

Reducing transport emissions in Aotearoa New Zealand

Planning resource - Light VKT-reduction planning in our major urban areas

Breaking car dependency

The task is to intervene to reduce light vehicle distance travelled by 20% nationally from where we would otherwise expect to be in 2035 through choosing to adopt more efficient and sustainable modes, while decreasing the need to travel by car, reducing distances and number of trips.

In this page, is a curated list of research and evidence to support VKT reduction programme planning.

Rationale

Target 1 of the NZ Emissions Reduction Plan for transport

<https://environment.govt.nz/publications/aotearoa-new-zealands-first-emissions-reduction-plan/transport/>

Ministry of Transport climate change work

<https://www.transport.govt.nz/area-of-interest/environment-and-climate-change/climate-change/>

Decarbonising Transport Action Plan 2022-2025

<https://www.transport.govt.nz/area-of-interest/environment-and-climate-change/climate-change/>

Background

Waka Kotahi sustainability action plan and monitoring report

<https://www.nzta.govt.nz/about-us/about-waka-kotahi-nz-transport-agency/environmental-and-social-responsibility/toitu-te-taiao-our-sustainability-action-plan/>

Avoid Shift Improve framework

<https://publications.iadb.org/publications/english/document/Mitigation-Strategies-and-Accounting-Methods-for-Greenhouse-Gas-Emissions-from-Transportation.pdf>

A-S-I approach described

https://ledsgp.org/app/uploads/2016/01/SUTP_GIZ_FS_Avoid-Shift-Improve_EN.pdf

Transport 2035 - To assist with conversations generated by the Emissions Reduction Plan (ERP), Climate Emergency Response Fund (CERF) and the Decarbonising Transport Action Plan 2022-25 Waka Kotahi launched the emissions calculator, Transport 2035, in November 2022. The tool can be used to estimate future land transport CO₂-e emissions in Aotearoa New Zealand. It has been designed to support conversations about land transport emissions and the level of impact different transport modes have on meeting regional and national emissions reduction targets.

<https://transport2035.mrcagney.works/dashboard>

Existing mode-shift plan Keep Cities Moving

<https://www.nzta.govt.nz/walking-cycling-and-public-transport/keeping-cities-moving/>

Evidence

Sector research programme

<https://www.nzta.govt.nz/resources/research/>

[Reports](#)

[Research notes](#)

VKT baseline projections and methodology

<https://www.nzta.govt.nz/resources/research/notes/008>

VKT evidence pack

<https://www.nzta.govt.nz/planning-and-investment/national-land-transport-programme/viewupdate/290>

Resources

<https://www.nzta.govt.nz/resources/land-transport-greenhouse-gas-emission-modelling-review/>

Transport Knowledge Hub past event publications

<https://www.knowledgehub.transport.govt.nz/topic-hubs/environment-hub/>

Research presented in the link above includes the 2022 subnational LVKT baselining and the analysis of travel in our Tier 1 & 2 major urban areas.

Household travel in our major urban areas

<https://nzta.govt.nz/resources/household-travel-in-our-major-urban-areas>

ITF Decarbonising Transport intervention catalogue

<https://www.itf-oecd.org/transport-climate-action-directory-measures>

NZ Household Travel Survey

<https://www.transport.govt.nz/area-of-interest/public-transport/new-zealand-household-travel-survey/>

Vehicle fleet emissions model

<https://www.transport.govt.nz/statistics-and-insights/transport-outlook/sheet/updated-future-state-model-results>

Vehicle emissions prediction model

<https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/environment-and-sustainability-in-our-operations/environmental-technical-areas/air-quality/vehicle-emissions-prediction-model/>

Vehicle emission mapping tool

<https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/environment-and-sustainability-in-our-operations/environmental-technical-areas/air-quality/vehicle-emissions-mapping-tool/>

Planning

Waka Kotahi planning and investment

<https://www.nzta.govt.nz/planning-and-investment/>

Interim guidance

<https://www.nzta.govt.nz/planning-and-investment/funding-and-investing/optioneering/resources/climate-change-interim-guidance-for-adaptation-and-mitigation/>

A good example from Scotland as a reference to initiatives and approach

<https://www.transport.gov.scot/news/reducing-car-use-for-a-healthier-fairer-and-greener-scotland/>

A good example from Ireland (useful due to similarities in size, urban/rural mix, recent transport investment patterns, high levels of car dependency)

https://www.oecd-ilibrary.org/environment/redesigning-ireland-s-transport-for-net-zero_b798a4c1-en

Climate Assessment of Transport Investment approach is being reviewed and further developed

presently for assessment of Tier 1 Councils' plans in the upcoming RLTP round, a description of version_1 can be found here

<https://az659834.vo.msecnd.net/eventsairaueprod/production-harding-public/708e80e6c171408bb76790414f8ddd4e>

Implementing

Signalling GPS24 Indicative strategic priorities Engagement Paper

<https://www.transport.govt.nz/area-of-interest/strategy-and-direction/government-policy-statement-on-land-transport-2024/>

Synergies - Benefits framework

<https://www.transport.govt.nz/area-of-interest/strategy-and-direction/transport-outcomes-framework/>

Synergies - Road to Zero

<https://www.nzta.govt.nz/safety/what-waka-kotahi-is-doing/nz-road-safety-strategy>

Dependencies

<https://www.nzta.govt.nz/planning-and-investment/learning-and-resources/benefits-management-guidance/the-land-transport-benefits-framework/introduction-to-the-benefits-framework/>

Monitoring

NZ Government official VKT reporting

<https://www.transport.govt.nz/statistics-and-insights/road-transport/sheet/vehicle-kms-travelled-vkt>

See VFEM & VEPM are again useful here, links above under Evidence

PT patronage and trip data reporting

<https://www.nzta.govt.nz/planning-and-investment/learning-and-resources/transport-data/funding-and-transport-dashboard-and-open-data/>

Statistics NZ transport GHG-emissions data

<https://www.stats.govt.nz/publications?filters=Transport%2CGreenhouse%20gas%20emissions%2CInformation%20releases>

Multi-benefit assessment

<https://www.adb.org/publications/toward-sustainability-appraisal-framework-transport>

Evaluating

Looking back, pausing in reviewing what worked and what didn't

See the Implementing section above for what benefits were sought

And the Monitoring section above for what was achieved