

対象国物流分野における開発ニーズ（課題）

- 急激な都市化によりインフラ整備が追いつかず渋滞が常態化し、ヒト・モノの移動が圧迫され医療・経済活動に悪影響
- 自動車の多用を一因とする大気汚染
- 道路や小売店など生活インフラが未成熟な都市郊外（ゲル地区）への物流網

提案製品・技術

- 産業ドローンの離発着及び飛行時における機体姿勢の安定性を高め、重心を最適化する構造設計技術「4D GRAVITY」を組み込んだ量産型物流専用ドローン「AirTruck」
- 陸と空（ドローン）を組み合わせた新しい物流サービス「SkyHub」

調査概要

- 調査期間：2023年6月～2024年2月
- 対象国・地域：モンゴル国ウランバートル市
- 調査概要：
 - モンゴル国の「ドローン配送市場のポテンシャル」を確認すると共に、「提供可能なサービス内容」を検討する為に必要な情報を収集する。
 - サービスの提供に必要な法規制の検討状況および今後の検討方針を確認する。
 - 現地におけるパイロット等のオペレーション人材の今後の技術育成に関する情報を収集する。



ビジネスモデル

- 高い即時性及び配送品質が求められる医療物資を対象としたドローン配送から始める。
- ドローン離発着点から配送地点までは渋滞の影響を受けにくい自転車や電動バイクを使い、人員は即時配送事業者や多くのサービス拠点を持つ現地企業と連携。
- 医療サービスとしての法人顧客は病院やラボ等の医療・研究機関を想定し、個人顧客は当該施設のスタッフへの物資及び食事配送を目指す。

対象国に対し見込まれる成果（開発インパクト）

- 既存の都市物流網に空路を組み込み、医療分野における物資の供給環境の改善、効率性向上を目指す。
- 空路併用により日中の自動車配送の頻度を軽減し渋滞の緩和につなげ、自動車利用者の可処分時間の増加やCo2排出量の軽減を進め都市生活のQOL向上に貢献。
- 都市郊外（ゲル地区）におけるセーフティネットとしての医薬品輸送網の構築

Development issues in the country/sector

- Rapid urbanization has led to the normalization of traffic congestion due to the lack of infrastructure development, which has had a negative impact on medical care and economic activities as the movement of people and goods is squeezed.
- Air pollution caused by the heavy use of automobiles
- Distribution network to suburban areas (ger districts) with immature infrastructure such as roads and retail stores

Products/Technologies of the Company

- 4D GRAVITY, a structural design technology that improves the stability of an industrial drone's posture during takeoff, landing, and flight, and optimizes its center of gravity
- AirTruck, a mass-produced logistics drone incorporating the above technologies
- SkyHub, a new logistics service combining land and air (drones)

Survey Outline

- Survey period: June 2023 - February 2024
- Target Country/Region: Ulaanbaatar, Mongolia
- Survey Summary: (Please fill in the form based on the proposal.)
 - To confirm the "potential of the drone delivery market" in Mongolia, and to collect necessary information to study our "possible service contents".
 - To confirm the current status of the study of laws and regulations necessary for the provision of services, as well as the future study policy.
 - Gather information on the future technical training of local pilots and other operational personnel.



Business Model

- The project will begin with drone delivery of medical supplies, which require a high level of immediacy and delivery quality.
- From the drone takeoff/landing point to the delivery point, bicycles and electric bikes, which are less susceptible to traffic congestion, will be used, and personnel will be coordinated with quick delivery service providers and local companies that have many service bases.
- Corporate customers for medical services are expected to be hospitals, laboratories, and other medical and research institutions, while individual customers are expected to deliver supplies and meals to staff at such facilities.

Expected Social Impact in the Country

- By incorporating air routes into the existing urban logistics network, the project aims to improve the supply environment and efficiency of supplies in the medical field.
- The combined use of air routes will reduce the frequency of car deliveries during the daytime, reduce traffic congestion, increase the amount of available time for car users, and reduce CO2 emissions, contributing to an improved quality of life in urban areas.
- Establishment of a pharmaceutical transportation network as a safety net in the suburbs of the city (Ger district)