

미국 연안해운 물류정책 분석

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요약 : 본 연구는 미국의 다양한 연안해운 정책 중 America's Marine Highway Program(AMHP)을 중심으로 분석하였으며 도출된 시사점으로 바탕으로 우리나라 제주도 물류의 고비용을 초래하는 비효율화를 개선하는데 필요한 연안해운 정책의 방향성을 설정하고 공적 역할의 필요성을 위한 기초자료로 활용하고자 한다.

핵심용어 : America's Marine Highway Program, 제주물류, 연안해운정책, 물류효율화

미국 연안해운 물류 정책

Coastal Freight

- America's Marine Highway Program(AMHP)

Support some of passenger ferry services in line with transporting freight vehicles

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America's Marine Highway Program

- over 25,000 miles of the nation's navigable waterways including rivers, bays, channels, coasts, the Great Lakes, open-ocean routes and the Saint Lawrence Seaway System
- more than 25 marine highway routes

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Needs for domestic marine transportation

- Surges in International Cargo Concentrated at Fewer Ports**
 - Marine highway services offer an economic alternative to convey this cargo to second-tier ports with more efficient hinterland connections.
- High Cost of Increased Landside Congestion**
 - America's waterways are an underutilized national resource with thousands of miles of uncongested capacity.
- Truck Driver Shortages and Regulations**
 - Qualified mariners and crew are readily available to operate vessels that can accommodate the heaviest of containers and trailers without adverse impact to landside infrastructure.
- Disruptive Events Effects on Landside Infrastructure**
 - The marine transportation system offers redundancy benefits to support the continual supply of food, medicines, building materials and other essential goods.
- Improved Environmental Sustainability**
 - Marine highway services have the lowest environmental and social costs per ton-mile of all transport modes.

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AMHP

- In 2018, trucks moved 11.9 billion tons of freight on the U.S. transportation system, or 64 percent of total tonnage.
- It is estimated that by 2045, trucks will carry 34 percent more freight, or 16.4 billion tons of cargo on the nation's transportation network, placing a significant burden on the U.S. Interstate Highway system.

Source: Bureau of Transportation Statistics, Seasonally Adjusted Transportation Data, <https://www.bts.gov/tables/seasonally-adjusted-transportation-data>
 Note: "Truck" and "Water" are tonnage billion. "Rail" is the sum of carloads and intermodal units as reported to BTS by the Association of American Railroads (AAR).

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Goal of AMHP

- relieving landside congestion
- reducing harmful air emissions
- providing new transportation options
- reducing wear and tear on roadways
- increasing the efficiency, safety, reliability, and resiliency of the U.S. transportation system

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AMH Process

Route Designation → Project Designation → Federal Support

- Route Designation**
 - Commercially navigable coastal, inland, and intracoastal waters in the U.S. that are capable of moving freight
 - designated by Secretary of DOT
- Project Designation**
 - either establish new marine highway services or enhance existing services
 - Freight in containers or trailers, roll-on/roll-off cargo
 - U.S. documented vessels, such as barges, container ships, ferries, and roll-on/roll-off ships, registered by the U.S. Coast Guard, owned and crewed by U.S. citizens and built in the U.S.
- Federal Support**
 - DOT and MARAD
 - *Applicant provides at least 20 percent of the project costs from non-federal sources.

*Services carrying bulk cargo are ineligible for the AMH program unless the cargo is stored in containers or packages that are handled individually.

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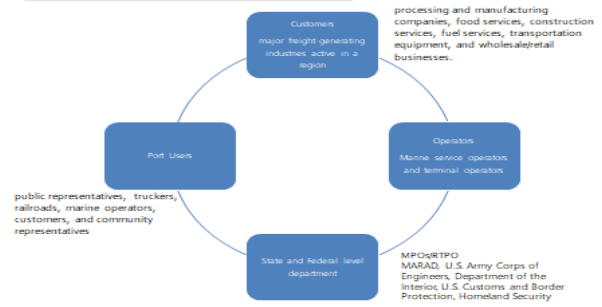
AMH stakeholders

- **Route Sponsors** – are public entities departments of transportation (DOT), metropolitan planning organizations (MPOs), regional transportation planning organizations (RTPOs), port authorities, non-Federal navigation districts and tribal governments.
- **Project Applicant** – A public entity with operations, or administrative areas of responsibility, that are adjacent to or near the relevant route that applies for designation of a marine highway project. Eligible applicants include state governments (including state departments of transportation), metropolitan planning organizations, port authorities and tribal governments.
- **Project Sponsor** - The entity that provides financial resources to support the project.
- **Public-Private Partnership (P3)** - A generic term for a wide variety of financial arrangements whereby governmental entities agree to transfer any risk of or substantial management control over a governmental asset to the private entity in the port sector this is typically in exchange for upfront or ongoing payments though those may only be sufficient to pay for the capital improvement.
- Private entity cannot be an AMH Route or Project Sponsor.

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AMH stakeholders



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Federal Funding Programs for AMH

Govt. Program	Summary Description	Program and Project Award Size	Max. Federal Award	Key Eligibility Requirement Relevant to Port Owners/AMH Sponsors
AMH	Competitive grant for development and expansion of documented vessels or port and landside infrastructure	Variable – Greater than \$1M per year	80% of project costs	Designated AMH Project on designated AMH Route
FDP	Competitive grant to improve facilities within, connecting to, out of, or around coastal seaports, inland river ports and Great Lakes ports	Variable – Greater than \$200M per year, Max. 25% per state, Min. \$50M	80% of project costs	Infrastructure-related projects that improve goods movement through ports and intermodal connections to ports.
BUILD	Competitive grant for enhancement of surface transportation infrastructure at local and regional level	Variable – Yearly, Appropriation \$500M - \$1.5B, Max. 20% per state, Min. \$5M (10% min. for planning grants), Max. \$25M	80% of urban project, 40% of rural project	Planning, design and/or construction of freight transportation projects, port infrastructure investments, and intermodal projects
INTRA	Competitive grant for highway and freight projects of national or regional significance	-\$900M/yr.; Min. \$25M large project, \$5M small project	60% of project cost	Freight project that improves freight movement on Nation's freight network
CMO	Formula funding for states, MPOs and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act	-\$1.5B/yr.; Variable apportionments by state	80% of project cost	Contributes to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution, and included in the relevant TIP or STIP

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Federal Funding Programs for AMH

Govt. Program	Summary Description	Program and Project Award Size	Max. Federal Award	Key Eligibility Requirement Relevant to Port Owners/AMH Sponsors
STBG	Formula funding for states and MPOs for priority transportation projects	-\$11B/yr.; Variable apportionments by state	80% of project cost	Projects that facilitate direct intermodal interchange, transfer, and access of freight into and out of a port terminal
NWIP	Formula funding for states to improve movement of freight on National Highway Freight Network	-\$1.4B/yr.; Max. 20% freight	80% of project cost	Project identified in a freight investment plan included in the state's freight plan
TIFA	Financing assistance for surface transportation projects, intermodal freight transfer facilities, and certain projects inside a port terminal	-\$900M/yr.; Min. \$20M rural project, \$25M ITS projects, \$50M all other projects	49% of project cost (TIFA max.)	Project identified in the relevant TIP or STIP
RRIF	Financing assistance for railroad equipment, facilities and infrastructure	Up to \$35B in loans, up to \$7B for non-Class 1 carrier projects	100%	Loan recipients pay a credit risk premium
Title XI	Financing assistance for construction of vessels built in U.S. shipyards	-\$Max. \$35M/yr.; Varies by project and project's default risk	87.5% of project cost	U.S. business with positive working capital, long-term debt to equity ratio of 2:1 or less, and ability to maintain net worth
CCF	Tax deferred financing for acquisition or construction of U.S.-built and/or U.S. documented vessels	Varies by project	NA	Vessel operated in the U.S., foreign, Great Lakes or noncontiguous domestic trade
PABs	Tax-exempt financing issued through a public conduit for privately developed infrastructure	\$15B in total allocation, \$6B remaining	100%	At least 95 percent of bond proceeds to be expended within a 5-year period

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Public-Private Partnerships(P3)

- Marine highway projects provide natural opportunities for P3s due to their inherent connection between public ports and private shipping companies and barge and tug operators.
- The typical private partner is a domestic carrier with vessels that comply with the Jones Act.

Benefits of P3s

- They provide a mechanism to attract private capital to public projects.
- Private companies may be able to examine full life-cycle cost of investments whereas public agencies are often tied to short term budget cycles.
- Private companies may be able to build and operate transportation facilities more efficiently.
- Many project risks can be transferred to the private sector, providing the public greater certainty.

U.S. flagged carriers

Alaska Marine Lines(Alaska)
Alliance Navigation
American Commercial Barge Line
APL(Guam)
Coastal Transportation(Alaska)
Columbia Group Holdings, LLC
Comso Shipping
Crowley
Rennell Lines
Post Maritime
Tosmarine, LLC
Matson Navigation(Hawaii, Guam, Alaska)
National Shipping of America(Puerto Rico)
PASHA Hawaii Holdings(Hawaii)
Schuyler Line Navigation
SEACOR AMH
Sealift
Speers Towing Co
TOTE
Young Brothers

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Implication

- Efficiency of domestic logistics → **low cost**
- Jones act to protect coastal shipping → **high cost**
- Public-Private Partnership (P3s)
- Public entity leads
- Local public entity responsible for minimum project cost
- Project highly depends on market-based demands

Contradiction

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