and sacrifice quality of life such as health and environment through unsustainable development practices. They do not consider investing in proper technology, competent manpower and maintenance of operation since all they care about is achieving the nation's wealth. Burden of the economy triggered the country's inability in investing in modern technology, restricts capacity development in addressing environmental problems and growing the technical challenges.

In overcoming these challenges, countries need to pursue distinctive approaches in each service such as having strong collaboration between government and continuous public education, public engagement and legislation enforcement. Further proper urban planning along with research and health initiative can be an effective way to resolve barriers in environmental services. Furthermore, adopting the framework system of a developed country in accordance with the country's capacity can be the fundamental step in delivering better services. In order to manifest excellence in public health, solid waste management, water and air quality performance requires a strong and holistic approach by the government, stakeholders, academia and community itself.

CONTRIBUTION STATEMENT

MAEH Focus Group Discussion 2020 was held via teleconference from 25 June - 25 July 2020. AFO, NHH, AYY, MHR, RR and FAS conceived the forum and drafted the first version of the discussion. MAZ, HH, MFU, TPA, JH, RMA, AO and MFA analyzed the topic. All participants produced the article and approved the final version.

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