



UP study cites economics of travel time. People either maintain or enhance their capacity to earn if they can reach their destinations on time, or earlier.

Conversely, they become less productive in varying degrees while held up in traffic owing to poor road conditions or traffic jams. For private car owners, as well as operators of passenger buses and jeepneys and cargo trucks, prolonged travel time translates into higher vehicle operating cost and more fuel consumption.

A study conducted recently by a team of academicians called UP-Planades, (an acronym for UP-Planning and Development Research Foundation Inc.) essayed on the economics of travel using as specimens the North Luzon Expressway (NLEX) that offers "seamless travel" and the nearby MacArthur National Road (MNR).

The research team, headed by UP Dean Primitivo Cal used as benchmarks data culled from a series of test drives on both highways running parallel across Central Luzon. The MNR is commonly considered as an alternative to the NLEX.

"If motorists choose to travel on MNR instead of the NLEX, they would incur additional expenses in vehicle operating cost in the amount of P257 per car. In addition, they would incur a penalty of about P800 due to higher travel time," the research document stated.

Since travel time along the MNR is generally four times longer than on the NLEX, it was estimated that passengers of a large bus collectively lose a total of P3,120 per trip, it added.

The study team has also estimated an average increase of about 30 kilometers per hour (KPH) of vehicular speed along the NLEX compared to data on the North Diversion Road (former name of NLEX).

"This increase in speed has positive impact on the various road users of NLEX," the study said.

It explained that every car user enjoys savings of about P350 over the entire 84-kilometer length of the NLEX. "This amount is significantly higher than the toll fee increase of P120," the team pointed out.

On the other hand, large bus operators enjoy much bigger savings of P1,040 per trip. "The (bus) operator therefore, would be well justified should he pass on part of the toll fee increase to bus passengers."

Two-axle truck operators generate savings of about P70 per trip, mainly due to the reduced travel time. "The saving enjoyed by truck operators is modest because the NLEX improvement allows trucks to run at speeds above optimum with the consequence of higher direct operating cost, including fuel consumption," the team explained.

The study was commissioned by the MNTC to determine the impacts of the NLEX improvements on such factors as road user cost, road safety and land use and value changes.

Road user cost consisted of basic vehicle operating cost (BVOC) and travel time cost. The BVOC components that were considered included fuel, lubricating oil, tires, spare parts, maintenance labor, capital, crew (for commercial vehicles) and overhead (based on Department of Public Works and Highways 2006 unit values).

Monetary value was attached to travel time on the theory that time spent traveling results in benefits or income from other foregone productive activities.

Travel time and delay surveys were conducted with six runs along NLEX, three runs along the MNR, and three runs along laterals connecting both roads.

These survey runs were made for both northbound and southbound directions, and done on a typical weekday covering the morning, noon and afternoon peak periods.

Travel speeds along the NLEX prior to the improvements were drawn from previous studies, while detailed road condition inventory for the MNR was conducted based on pavement condition, width and other geometric conditions that affect traffic flow and vehicle operating cost.