



Leveraging road safety through donor-programs in Bank projects

Case study: Bloomberg Initiative for Global Road Safety (BIGRS)

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The World Bank's GRSF is partnering with other UN organizations, global NGOs, and academia to improve road safety under the US\$125 million Bloomberg Initiative for Global Road Safety (BIGRS), 2015-2019. The Program objectives are to reduce road crash deaths and serious injuries in 10 cities (Accra, Addis, Bandung, Bangkok, Bogota, Fortaleza, Ho Chi Minh City, Mumbai, Sao Paulo, Shanghai) and 5 countries (China, India, Philippines, Tanzania, Thailand) from the developing world.

As part of the partnership, GRSF leverages road safety in Bank-financed projects, by capturing synergies from BIGRS-funded technical assistance and training activities. Support from GRSF includes network level evaluations of the safety of existing road infrastructure and guidance on investment options for safer designs as well as enhanced road safety management capacity to relevant institutions. Prominent examples of this synergy are found below:

South-East Asia and Pacific

The Bloomberg program in the Philippines is informing and facilitating road safety in the Bank's portfolio. The engagements include rural roads (Philippines Rural Development Program - PDRP), national roads (Mindanao Connectivity Project, and post-construction assessments of National Roads Improvement and Management Program - NRIMP-2), streets along Bus Rapid Transit (BRT) corridors in Cebu and Manila, with activities planned for 2019. BIGRS will impact around 4,500km of roads across the country, supporting enhanced safer designs and implementation through iRAP assessments. In addition, via the Bloomberg program, GRSF is providing upgraded technical guidelines for rural roads, thereby influencing safer designs across the entire national network.

20 Bank projects

are improving road safety based on Bloomberg financed activities

In **Ho Chi Minh City**, the Initiative has supported the Green Transport Development Project, through safety assessments of a total of 118km baseline and 75km road designs, but also 37 school zones which will be affected by the new BRT system. The iRAP assessments predict a 22% reduction in fatalities and serious injuries compared to existing situation and 40% compared to the proposed feasibility study, with suggested recommendations implemented. Using municipality budget, and based on iRAP recommendations, 157 refuge islands, 11 raised pedestrian crossings, 8 footbridges and 11 bus stops upgrades have been built across the city recently. Also, from July 2018 to January 2019, four schools' zones were improved to 3-stars or better.



New raised pedestrian crossing, Ho Chi Minh City



Before and after bicycle lane construction on Zhengtong Road, Shanghai

Central and Northeast Asia

In **China**, BIGRS work is being delivered by ChinaRAP, the country's iRAP center of excellence and a legacy of the World Bank's Road Safety Engagement Strategy for China. ChinaRAP is currently involved with 10 Bank lending operations spanning six provinces and **Tianjin**, as well as a technical assistance to **Shanghai**. The Bank projects are at various stages of delivery, including planning (of which approximately 550km of baseline assessments are completed, 340km are ongoing, and 100km are planned) and design (of which about 120km are completed). In this way, the Bank is impacting the scale-up of infrastructure safety programs in China and supporting the central government on the application of risk assessment and safety interventions. The Initiative's engagement is resulting in improvements for all road classes, such as implementation of pedestrian refuge islands, adoption of central medians, re-design of bicycle lanes on urban streets for improved protection through intersections, as well as identification of locations for installation of guardrail, village gateway treatments, and delineation markers on various rural roads projects. At the same time, under BIGRS, ChinaRAP provides technical support to the Chinese Government for the implementation of the Highway Safety to Cherish Life project, which has treatments applied to more than 300,000km of roads and an overall investment of US\$5.42 billion over a three year period (2015-2018).

Africa

In Africa, the road safety components of the World Bank's US\$550 million **Tanzania** Development Corridors Transport project are also being supported by the Bloomberg program. Road safety recommendations identified under an ongoing assessment of 3,763km of road and related design reviews are improving the road safety performance in designs and implementation of the

Tanzania National Roads Agency (TANROADS) projects. At the urban level, road safety assessments of phase 2, 3 and 4 of the **Dar es Salaam** BRT corridors have been completed by BIGRS.



Ongoing national level survey-DCP, Tanzania

In **Addis Ababa**, almost 514km of network level infrastructure risk assessment is helping to identify high priority streets for road safety interventions. These assessments are highlighting significant risks posed to pedestrians, with as much as 85% of part of the road network assessed composing of 1 and 2 Stars¹. Given the magnitude of these risks, the city, with the help of the World Bank's Sub-Saharan African Transport Policy Program (SSATP) and BIGRS developed a road safety strategy and related implementation plan to address and improve road safety. The city has already started a footpath improvement and speed management program and plans to incorporate more aspects of the implementation plan into its annual works program. A total of 50km of walkway rehabilitation has been completed at around US\$4 million investment and further

1 The iRAP system works on a scale of 1-5, with 1 being the most unsafe and 5 being the safest.

US\$9 million planned for FY19. Road safety evidence generated under the program is already informing the World Bank **Ethiopia's** US\$300 million Transport Systems Improvement Project (TRANSIP), mainly through baseline road safety assessment and design review of 5 corridors and grade separated pedestrian crossings. The TRANSIP program has also been selected for road safety impact evaluation through the Development Impact Evaluation - DIME (employing DFID research funding dedicated to road safety evaluations) with data from the Bloomberg Program being used for evaluation.

Latin America

In **Bogotá**, a network of more than **170 km** of roads has been assessed for road safety risks in the BIGRS program. The results show that over 40% of this network has an iRAP star rating of 1 or 2 for bicyclists, and over 60% is 1 or 2 star for pedestrians. In order to complement the road safety recommendations provided through BIGRS² and to increase the number of cyclists on the roads, the city requested the Bank's advisory services to improve data analytics on bicycle travel patterns, assist in the development of a personal security strategy, and advise on policy issues related to pedicabs. These advisory services will lead to a more comprehensive cycling policy for Bogota, which will allow the city to plan safer, well-connected and low-stress cycling networks.



Avenida Leste-Oeste (8.5km), Bicycle lane and 50km/h speed limit, Fortaleza, Brazil

Concluding Remarks

It is widely acknowledged that road crashes disproportionately impact some of the world's poorest and most vulnerable road users. Thus, diminishing the Bank's efforts towards achieving its twin goals (of ending extreme poverty and enhancing shared prosperity) largely, as a consequence of the economic and welfare burden of road traffic deaths and injuries. A recent study³ by the World Bank's GRSF, financed by the Bloomberg program, is one of the first systematic estimates of the economic impact of reducing road traffic deaths and injuries. There is a Connections Note summarizing the research and its results, which demonstrate the significant retarding effect of crashes on economic growth⁴.

Therefore, leveraging road safety through partnership between the Bloomberg program and World Bank's operations projects takes us closer to the twin goals. The GRSF-led iRAP assessments and other BIGRS analytic work are also expected to improve road safety delivery in projects funded by other multilateral development banks. From a sustainability perspective, ensuring funding to implement the actions recommended by the Bloomberg-funded analysis is a critical success factor. An important highlight of this collaborative work is that its successes serve as pilots to scale up projects at a national level, some of which have already led governmental institutions in the Philippines, Thailand, and Colombia to request road safety advisory services from the World Bank.

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Recommended citation:

Global Road Safety Facility (2019). Leveraging Road Safety Through Bloomberg Philanthropies Grant Funding. GRSF Note 2019.1. Washington DC, USA: Global Road Safety Facility, World Bank.

2 <http://www.eltiempo.com/bogota/bicarriles-para-bogota-en-el-2018-163388>

3 World Bank. 2017. The High Toll of Traffic Injuries: Unacceptable and Preventable. A World Bank Study. Advisory Services and Analytics Technical Report P155310. Washington, DC: World Bank.

4 World Bank. 2018. The Cost of Inaction: Can We Afford Not to Invest in Road Safety? A World Bank Connections Note. Washington, DC: World Bank, May 2018.