

PRESS RELEASE

09.01.2020

IDIS presents Bicycle Research Results, Recommendations

In 2009, Davao City's Bicycle Ordinance was passed to promote and provide bicycle user safety, infrastructure services, public facilities, and programs. Despite the passage of policy, the provisions of bike lanes and other targets were not implemented due to traffic and structural and system conflicts. As we are all adapting to the 'New Normal' brought by the global pandemic we are experiencing today, most of the people's access to transportation is minimized which forced large number of citizens to use bicycles as a very effective and safest way to travel.

However, there are numerous problems with the ordinance that affect the bicycle users such as the long overdue and sudden re-implementation and review of the ordinance, overlapping rules and requirements of existing local policies, lack of bicycle safety support facilities such as bicycle lanes and parking areas, and on-the-ground traffic and road issues, obstacles, and risks. With these, the Interfacing Development Interventions for Sustainability (IDIS) Inc. conducted a research for this to help on the amendment of the ordinance towards a green, sustainable, and future-ready city.

The research started last June 2020 where general community quarantine implemented in the city. The methodologies of this research are the City-Wide Online Survey, Roadway Audit, and Count Survey. There were no interviews involved in this research because of the strict health protocol. After two months of research, the results were consolidated and IDIS would like to highlight some results and policy recommendations for infrastructure, public service, traffic management, governance, and lifestyle, and culture.

Result

Bicycle User Demography

- 1. Age, Gender, Education, and Occupation Age groups were classified according to different stages of human development. Most bicycle users fall within young and mid-aged adulthood. Both online and count surveys shows large domination of male bicycle users from other genders. **The average ratio of females to males is 1:5**. From the online survey, most bicycle users attained college level education. Occupational fields are variously distributed, most of which fall under online services, government, and medical services (front-liners).
- 2. Road and Traffic Experience Majority of the bicycle users have less than 1 year of experience in using main roads and highways. Also, 45% have responded to not having a driver's license.
- 3. *Bicycle Type* Both survey methods present that **Mountain Bicycles gained the highest value**, due to availability, terrain, affordability, and multi-purpose design. Other pedal-





powered transportation types found during the count survey were 1. service bikes (taho/balot), 2. trikes, 3. carts/pedal-kariton, and 4. 2-passenger "angkas/sabak" bike.

- 4. *Bicycle Ownership* Most users own 1-2 units of bicycles according to the online survey. In terms of the nature of ownership, 92% of the respondents own bicycles while the rest borrow and have purchased through installment.
- 5. Accessories used Based on the online survey, the top accessories and equipment that cyclists have are helmet, tail light, and gloves. However, in the Bicycle Count Profile, 82% of the bicycle users were not wearing helmets and 6% had no lights installed on their units.
- 6. *Bicycle Use and Travel Reasons* The leading reasons why the respondents use bicycles are for **recreational, sports, and work-related.** They claimed, however, that the common reasons for NOT using bicycles are the **lack of bike lanes and concerns on irresponsible driving**.

Policy Survey

- 1. Bicycle Registration 93% of bicyclists are not registered to the local government while 2% are currently registered. Few responses are registered to other cities and past registrations. 50% affirmed on registering the bicycles, however, 33% of the 50% responded "yes, but not for now" due to COVID reasons. 40% rejected the required bicycle registration.
- 2. Bicycle Registration Fee 60% (those selected a breakdown) are willing to pay for an annual registration within the range of P20-P150 to be allotted to bicycle infrastructure (bicycle lanes and racks) and user insurance. However, 40% responded not to require a registration fee.
- 3. Bicycle Equipment Requirement Most of the bicycle users (49%) selected a basic set that includes a helmet, front/tail lights, and horn/bell. Bicycle users find it essential to have sound and alarm devices for safety.
- 4. *Bicycle Width and Lane Type* 54% prefer to have fully-painted striped bicycle lanes, 20-30% responded to have protected lanes such as pop-up barriers and planters. On width, bicycle users feel safe and comfortable with a **2-meter wide** bicycle lane.
- 5. *Bicycle Lane Sharing* Majority of the bicycle users respondents that Bicycle Lanes should be exclusive for bicycle users only. However, a number responded to also share with 1. skateboards, 2. joggers, 3. Kick Scooters and 4. Handicapped. Motorcycles and PUV Loading/Unloading were the lowest.
- 6. Bicycle Parking Rack 92.8% are in favor of requiring establishments to provide designated bicycle parking racks. On establishments without bicycle racks, 60% of bicycle users responded to just lock their bicycles to the nearest stable structure such as PWD ramp railing, posts, etc.





Geo-Spatial Information and Mapping

- 1. *Bicycle Parking Racks* High concentration of parking racks found in the city's central business district, according to survey the safest and secured areas to leave bicycles are in Abreeza, Alorica, SM Lanang, and City Hall/Public Racks.
- 2. Bicycle Travel Movement Most cyclists point of origin are found at residential areas in the city such as Talomo, Matina, and Buhangin while most travel destinations concentrate on the Poblacion Core for work-related travel reasons. This follows the current vehicular traffic movement of the city during rush hours. For recreational reasons, most cyclists travel to Calinan and Toril districts. Many areas identified with high origin and destination are without delineated bike lanes.
- 3. Road Network Use Frequency Roads that are most used by the bicycle users are 1. Mcarthur Highway, 2. Quimpo Boulevard and 3. Poblacion Grid Streets and 4. J.P Laurel. Currently, a portion of Mcarthur Highway from Ulas to Matina does not have bicycle lanes.
- 4. Bicycle Count Interval Rate The highest bicyclists were counted at McArthur Highway and Quimpo Boulevard with an interval rate of 1 bicycle per 30 seconds, during rush hours in the Morning and Late Afternoon.
- 5. Bicycle Accidents According to respondents, most accidents observed were found at C.P Garcia Highway Diversion Road, Shrine Hills Road, Mcarthur Highway, and J.P Laurel. Possible reasons are influenced due to its physical terrain, fast-moving vehicles, and obstructions.
- 6. Bicycle Roadway Obstacles Research has recorded over **80 roadway obstacles** including drainage holes, utility posts, non-permanent obstacles such as parked vehicles, and loading/unloading vehicles. J.P Laurel was found to have many utility posts and drainage holes. Torres avenue found to have many drainages with holes aligned with the same direction of bicycle tires, hence dangerous for bicycles with thinner tires.

Recommendations

On Infrastructure, Planning, and Public Facilities, IDIS would like to recommend the following:

Bicycle Lane Network – Provision of bicycle lanes at identified national highways and other city roads for the safety of bike commuters crossing districts.

Barrier-Free Bicycle Lanes – Public works should address the issues on permanent obstacles such as drainage holes, utility posts, and unfinished constructions. Movable obstacles such as parking signs and park vehicles should be strictly enforced.





Bicycle Lane Signage & Width – Clearer signage and fully-coated/painted operating space for at least 2 meters wide.

Well-lighted Bicycle Lanes – Safe and bright lights from light posts for the safety of bicycle users at night, switching of higher lumen-LED lights at identified dark areas.

Bicycle By-Pass Path – Require high-traffic establishments such as shopping malls, schools, terminals, and offices to provide Bypass Path for bicycles next to their loading/unloading areas and bus stops.

Bicycle Yield Areas – Plan and provide bicycle yield areas for the safety of bicycle users in crossing main intersections.

Public Bicycle Repair Station – Provision of bicycle repair stations at public parks and resting areas along identified high number of bicycles.

Bicycle Racks – Improvement of bicycle rack design, public racks, and requirement of establishments. Formulation of ratio on occupancy vis-à-vis rack capacity. Provision of racks at public parks, barangay halls, and government offices.

Urban Streetscapes and Greenery – Enhancement of greenery along bicycle lanes such as providing planter-protected bike lanes, implementation of the adopt-a-street island and pocket, and linear parks as resting areas.

Bicycle Circuit/Network Plan – Connecting bicycle lanes, car-free routes, paths, nature trails, provision of non-main road or low-traffic road bicycle sharrows/lanes, as well as community-level bicycle safe streets for school, parks, and houses.

Bicycle Lane/Path Surface Pavement – For current bicycle lanes, IDIS recommends existing pavements, striped/fully painted with an anti-skid coating. Permeable concrete or asphalt, striped full-painted with anti-skid coating for new road construction projects and closed-void permeable/porous blocks, turfs, bricks for esplanades and park bicycle paths.

High Priority Bus System (HPBS) & Davao Transport Project – Since the local government plans to shift into HPBS, IDIS also recommends the following: Bicycle Parking Racks/Areas at Terminals; Bicycle carriers and racks installed at each bus unit; By-pass paths at bus stations or loading/unloading areas; Safe bicycle and pedestrian access networks to every terminal and bus stations; Implementation of identified Transit-Oriented Zones; and Public Bicycle Sharing/Rent Systems (e.g. Obike, Kuala Lumpur).

On Traffic System and Management, IDIS would like to recommend the following:

Public Awareness and Campaign – Mainstream public information on traffic rules on bicycle lanes and other facilities, along with violations and penalties.





Traffic Enforcement – Strict enforcement of parked and temporarily parked vehicles, PUV Loading/Unloading Zones, driving at bicycle lanes, and crossing intersections to ensure the safety of all road users.

Orientation and Continuing Education – Upon registration, bicycle users should be oriented on bicycle traffic laws and safety protocols as well as defensive driving education to motorists and conduct of "Bike Clinics".

On Administration, IDIS would like to recommend the following:

Registration – Majority of the respondents are willing and in favor of registering their bicycle units but only if the health emergency is already lifted and it is already safe to conduct mass gatherings or that safety protocols are strictly implemented. Online or barangay-level registration is highly encouraged. Bicycle user registration or licensing method is more effective than registering their units.

Registration Fee and Taxes – Majority (those selected a breakdown) are willing to pay for an annual registration within the range of **Php 20-150**. The local government should allot the taxes to concrete bicycle program and development, maintenance, safety, providing public facilities, and other user benefits.

Bicycle User Requirements – Basic accessory requirements should include a helmet, front light, tail light or reflector, and a bell or horn.

Harmonization & Enactment of Policies – Review of the provisions of both Bicycle Ordinance and Local Traffic Code to avoid overlapping, conflicting, and/or doubling of such requirements, fees, violations, penalties, etc.

Policy Inclusivity – Rules and regulation of the ordinance should not only focus to regular bicycle users, but to also consider providing safety to other pedal-powered means such as handicapped specialized trikes, kick scooters, and service carts.

Research and Monitoring – Continuation of research and monitoring surveys, public surveys, bicycle counts, and obstacle mapping to better understand bicycle traffic and safety problems.

On Bicycle Lifestyle and Culture, IDIS would like to recommend the following:

Cycling-Oriented City – Encourage bicycles as a primary mode of transportation, not only for sports and recreation. Cycling lifestyle is practical, easy, safe, and simple.

Gender Equality in Mobility – Bicycle mobility comfort and safety should benefit all genders. Halt traffic bullying, discrimination, and catcalling.





Corporate Bicycle Programs – Providing facilities and programs for bicycle-using employees, group rides, parking racks, dressing rooms, renting systems, health & wellness, etc.

The results of the research show that Davao City has a long way to go towards being a safe cycling-oriented city. Development should not stop upon completion of physical infrastructure only but should be a continuous planning, implementation, and assessment to meet future demands. The effects and flaws of the car-centric and poor traffic planning should be a major turning point. People - pedestrian, bicyclists, and other forms of micromobility are "People-on-Wheels" that must be highly protected. We should aim for sustainable mobility as we continue to work on realizing and maintaining the city's tagline "Life is Here".

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