

# About The International Year of Sanitation 2008 - IYS 2008 and The Malaysian Standard MS 2015:2006 for Public Toilets



MOSTI

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**STANDARDS**  
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# Foreword



The Malaysian Association of Standards Users (Standards Users) is happy to develop this publication on behalf of the Department of Standards Malaysia (STANDARDS MALAYSIA) in conjunction with the Promotion Programme on the Importance of the Malaysian Standards (MS) 2015:2006 series and the International Year of Sanitation 2008.

Standards Users has been given the opportunity to promote the importance of MS 2015:2006 series for public toilets as tools for relevant stakeholders who design, provide or maintain public sanitation and hygiene facilities.

We have promoted the MS 2015:2006 series and also the importance of hygiene to students during school workshops. We have also stressed during public seminars, the importance of ensuring public sanitation facilities are designed for safety, accessibility and convenience.

The public seminars were attended by architects, civil engineers in government agencies, representatives from local governments, companies supplying hygiene related supplies such as detergents and soaps and also toilet designers themselves. During one of the public seminar we were told that the architects are keen to design public toilet facilities according to the MS 2015:2006 series from now on.

Standards Users developed promotion materials such as brochures and booklets such as this one titled About the International Year of Sanitation and the Malaysian Standard MS 2015:2006 for Public Toilets in order to enhance understanding about hygiene and its importance among users and service providers of public sanitary facilities.

From the resources of the United Nations we understand that 2.6 billion people around the world lack access to toilets. We hope that the MS 2015:2006 will assist in terms of reference for a good i.e functional, convenient, safe and accessible public toilets for UN member countries.

Once again we thank STANDARDS MALAYSIA and will continue to incorporate importance of the MS 2015:2006 series and hygiene during all our outreach programmes.

Thank you.

**Datuk Marimuthu Nadason**

*President*

*Malaysian Association of Standards Users*



## Message from Director General



This publication on the International Year of Sanitation 2008 (IYS 2008) and the Malaysian Standards MS 2015:2006 for Public Toilets is aimed at creating awareness on the importance of sanitation and hygiene and also to provide a brief introduction on the tools available to improve hygiene and sanitation facilities everywhere.

We hope the reader will understand that access to basic sanitation facility is fundamental right of human beings in order to survive and eventually prosper. The reader must also be aware that less than half the world's population (most of them children and women) live without access to the most basic form of hygiene and sanitation facility i.e a **TOILET**.

In conjunction with the IYS 2008 the Department of Standards Malaysia (STANDARDS MALAYSIA) in cooperation with the Malaysian Association of Standards Users (Standards Users) organized a series of promotion events targeted at both young and adult audience on the importance of good toilets (particularly Public Toilet) facilities to further improve understanding on the importance of hygiene and sanitation among the Malaysian public. Although Malaysia has done quite well in improving sanitation and hygiene facilities for its people, citizens in rural areas still face problems.

There is also the lack of civic obligations to maintain and use public toilet facilities responsibly by urban dwellers. In addition to lives of people with disabilities are further aggravated by unsuitable design of public toilet facilities.

In order to assist providers of public sanitation facility and maintenance service, STANDARDS MALAYSIA developed the MS 2015:2006 series as tool to design, rate, inspect and maintain public toilets. This Malaysian Standard (MS) was carefully crafted to cater for users of all ages and abilities.

STANDARDS MALAYSIA would like to submit this publication and also offer the use of the MS 2015:2006 series as additional reference to United Nations (UN) member countries in providing their citizens with public sanitation facilities which are safe, hygienic, accessible and convenient to use.

STANDARDS MALAYSIA will continue to monitor and consequently develop tools within the scope of our work to assist various stakeholders to improve sanitation and hygiene status of Malaysians and the UN family at large.

Thank you.

**Fadilah Baharin**

*Director General*

Department of Standards Malaysia

Ministry of Science, Technology and Innovation (MOSTI)

# About the International Year of Sanitation 2008 – IYS 2008

(source: *Tackling a global crisis: International Year of Sanitation 2008; UN-Water, 2008*)

- Sanitation is vital for human health
- Sanitation generates economic benefits
- Sanitation contributes to dignity and social development
  - Sanitation helps the environment
  - Improving sanitation is achievable!

The declaration of year 2008 as the International Year of Sanitation or IYS was made during the 2006 UN General assembly.

The IYS is aimed at raising awareness on the importance of achieving the Millennium Development Goals (MDGs) especially in cutting the number of people without access to basic sanitation in half by the year 2015. The IYS 2008 is also to create urgency to accelerate actions to achieve those goals.

*The Millennium Development Goals (MDGs) are eight international development goals which 189 United Nations member states and at least 23 international organizations have agreed to achieve by the year 2015. They include reducing extreme poverty, reducing child mortality rates, fighting disease epidemics such as AIDS, and developing a global partnership for development.*



Photo © UN-HABITAT

Around the world, 2.6 billion people do not have a clean and safe place to use for performing their bodily functions – they lack that basic necessity, a TOILET.

## Who are these 2.6 billion?

Among them are those who live in towns and crowded rural environments.

For women the problem is greater still and 1.3 billion women and girls in the Developing World do not have access to basic sanitation.

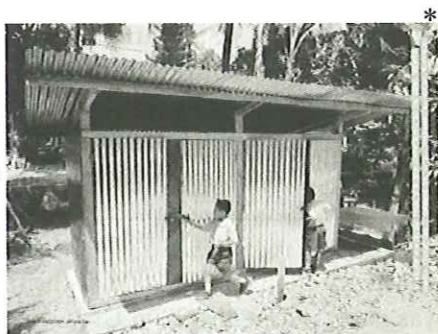
They live in unhygienic conditions all the time: human faeces, flies, and other disease-carrying agents.

This leads to:

- widespread damage to human health and child survival prospects;
- social misery especially for women, the elderly and people with disabilities;
- depressed economic productivity and human development;
- pollution to the living environment and water resources.

In the more developed countries human waste can be removed into sewer or septic tank and every house the toilet facility.

There are public toilets available in every business centres, parks, malls post office, bus stations and even on roadsides.



*Plight of rural girls in India: School girls miss at least 10% of their school days to remain at home because of their special sanitary needs when they reach puberty. And it is taboo to discuss the issue. Many girls drop out from school after that perhaps because they can not follow the lessons, for safety reasons or they are expelled due to long absence.*

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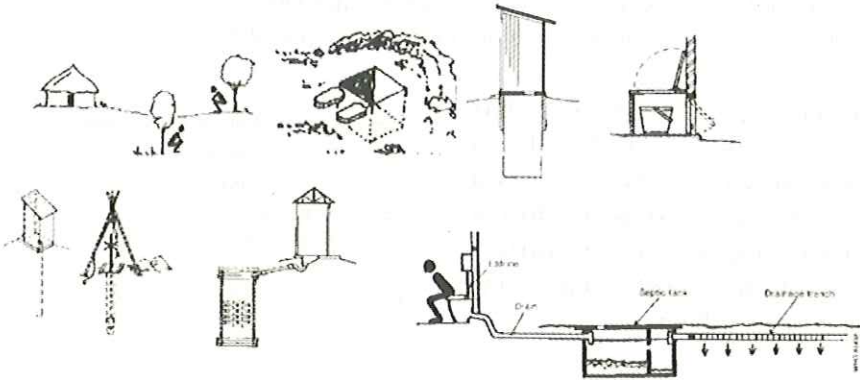
\* Photo: Tackling a global crisis; © UNICEF / HQ6-01845 / Josh Estey



BUT in poorer regions of a country or region 90% of the human end up untreated in rivers, causing serious pollution.



Following images are taken from :A Guide to the Development of on-Site Sanitation, © WHO, 1992, showing different ways humans remove their excreta through defecation.



Source: Philippines Sanitation Sourcebook and Decision Aid <http://esa.un.org/iys/sanitary.shtml>; accessed 2<sup>nd</sup> September 2008)



\* Photo: It's not a private matter anymore; Published by the Government of Indonesia in cooperation with the World Bank Water and Sanitation Program - East Asia and the Pacific (WB-EAP), Third Edition, Sept 2007.

## Importance of Hygiene

Hygiene is the practice of keeping oneself and one's environment clean and free of infection risk.

It's really important that everyone learns about hygiene in the community so people take care to help prevent the spread of disease. This can be done by:

- Not dropping litter outside
- Not polluting rivers, streams and other waterways
- Using latrines instead of the outdoors where possible.

**It is also important that governments and local communities have a good sanitation system (rubbish collection, sewerage, toilets etc.) and that local people know how to use them.**

*Every year 13,000 children under the age of 15 die due to diseases which could have been prevented with proper hygiene; such as diarrhea, cholera etc.*

*In the state of Perak, the first death from Hand, Foot and Mouth (HFV) was recorded, in October 2008.*

Human body carries many disease causing germs especially around the nose, mouth and hands. If we do not clean ourselves the first signs of bacteria growth is body odour. People living in warm climates are more prone to body odour than those living in colder climates.

Teenagers are also more prone to body odour than young children.



## Importance of washing hands

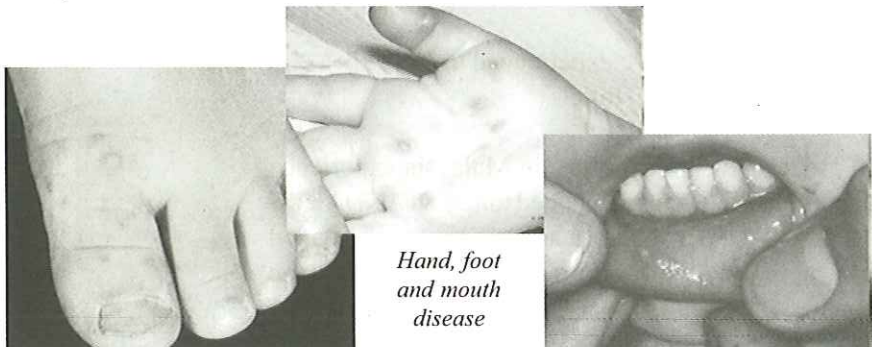
- Hands are carriers of disease agents from person to person directly or indirectly.
- Hands carry pathogens from contaminated sources such as animal or bird faeces, contaminated foods or domestic or wild animals to new susceptible hosts
- Handwashing is important where people gather such as schools, offices, shopping malls, feasts, food stalls and restaurants and many more.
- It is very important in hospitals or where sick people are treated or admitted.



In developing countries the biggest killers of young children such as diarrhoea are preventable via handwashing.

The following diseases and many others can be prevented by handwashing:

1. Diarrhoeal disease (which can include shigellosis, typhoid and cholera)
2. Hand, foot and mouth disease
3. Eye infections



## Importance of Toilets

**What do we need to practice good hygiene? A toilet!**  
**Do you know that by the age of 65,**  
**a man spends 5-7 years in the toilet?**  
**Is good toilet important? What is a good toilet**  
**– especially what is a good public toilet?**

The Department of Standards Malaysia or STANDARDS MALAYSIA developed a set of standards for public toilets.

### Why public toilet standards?

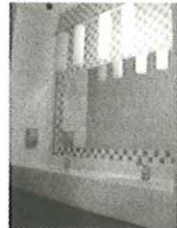
- Because we spend most of our lives outside the home.
- We go to school, work, seek entertainment at public places like malls, theaters and parks.
- So, a good public toilet standards will help us maintain good public hygiene.

***BUT PUBLIC TOILETS ARE FOR  
EVERYONE AND EVERYONE  
NEEDS TO TAKE CARE OF  
THEM.  
USE PUBLIC TOILETS  
RESPONSIBLY.***

We have encountered many unpleasant experiences with public toilets in Malaysia. Some have been vandalized and some are poorly maintained.



BUT some of us have experienced using well maintained and clean toilets.



In order to ensure everyone in Malaysia experience using clean and well maintained toilets STANDARDS MALAYSIA put together a working group headed by Dr. Asiah Abdul Rahim of International Islamic University (UIA), Malaysia, to develop a set of standards for public toilets.



## About the MS 2015:2006 – for Public Toilets

### What is the MS 2015:2006?

The standard was developed to assist the relevant bodies / agencies / private organizations in the provision of clean, hygienic, safe, accessible and convenient-to-use public toilet facilities. The standard covers all types of public toilets and statutory requirements, design, location, number, type and quality.

But the standards DOES NOT cover supply of water or the provision of wastewater disposal or storage systems for public toilets. But ecologically appropriate sewage and water supply system is utmost important for public toilet facilities to effectively / usefully safeguard public health.

The series of the MS or Malaysian Standards developed for public toilets are:

- MS 2015: Part 1: 2006 Minimum design criteria
- MS 2015: Part 2: 2006 Inspection Criteria
- MS 2015: Part 3: 2006 Rating Criteria
- MS 2015: Part 4: 2006 Code of practice for maintenance

### Who developed the MS 2015:2006?

The Malaysian Standards related to public toilets was developed by the Working Group on Public Toilets under the previous Industrial Standards Committee (ISC) for consumer products (or ISC C). This ISC was disbanded in January 2007. The ISC C and all other ISCs and their technical committees

• *“To reach the sanitation target means providing services to an additional 450,000 people a day until 2015. This calls for almost a doubling of the current efforts. On current trends, the world will miss the sanitation target by more than half a billion people.” WaterAid*

• *“Poor sanitation and water supplies are the engines that drive cycles of disease, poverty and powerlessness in developing nations. Action to improve sanitation is an important step to enable the poorest people to escape poverty.” - WaterAid and Tearfund. Human Waste Report 2002*

and working groups are part of the national standards development infrastructure under the Department of Standards Malaysia (STANDARDS MALAYSIA). STANDARDS MALAYSIA is an agency under the Ministry of Science, Technology and Innovation (MOSTI).

### Who are the direct users of this standard?

The standards was developed for use by local authorities, government departments, the building and construction industry, architects, construction engineers, all providers of public toilets, consultant, toilet facilities providers, sanitation and cleaning service providers and other related sectors.

IMPROPER TOILET USE



PROPER TOILET USE



### What does the standard cover?

The MS 2015:2006 Part 1: Minimum design criteria, provides MINIMUM design requirement for public toilets. The aspects covered in this standard are:

#### *1. Performance requirement*

- The standard covers functional performance of public toilets. It aims to provide facilities which are suitable for the purpose of urinating, defecating, cleaning oneself, grooming, to perform parenting needs and attend to other bodily needs in a clean, secure, private and hygienic manner.
- For all gender, parents, children and people with disabilities and people who care for them.
- Safe, private and hygienic and located for access and convenience. It must also be structurally sound and vandal resistant.

## ***2. Design of public toilets***

Design of public toilet must fulfill the following requirements:

- Safety / security
- Privacy
- Hygiene
- Equality – gender / people with disabilities / all ages
- Convenience – location, opening hours, number, fittings etc
- Vandal resistance – illumination, location, opening hours, anti-graffiti, hidden flush/ cisterns



## ***3. Location of public toilets***

Location of toilets must be in line with public expectations and may differ for example if public toilets are to be located in public parks, theatres or post office etc.

### **Users with Special Needs:**

Accessible public toilets facilities must be provided at remote locations with road access and at other remote locations. These requirements applies regardless of means of mobility, travel or level of assistance needed by people with disabilities (PWD).

#### 4. Number of toilet units

The number of toilet units required is influenced by presence or availability of toilets, location and expected number of users and the gender ratio among others. The standard provides calculations to determine the number of toilet units.

##### **Users with Special Needs:**

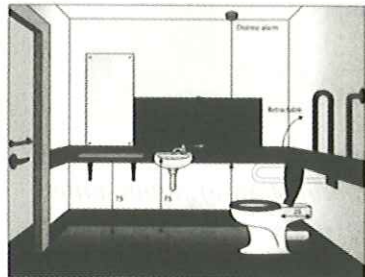
The number of toilets units for PWD is based on the guidance below:

Total toilet units	Accessible toilet units
1 to 10	1
11 to 20	2
21 to 30	3
etc	

#### 5. Expectations of users

Expectations of users are linked with location and accessibility, toilets features, fittings and hygiene.

For example: if the facility is to be located in large urban centres and mainly used by local shoppers, with low tourist proportion and high proportion of elderly and children then the expectation of users will be for a high quality facility with wide range of features.



But if the facility is to be located in travel routes such as the R&R along federal highways, with main users being family, holiday makers, tourists and traveling workers then users may expect modest quality facilities.

#### **How many public toilet facilities in Malaysia are built according to MS 2015:2006?**

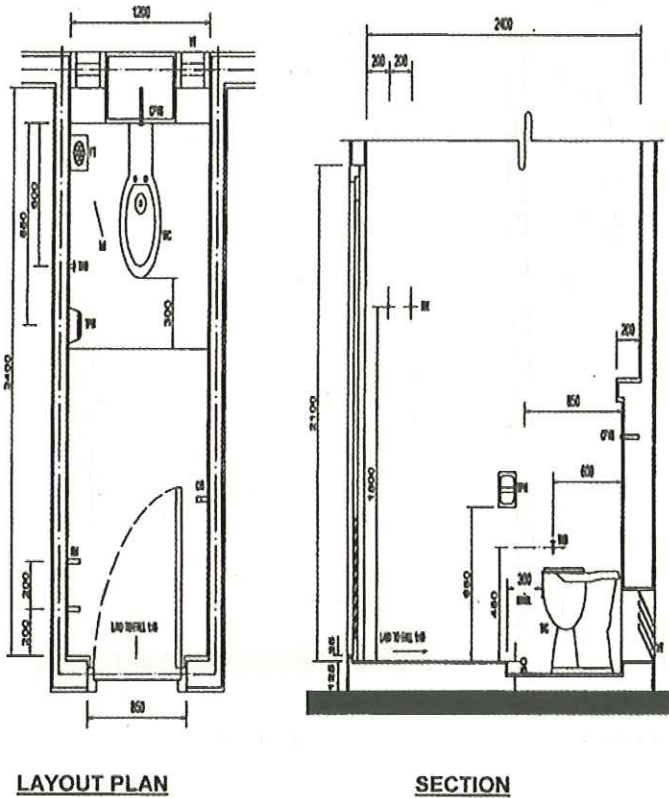
Sadly only one at Sekolah Perbandaran No.4 in Sibul, Sarawak.



# Annexe 1: Examples of toilet layout from the MS 2015:2006

MS 2015: PART 1:2006

Dimension in millimetres



**LAYOUT PLAN**

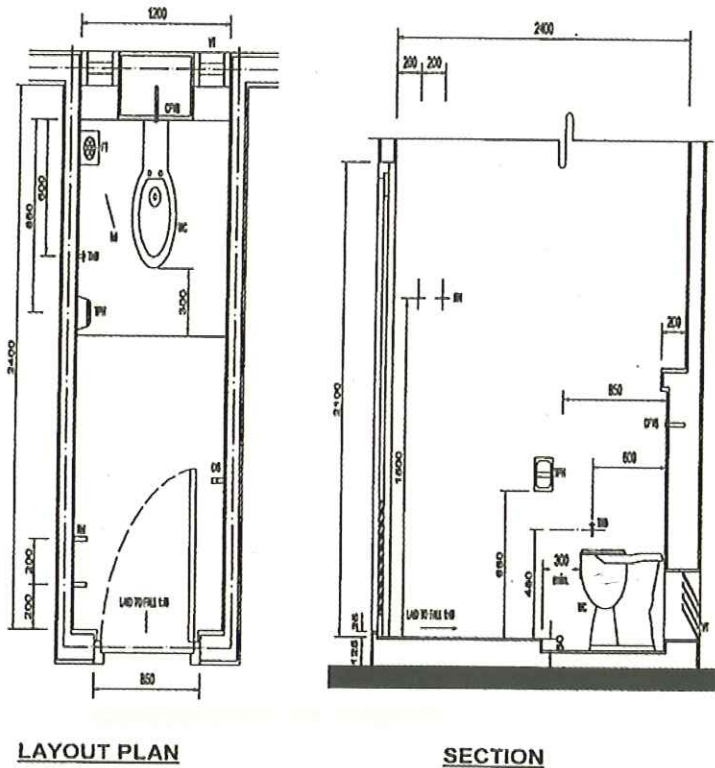
**SECTION**

Figure F8. Typical pedestal W.C. cubicle with drop and rear ventilation -  
Layout plan - Section

# MS 2015: PART 1:2006

MS 2015: PART 1:2006

Dimension in millimetres



**LAYOUT PLAN**

**SECTION**

Figure F8. Typical pedestal W.C. cubicle with drop and rear ventilation -  
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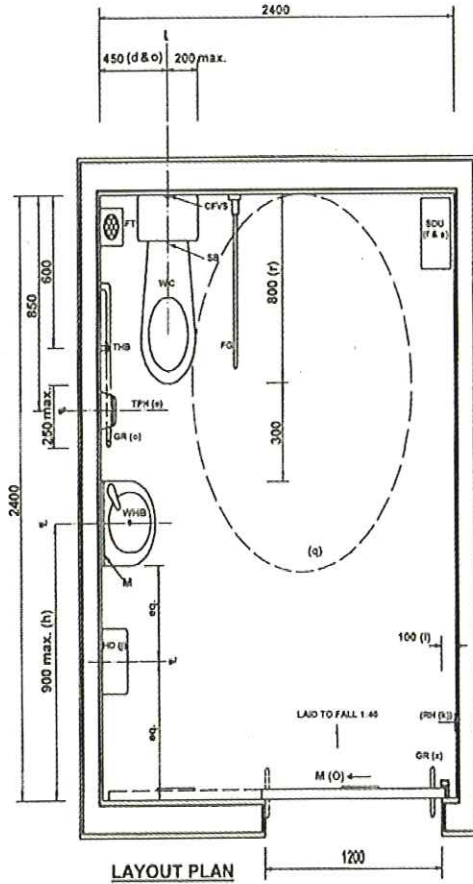


Figure F26. Accessible toilet unit (sliding door) - Layout plan

Dimension in millimetres

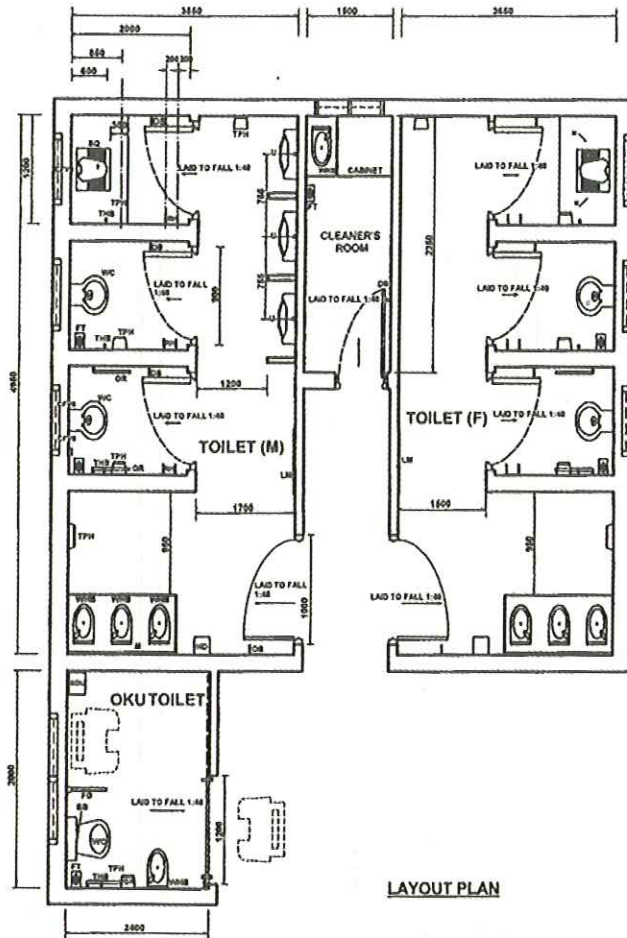


Figure F27. Male, female, cleaner's room and accessible toilet - Layout plan

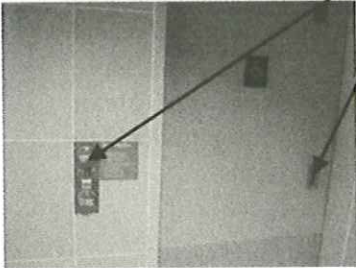


## Annexe 2: Malaysian Scenario

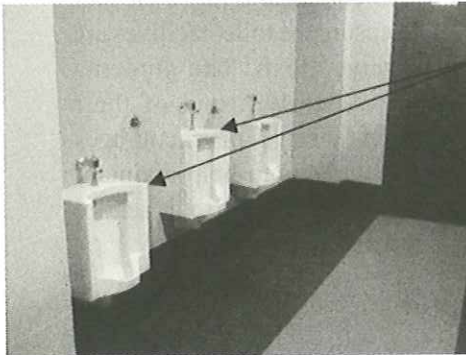
### Examples of Public Toilet Facility for People with Disabilities (PWD)



Sometimes, fixed handle bars / rails may not be suitable for people in wheel chairs.



Notice the sliding door and the press button access to the toilet is a suitable design for PWD.



Men's toilet: Note the different levels of arrangement for the urinals to accommodate need of children and adults.





**Hand washing facilities:**

This is an inadequate hand washing facility in a school toilet in Rawang, Selangor and a school in Teluk Intan, Perak.

Note: With frequent cases of food poisoning among school children, it is crucial that school toilets and canteens have adequate soap and clean flowing water for students to wash their hands.



A school in Miri where one of the workshops related to sanitation and public toilets was conducted, has a cleaner to ensure the toilet facilities are always clean. The students were clearly proud of their toilet facility. This encourages the students to help maintain the cleanliness of their school toilets.

Toilet design which is not at all suitable for people with disabilities at a school in Rawang.



No hand wash soap provided.

Not enough space for people in wheel chairs

The entrance to the toilet is too narrow.

This causes problems for PWDs with people who aid them and also poses problems to PWD in wheel chairs.



Irresponsible use of public toilets

Shoe print on the toilet seat.



There are posters available to encourage use of public toilets responsibly. (This here can be found at the Ministry of Natural Resource and Environment)

# Promotion Programmes on the Importance of MS 2015:2006 for Public Toilets

*Organised by the Department of Standards Malaysia with the cooperation of the Malaysian Association of Standards Users.*

School Workshops on the importance of MS 2015:2006, sanitation and hygiene in conjunction with the International Year of Sanitation 2008



*School workshop in Johore Bahru*



*School workshop in Miri, Sarawak*



*Another school workshop in Kuala Selangor, Selangor*





## Public Seminars : Penang and Sabah



*Public seminar on the importance of MS 2015 :2006 held in Penang on 16<sup>th</sup> of July 2008*

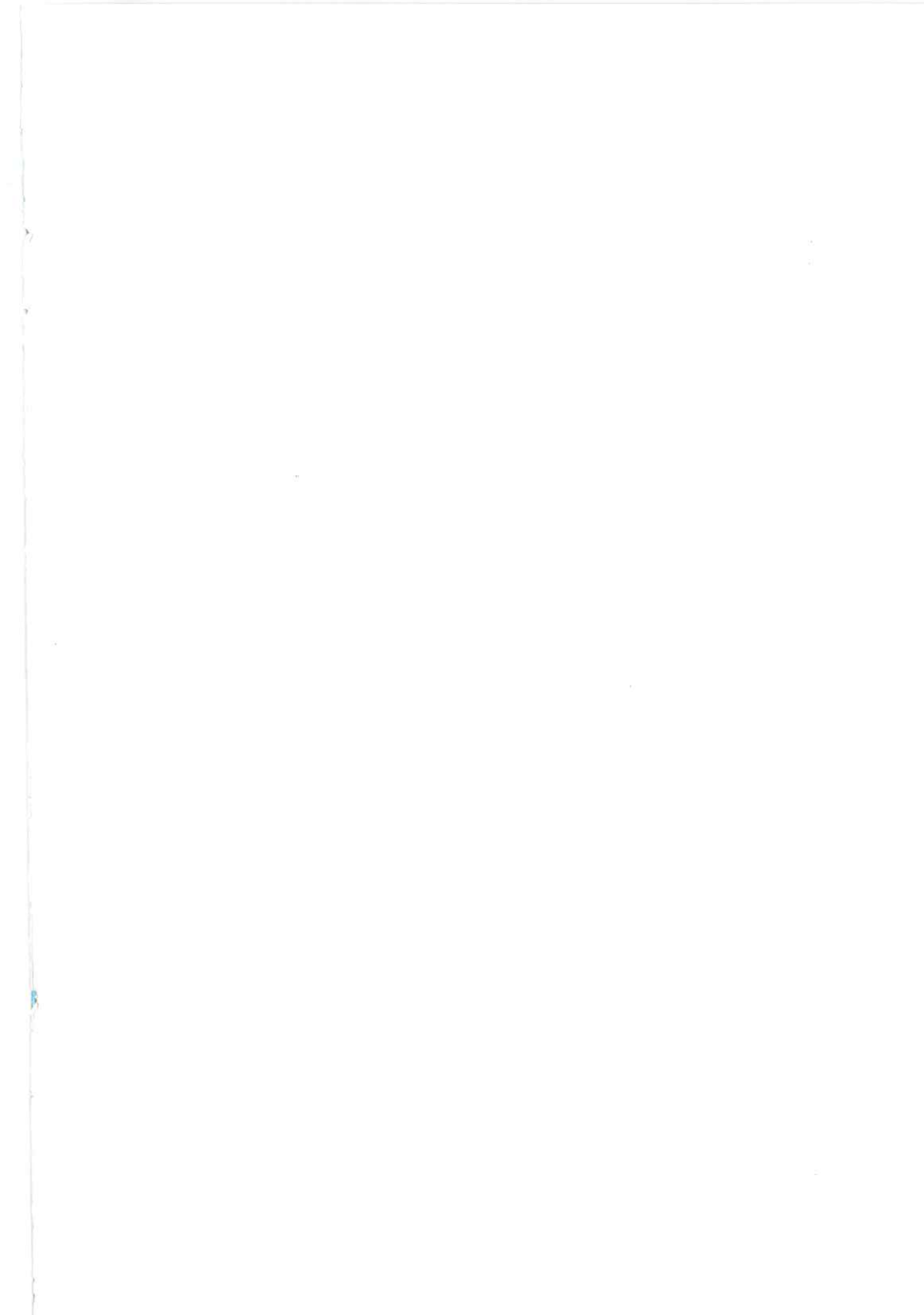


*Public seminar on the importance of MS 2015 :2006 held in Sabah on 21<sup>st</sup> October 2008*









## About the Department of Standards Malaysia

The Department of Standards Malaysia (STANDARDS MALAYSIA) is an agency under the ambit of Ministry of Science, Technology and Innovation (MOSTI).

STANDARDS MALAYSIA was officially launched on 28 August 1996 following the incorporation of Standards and Research Institute of Malaysia (SIRIM) into SIRIM Berhad. STANDARDS MALAYSIA took over the statutory roles in standardization, formerly carried out by SIRIM. In addition, STANDARDS MALAYSIA is also entrusted with the responsibilities of accreditation.

In performing its duties and functions, STANDARDS MALAYSIA is governed by Standard of Malaysia Act 1996 (Act 549).

For more information on the MS 2015:2006 and other Malaysian Standards, please contact:



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**STANDARDS**  
MALAYSIA

### The Department of Standard Malaysia Ministry of Science, Technology and Innovation

Century Square, Level 1 and 2  
Block 2300, Jalan Usahawan  
63000 Cyberjaya  
Selangor

Tel : 03-8318 0002  
Fax : 03-8319 3131  
e-mail : [info@standardsmalaysia.gov.my](mailto:info@standardsmalaysia.gov.my)  
URL : [www.standardsmalaysia.gov.my](http://www.standardsmalaysia.gov.my)

Standards



Prepared by:  
**Malaysian Association of Standards Users**

No. 24, Jalan SS1/22A  
47300 Petaling Jaya  
Selangor Darul Ehsan, Malaysia

Tel : 03-7877 4741  
Fax : 03-7873 0636  
e-mail : [info@standardsusers.org](mailto:info@standardsusers.org)  
URL : [www.standardsusers.org](http://www.standardsusers.org)

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