

Designing Safe School Zones: Traffic calming, pedestrian crossings, sidewalks, signage



iRAP

DECADE OF ACTION FOR
ROAD SAFETY



2021 - 2030

www.irap.org

 FIA FOUNDATION

Image credit: Amend

Road Design solutions

- Integrating children specificity into design
- Safer Schools road design solutions
- Examples and best practices



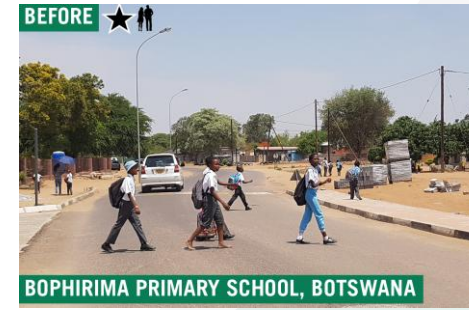
Image credit: Highways England



Image credit: TMR



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BOPHIRIMA PRIMARY SCHOOL, BOTSWANA



BOPHIRIMA PRIMARY SCHOOL, BOTSWANA

Images credit: iRAP

Kids are specific users

Essentially physical and cognitive specificities



Physical

- They are more often **obscured by obstacles** and are therefore **less visible to other road users**;
- This smaller stature can prevent them from **perceiving** certain traffic information.
(Toroyan & Peden, WHO, 2007 ; Rijk, 2008)
- Children's heads are proportionally larger than the rest of their bodies, compared to adults => **children's balance point is higher** and they are at **increased risk of head injuries**. (Toroyan & Peden, WHO, 2007)

Kids are specific users

Essentially physical and cognitive specificities



Physical

Children up to the age of 7 still have **difficulty stopping a movement abruptly**:

For example: stop running at the edge of a sidewalk.

Since children have a great need to move, they will **run or jump** more often when they are in traffic (DaCoTA, 2012a)

Kids are specific users

Essentially physical and cognitive specificities

Cognitive

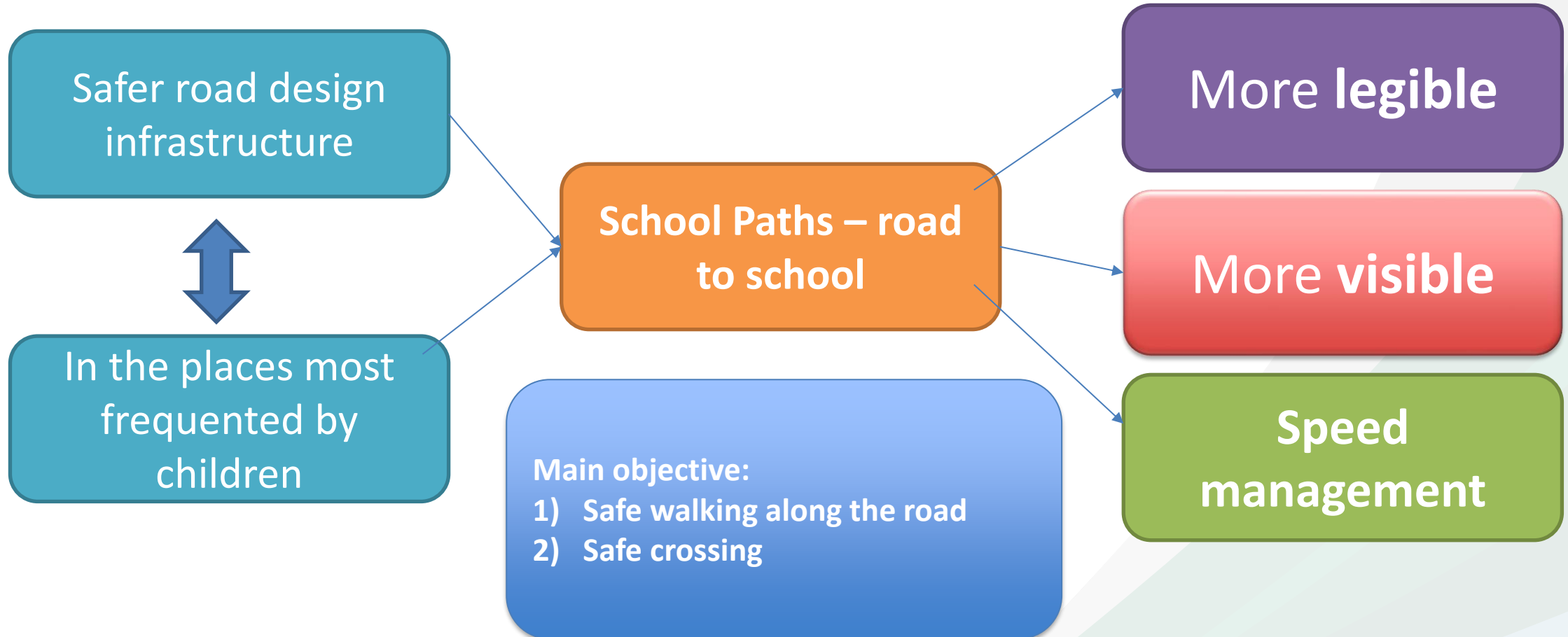
The sense of **perspective** remains **limited** in children **up to the age of 9**. Younger children are therefore **less able to judge the distance** between themselves and another object, especially if both are in motion (*Toroyan & Peden, WHO, 2007*)

Younger children find it difficult to perceive risks that do not appear in front of them, but next to them (*Sandels, 1975 dans DaCoTA, 2012a*)

Hearing is not fully developed until the age of 6, but even at this age, children still have **difficulty determining where a noise is coming from**. Children also **can't gauge the size and speed of a vehicle** based on the noise of an engine (*Toroyan & Peden, WHO, 2007*)



Accordingly



Road Design solutions

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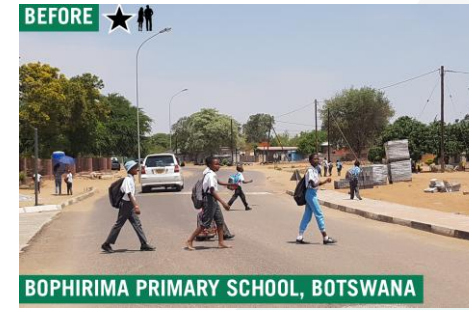
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BOPHIRIMA PRIMARY SCHOOL, BOTSWANA

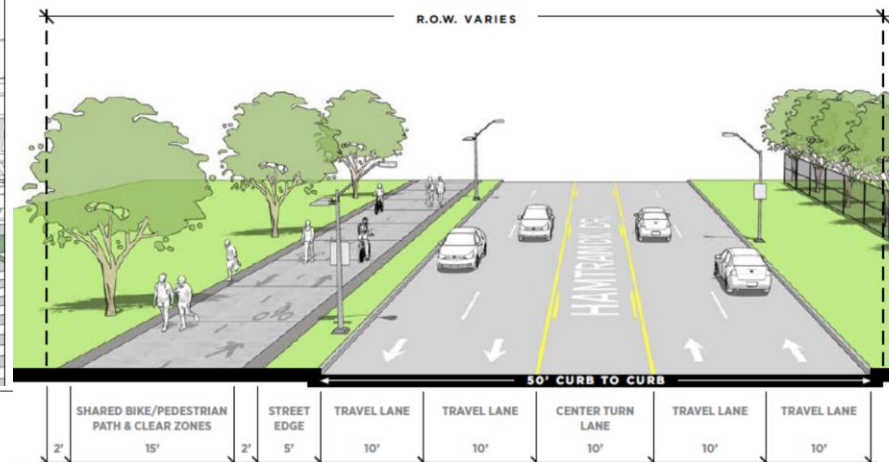
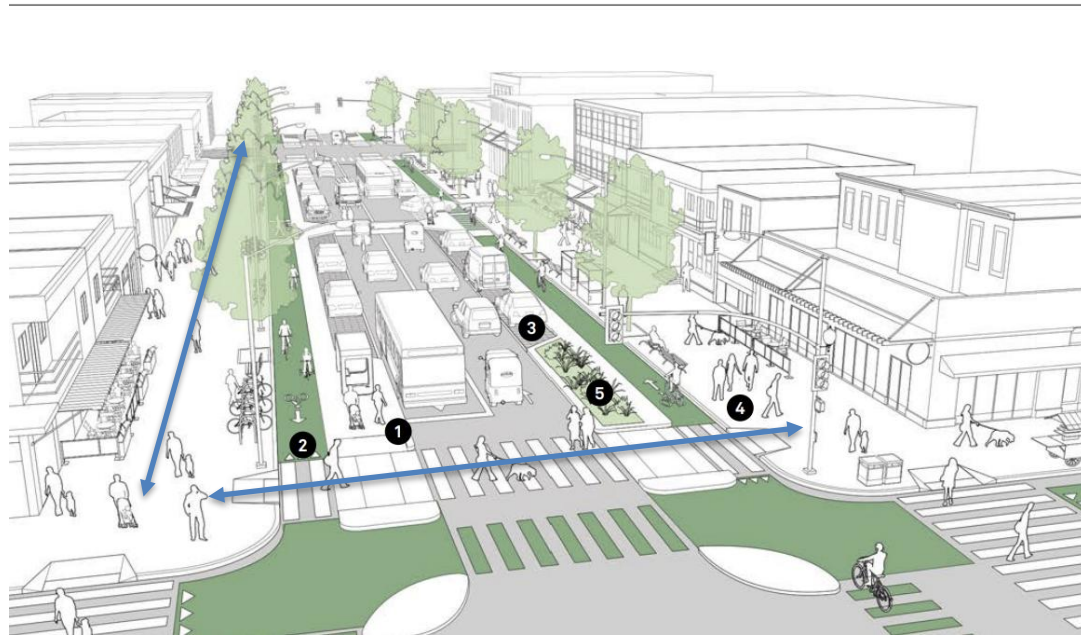


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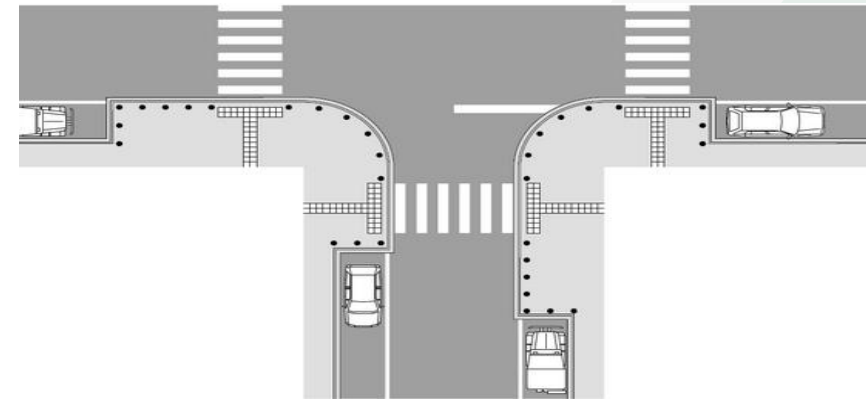
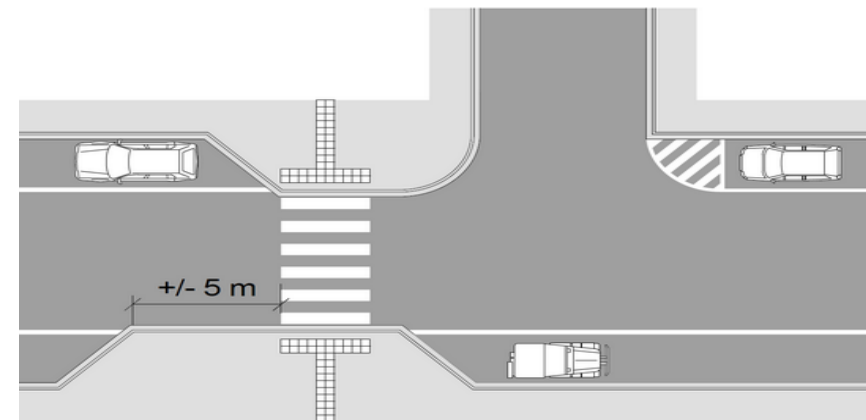
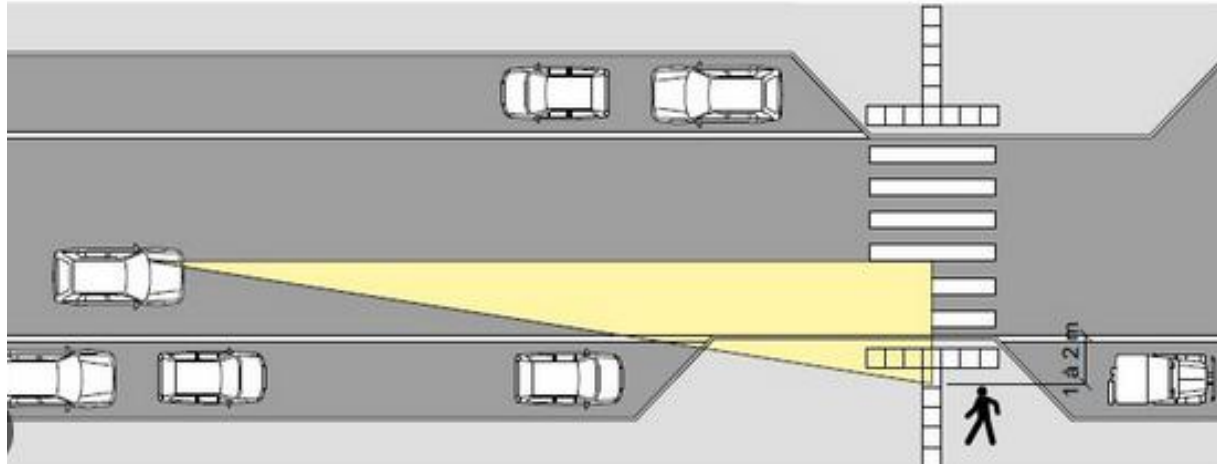
Images credit: iRAP

Visibility & legibility key steps

- Identifying the road to school
- Removing roadsides free of obstacles
- Shoulders and sidewalks
- Parking along the road = an issue
- Presence of kids/school well signaled



Use simple and very effective solution to improve visibility



Less legible



Design is encouraging over speeding

More legible



Design is encouraging speed reduction

Channelized access to protect movements

Sidewalks or separated path and/or barriers to protect from involuntary movements jumping on the road

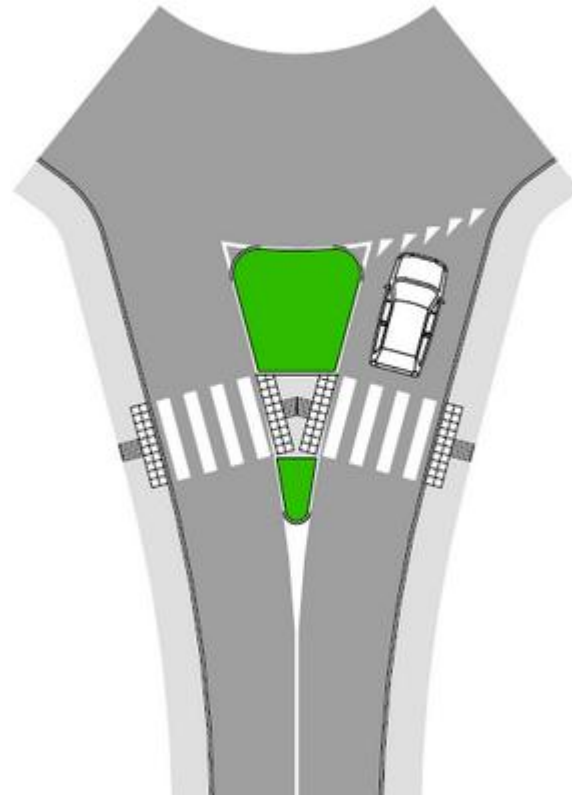
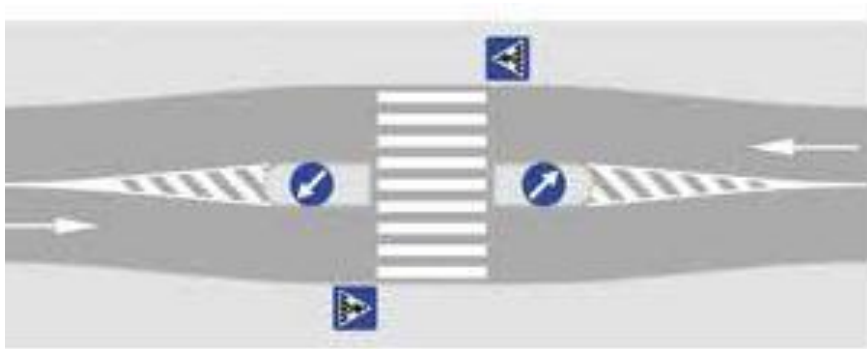


Safe crossing to prevent collisions

- Central refuge
- Raised crossing
- Marked & signaled crossing



Simple and very efficient ways of securing crossing



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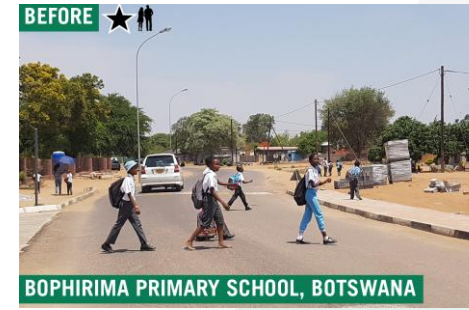
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Botswana

Star Ratings for Schools, iRAP-991-ACTA



BOTSWANA SUCCESS STORY



- The local NGO Society of Road Safety Ambassadors (SORSA) has incorporated SR4S since 2017
- Over 31 primary schools assessed
- Over 10 junior secondary schools assessed
- iRAP is been rolled out to over 31 District Road Safety Committees in the country



Participants learned how to use SR4S to assess safety around school environments. (Image credits: iRAP and EA991)



School visits for hands-on data collection experience (Image credits: iRAP and EA991)

Zambia

AMEND, Zambian Road Safety Trust

Before



After



Vietnam

AIP Foundation – National program for all primary schools

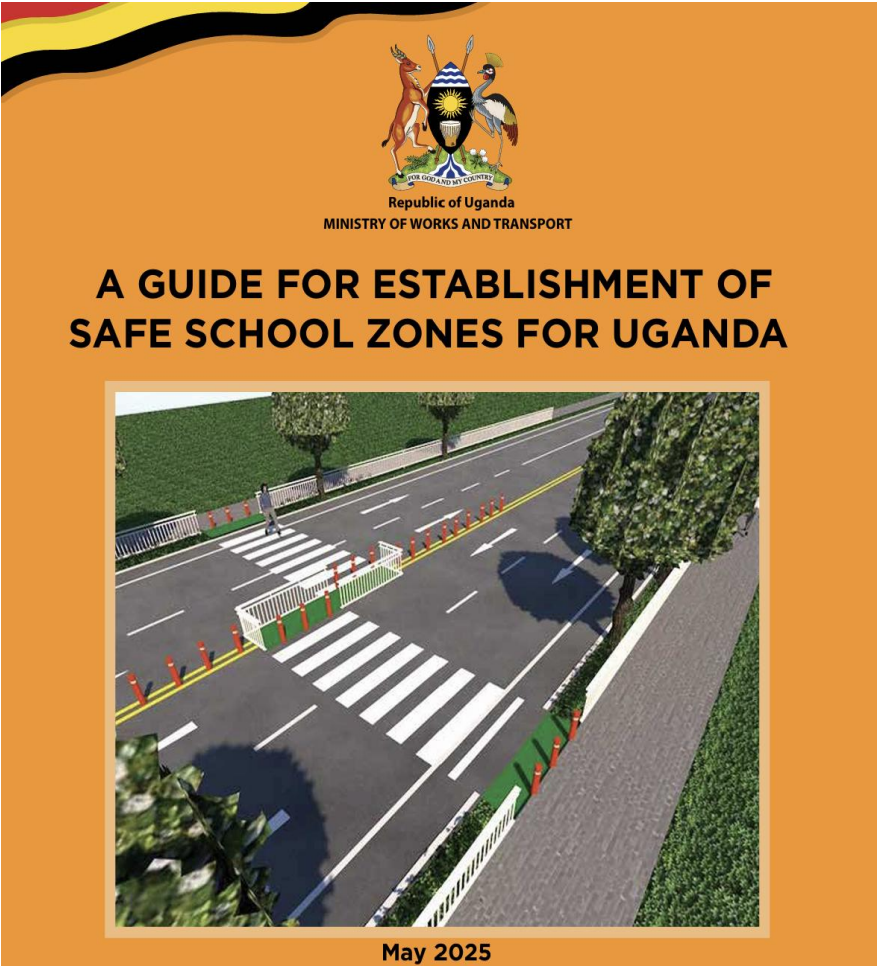
BEFORE



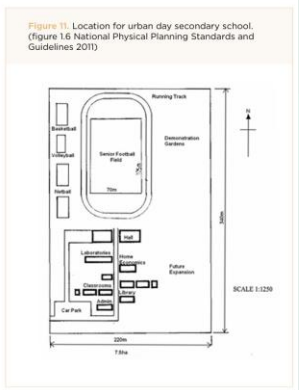
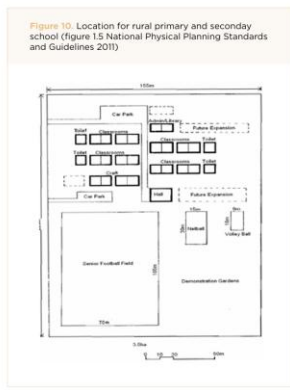
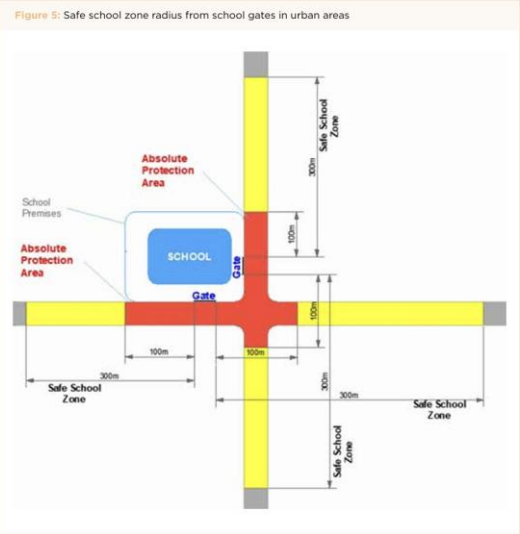
AFTER



Uganda – Safe Schools Design Guidelines

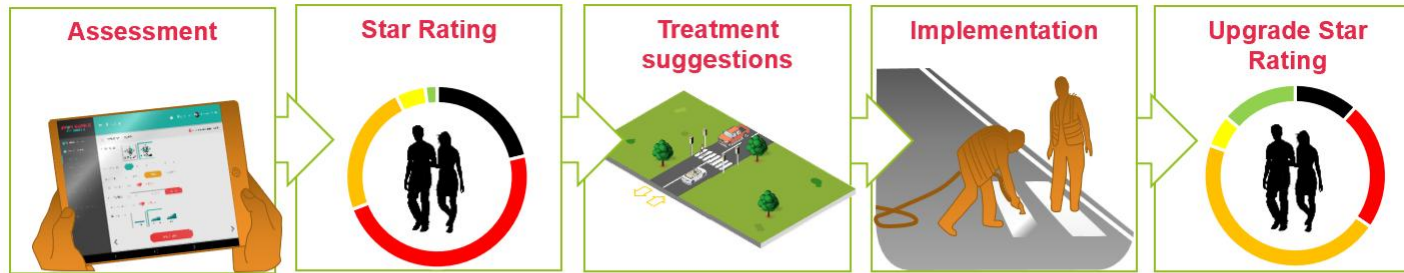


Republic of Uganda
 MINISTRY OF WORKS AND TRANSPORT
A GUIDE FOR ESTABLISHMENT OF SAFE SCHOOL ZONES FOR UGANDA
 May 2025



iRAP Star Ratings For Schools (SR4S)

Simple – Friendly – impactful



<https://starratingforschools.org>

Free certifying Training

Impact of Our Partners Using SR4S Globally



515,305
students made safer by upgrades



2,475
schools



84
countries



8,955
partners trained



USD\$11.7 million
invested



420
upgrades Star Rated

**as of December 2025*

For more information

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