

永續特刊

東部區域運輸發展研究中心

東部區域運輸發展研究中心協助輔導花蓮、臺東鄉鎮導入幸福巴士，由於地方政府、公所相關交通背景人才並不多，因此，常對於偏鄉最後一哩路的推廣、規劃及設計有所疑慮，藉由中心的輔導與說明，讓他們清楚中央的政策，並協助鄉鎮提案，成功將部落的第一哩路及最後一哩路與大眾運輸相連。例如右頁案例：



一、秀林鄉：經中心協助進行基礎旅運數據調研蒐集與分析，將原社區巴士路線進行站點與時刻表的重新規劃，再由中心與花蓮縣政府、臺北區監理所、花蓮監理站多次討論，採固定班次時刻搭配預約模式運營幸福巴士。

二、富里鄉：因花蓮客運減班使有往返富里、玉里需求的村民行的權益受到損害，遂本中心輔導民間 NPO 羅山社區協會轉型為個人市區客運業者，並由中華郵政協會以及中華汽車贊助 1 輛八人座小巴，主要服務學童就學、年長者就醫、採買等需求。



◀ 豐濱鄉幸福巴士交通便利行營運



◀ 東部區域運輸中心協助當地政府推動「幸福巴士」，改善偏鄉交通

另外，2017 年曾與交通部運輸研究所共同研究低碳交通運輸的可行性評估，花蓮低碳綠能交通接駁工具建置計畫重點在於提出低碳運輸系統建置計畫，希望以花蓮市為中心沿伸到鄰近鄉鎮，其中以電動公車示範計畫為重點。

2021 年與地方政府合作計畫執行成果

1. 偏鄉公共運輸營運模式之檢討創新

因應交通部於 2020 年修正發布之「汽車運輸業管理規則」、「汽車運輸業審核細則」，讓偏鄉地區的白牌車可以合法化並轉型為個人計程車市區業者，並持續追蹤其成效與協助滾動式檢討，對未來營運及示範成果推廣研議建議。

2. 轉運站設置成效之檢討與策進

2021 年針對轉運站設置成效之檢討與策進，主要完成三個部分工項：(1) 轉運站分析、(2) 轉運站調查、(3) 轉運站相關策略研擬。

3. 臺東縣區域公路公共運輸路線改善計畫

有鑑於東部區域公共運輸網路長年鮮少調整，而居民的生活圈與活動範圍皆有所改變。自上一期計畫針對北花蓮地區的公共運輸路線(305線)進行示範計畫調整後，發現一年後與同期相比運量均顯著提升。2021 年起針對臺東縣境內公共運輸路線進行調整，參考電子票證數據分析結果，並結合在地居民訪談，將搭乘率較低的公車路線提供修改建議。期能打造公路公共運輸與微型公共運輸共融的示範場域，供其他縣市的客運業者與鄉鎮公所經營的幸福巴士參考。

Special Edition: Sustainability

East Center for Transportation Research & Development

An illustration featuring a large, light-brown hand reaching out from the right side of the frame towards a small figure standing on the edge of a brown cliff on the left. The small figure is wearing a blue shirt and dark pants. In the background, there are stylized trees with yellow and green foliage. The overall scene suggests a gesture of support, guidance, or assistance.

The Center has worked with Hualien and Taitung Counties to further expand the bus system into rural areas. The insufficiency of transportation knowledge in regional government made it hard to plan and design routes for public transportation, so the Center helped familiarize local offices with central policies and proposals and successfully incorporated first and last miles into the public transportation network, as shown on the right page.

1. Xiulin Township: The Center first gathered basic transportation data and reorganized the stops and bus schedule of the neighborhood bus based on analysis. The Center met with Hualien County authority and Taipei and Hualien Motor Vehicles Offices to finalize the operation pattern featuring fixed timetable and pickup service.

2. Fuli Township: To lessen the impact of Hualien Bus cutting down services between Fuli and Yuli, the Center engaged and assisted the reformation of Luoshan Community Society into a bus operator in the city area, with one 8-passenger bus donated by the Chinese Postal Association and China-Motor to help travel to and from school/hospital/running errands.

Furthermore, in 2017, the Center looked into the feasibility of low carbon transportation with MOTC's Institute of Transportation. In Hualien, low carbon transportation system construction is key to the deployment of low carbon shuttle service, ideally from Hualien City and extending to satellite towns. The exemplary e-bus project will be the program's highlight.



◀ Happiness Bus service in Fengbin



The East Center for Transportation Research & Development - "The Happiness Bus" improves transportation in remote areas

2021 Collaboration with Local Government: Project Progress

1. Review and innovation of operation model of public transportation in remote areas

As MOTC's 2020 revision of Regulations for Automobile Transportation Operators and Regulations for Review and Approval of Automobile Transportation Operators prescribes, non-business vehicles (white-plate automobiles) are now legal by the definition of the new regulations and can be run in the city area by self-employed taxi driver. The results of this program will be constantly reviewed and improved, providing research and suggestions for future advancement.

2. Review of the effect of the hub and improvement

We have the review and improvement of the construction of the hub in 2021 broken down into three tasks: (1) hub station analysis; (2) hub station investigation; and (3) hub station strategy draw up.

3. Taitung County regional highway public transportation route improvement

In light of the few adjustments to public transportation routes compared to the significant changes of the resident active zone in the east region, the previous improvement project included an exemplary shift of route 305 in the north Hualien area. As results showed one year later, the usage increased significantly than prior to the adjustment. The project continued to alter Taitung County public vehicle routes in 2021. Based on the e-ticket data and resident surveys, alteration suggestions were given to routes with travel numbers. By establishing an example, long-distance bus services and local authorities may benefit from the co-existence of highway transport and public micro-mobility vehicles from the Happiness Bus operation.