

Case Study:

Evaluation of Regional Safety Program Using INVEST Ohio

Lead Agency: Northeast Ohio Areawide Coordination Agency (NOACA)

INVEST Module: System Planning, Project Development, and Operations and Maintenance

The Northeast Ohio Areawide Coordination Agency (NOACA) is the metropolitan planning organization (MPO) for the Greater Cleveland area. NOACA used the INVEST self-assessment tool to evaluate its current Regional Safety Program (RSP), to identify improvements, and to identify where sustainability principles can be better incorporated. The ultimate goal was to improve the region's sustainability by reducing fatal and serious injuries that negatively impact the social and economic principles through loss of life, injury and damages to personal and public property.

Regional Safety Program

Since 2008, NOACA has been actively analyzing crashes in the region and conducting road safety audits at various intersections. The Cleveland metropolitan region does not currently have an adopted goal or performance target related to transportation safety. To better focus efforts on reducing fatal and severe injury crashes in the Cleveland metro region, NOACA began revamping its Regional Safety Program (RSP) in the fall of 2013. To assist with the changes to the RSP, NOACA applied for an INVEST grant.



Transportation professionals conducting a road safety audit of an intersection.

(Courtesy of NOACA)

Scoring Summary

NOACA evaluated the Regional Safety Program using criteria from all three of the INVEST modules: System Planning, Project Development and Operations & Maintenance with a focus on identifying areas of strength as well as areas to improve. Additionally, it was important to be able to provide FHWA with meaningful feedback regarding the tool's strengths and opportunities for improvement. The Regional Safety Program scored nearly 30% of available points, but by adopting recommendations based on using the INVEST tool, the score increases to 70%.

Recommendations and Identification of Improvements

As a result of NOACA's evaluation using the INVEST Tool, NOACA found that there is room to better incorporate sustainability principles into the RSP in the following areas:

- Collaboration - across disciplines, jurisdictions, and planning documents and processes
 - Safety & Operations Council (SOC) - NOACA recently established the SOC to bring together the E's of safety into one group (engineering, enforcement, education, emergency response and evaluation) and provide a forum to discuss overlapping issues of safety and operations.

- Development of Transportation Safety Action Plan (TSAP) - The goal of the TSAP is to use a data-driven framework to provide targeted recommendations for strategies to reduce fatal and severe injury crashes. The work is currently underway and will be completed and approved by the NOACA Board by the end of 2016.
- Coordination of Congestion Management Process (CMP) and TSAP
- Promoting traffic safety - The TSAP presents a good opportunity to coordinate and promote traffic safety across the region. Efforts to raise awareness of safe driving habits and traffic safety issues are critical to reducing fatal and serious injury crashes as human factors play a role in 90 percent of crashes.
- Data-driven Processes - identifying emphasis areas, selecting proven countermeasures, and developing quantitative performance measures
 - Safety performance measures and targets - MAP-21 requires MPOs to set targets for safety performance measures. NOACA will be evaluating the current proposed measures and targets and whether to go beyond the minimum measures and targets as part of the TSAP. Targets for specific sub-groups like bicyclists, pedestrians, and other emphasis areas will be explored.
 - Use data-driven process to identify strategies to reduce fatal and serious injury crashes – Develop a targeted set of safety strategies and countermeasures and create an evaluation framework to guide the regional planning process.
 - Deploy new crash analysis tool - a consulting firm developed a High Crash Corridors analysis tool for NOACA. The tool is a GIS-based crash analysis program that efficiently identifies locations (i.e. corridors, segments, sub-areas) that may potentially benefit from safety-focused projects or countermeasures.
- Implementation – assigning responsibilities, timeframes, and evaluation metrics and processes
 - TSAP will include an implementation plan - Development of the TSAP is only the first step in improving regional safety. It will need to include a defined implementation plan, including timeframes and responsibilities for identified actions.
 - Incorporate evaluation in to the Regional Safety Program
 - Develop a pedestrian infrastructure program

More details on each of these recommendations can be found in the full report. [NOACA INVEST Report](#) and [Appendix](#).

Key Outcomes of Using INVEST

The INVEST tool allowed NOACA to assess the sustainability of our current Regional Safety Program and incorporate sustainable strategies into the development of a Transportation Safety Action Plan (TSAP). The results will be used to refine NOACA's regional safety goals and objectives, evaluate and prioritize projects and establish safety performance measures and targets.