(公4-22)

東南アジアと中国の物流・インフラ事情調査

報告書

2023年3月31日

一般社団法人 日本海事検定協会
NIPPON KAIJI KENTEI (THAILAND) LIMITED
NIPPON KAIJI KENTEI MYANMAR LIMITED
NKKK (TAIWAN), LTD.
NIPPON KAIJI KENTEI (VIETNAM) LTD.

I. ラオス国内の物流インフラ調査

(Nippon Kaiji Kentei (Thailand) Limited) (Nippon Kaiji Kentei Myanmar Limited)

II. 輸送環境実態調査報告書

III. 2022 年度ミャンマー国内月間トピックス

- 1. a) 12 foreign economic organizations express concern about Mandatory currency exchange
 - b) Gold exports expected to resume with the start of international flights
 - c) Inviting investment for Edible oil crops Myanmar investment commission
 - d) Approval of Chinese Currency for border trade; coordination meeting held
 - e) Exemption from compulsory exchange for SEZ and other mandatory currency
 - Central Bank changes policy, but still Limited relaxation
 - f) Many Japanese companies remain uneasy
 - g) Import License application after cargo arrival is not allowed, starting on the 20th
- 2. a) Nisshin Electric to connect welding technology in Southeast Asia metal processing in Myanmar
 - b) Trucks in the Myanmar side cross over the border to China with a driving service
 - c) Dividends by military-affiliated companies, no payment to military personnel after political change.

Labeling Orders Concerning Prepackaged Foods

(Myanmar Laws Related to Entering the Myanmar Market)

- 3. a) Trade surplus under military regime, emphasizing "results" of import restrictions
 - b) Myanmar Crisis "Hinders Intra-regional Trade Talks"
 - c) Announcement on the initiation of the services of DICA Online Solution (DOSo)
 - d) Asian countries interested in sending Myanmar nationals legally
- 4. a) Exports to Japan increased by 70% in May,

- the 5th month of positive growth due to strong sales of main products.
- b) Yoma and FMI plan development in southern Tanindari
- c) Some border trade is in danger of being suspended, due to foreign currency restrictions.
- d) Official rates for city money changers, also controlled by the national army
- e) Export of pulses and others, letter of recommendation from industry association required.

[Myanmar Advancement Related Law]

Notification, etc. Related to Compulsory Exchange of Foreign Currency (4) No. 278

- 5. a) Easing of economic policy "after the problem is solved" by national military
 - b) Yangon District approves four foreign investments
 - c) Expansion of saltwater shrimp farming, exports to Japan and other countries
 - Myanmar National Army Reshuffles Cabinet, include Bank of Central Bank Governor, and Redeployment of Key Positions Centered on the Economy
 - e) Exporting Marine Products to Thailand, USD53.04 million in April July
 - f) Exports to Japan remained strong in June, with all major export items performing well.
- 6. a) To support small and medium enterprises through local government = Commander-in-Chief
 - b) Social Security Fund to provide 77.5 billion kyat in a little over 8 years
 - c) Border trade of Muse, it is unaffected by city blockade in China
 - d) Central Bank directs private banks to higher price purchase of seafarers' wages
 - e) JICA loan for farmers, 900 million kyats in six months
 - f) Exports to Japan more than doubled in July. Strong sales of major products, plus 7th month
 - g) Outstanding Growth in Myanmar
- 7. a) Number of Vessels Entering and Leaving Yangon Increases, also Maritime Trade Volume
 - b) Sanitary certification of imported products, electronic application to begin in November.
 - c) Rice exports to Bangladesh to soon exceed 20,000 tons
 - d) Toyota plant operation, delay 18 months due to political upheaval and Corona
 - e) 1,850 domestic food exporters registered with China Customs

- 8. a) Ministry of Commerce introduces new rules for opening motorcycle exhibition halls.
 - b) Muse border, 40 trucks to export watermelons and other products

Directorate of Investment and Company Administration

Announcement for Recommendation of Foreigners' Visa Extension

- Directorate of Investment and Company Administration
 Amendment regarding the announcement issued on September 14, 2022
- 9. a) Laws Related to Advancement Myanmar] Movement of Laws and Regulations in 2022
 - b) JICA Loan, Designates 11 Banks as Intermediary Financial Institutions
- 10. Announcement from DICA for company laws

The Government of the Republic of the Union of Myanmar

Ministry of Investment and Foreign Economic Relations

Directorate of Investment and Company Administration

Directive No. 7 / 2023

(12), Waning of Pyatho 1384 M.E.

(17, January 2023)

- a) The first friendship bridge on the Burma-Thailand border reopens on January 12 for the first time in three years.
- b) 26 insurance companies including foreign companies, operating for business = Regulatory Commission
- c) Some trade items with China can be settled in yuan and dollars.
- d) Exported over 1,217 tons of domestic honey from April to December
- e) Yangon region, investments in 2022 was 53
- f) CMP plants need corporate accounts and monitored foreign currency flows.
- 11. a) Standard Operating Procedures for Bonded Warehouses
 - b) Kyaukphyu SEZ's importance stressed = Commander-in-Chief
 - c) China's Kunming Kyaukphyu railroad to resume development
 - Exports Charge to China up 42% in 2022.
 Natural resources are booming, exceeding pre-political-change levels
 - e) Ministry of Commerce Reminds Imports to Obtain Permits Prior to Arrival
- 12. DICA Announcement to Companies
 - a) Relaxed rules for foreigners entering the country and joining state insurance
 - b) Spend management of budget and strengthening of tax collection are important by Commander-in-Chief.

Conditions for Importing Motorcycles for Sale in Showrooms

(Nippon Kaiji Kentei Myanmar Limited)

(公4-22)

ラオス国内の物流インフラ調査

報告書

2023年3月31日

一般社団法人 日本海事検定協会
NIPPON KAIJI KENTEI (THAILAND) LIMITED
NIPPON KAIJI KENTEI MYANMAR LIMITED

目次

| 目的 | 2 |
|---------------------------------|----|
| ラオスについて | 3 |
| 実走調査 | 5 |
| タナレーンドライポート(Thanaleng Dry Port) | 5 |
| ビエンチャンからボーテンまでの実走調査 | 9 |
| ボーテン経済特区 | 34 |
| 中国ラオス鉄道 | 39 |
| ルート実走時の衝撃値 | 45 |
| 所見 | 48 |

目的

ラオス人民民主共和国(通称ラオス)は、隣国に中国、ベトナム、カンボジア、タイ、ミャンマー5か 国との国境に接する海を有しない東南アジア唯一の内陸国である。

近年、最後のフロンティアと呼ばれたミャンマーのクーデターによる国内情勢の悪化に伴い、日系企業の撤退が相次いでいる。そのような中、新たな企業進出先としてラオスやカンボジアが再度注目され始めている。

タイは東南アジア諸国の中でも GDP が突出しており、先進国の位置付けとなっている。 自動車産業の発達により、裾野産業として経済発展を遂げているが、人件費の上昇も問題として表面化してきた。また洪水による工場浸水の懸念もあり、チャイナプラスワンに追加し、タイプラスワンとして、豊富な労働人口やタイと比べて比較的低い人件費により、労働集約産業の水平分業の役割を担うカンボジアや、ラオスへとシフトする兆しが見られる。結果、ラオスはタイとの貿易額も拡大傾向にある。

また、中国の「一帯一路」政策による資本が続々と入ってきており、2020年に首都ビエンチャンとバンビエンを結ぶ高速道路が開通し、2021年 12月 3日はラオスの首都ビエンチャンと中国雲南省の昆明を結ぶ 1.035キロの中国ラオス鉄道が開通した。

本調査の目的は、このようなラオスの発展が望まれる中、ラオス国内の物流インフラの実態を調査するため、今回はタイ国境の首都ビエンチャンから中国国境のボーテンまでの道路状況を確認し、実際の輸送実態や近年開通した中国ラオス鉄道を実地調査したものである。

ラオスについて



ラオスとその他諸国の位置関係(出典: Google Maps)

正式名称はラオス人民民主共和国であり、首都はビエンチャン。

ラオス経済は 1997 年のアジア経済危機の影響を受け一時低迷するが、2000 年代に入り順調に経済発展を遂げてきた。2006 年以降は約 7%前後の GDP 成長率を続け、ラオスは東南アジアで比較的、安定した高い経済成長を遂げている国の一つになっている。

(コロナの影響により 2019 年、2020 年の成長率は低迷したが、それ以降は回復してきている)

そのような安定した経済成長に加え、地域の経済統合が進んだことを受けて、中国、ベトナム、カンボジア、タイ、ミャンマー5か国と国境を接し、東南アジア大陸部の中心に位置するラオスの地理的条件が有利と考えられるようになった。

いわゆる「チャイナプラスワン」や「タイプラスワン」と呼ばれる形態で一部生産工程の移転先として注目を集めている。例えば中国やタイで生産を行っている企業が分業体制を確立するなかで、陸続きであるラオスは部品の調達先として、また一部生産工程の移転先として非常に魅力的である。

しかしながら、内陸国(Land-Locked)であるため、輸送コストの問題など不利な点もあるものの、 ラオスは東南アジア大陸部各国を結ぶ連結国(Land-Linked)へシフトしようとしている。

ラオスの経済成長を支えている主たる産業は、鉱物資源、発電事業、農業プランテーション開発等である。ラオスには金、銅、ボーキサイトなど、豊富な鉱物資源があり、タイと国境沿いにはメコン川が流れている。政府はその支流での水力発電所建設を進め、電力をタイなど近隣諸国に輸出している。

労働人口の約70%が従事する農業も重要な産業であり、ラオスでは天然ゴム、キャッサバ、コーヒー、トウモロコシなど、さまざまな野菜や果樹、商品作物が生産され輸出されている。コメの生産量も多くもともとラオスの人々は自給自足的な生産が中心となっている。

そして天然資源開発を支えているのが外国企業による投資であり、中国、タイ、ベトナムの 3 か国は常に上位 3 か国である。近年は日系企業の投資も増えており、これまではラオスは日系企業にとって魅力的な投資先では無かったがラオスの地理的条件が優位となり、またタイやベトナムなど周辺国の賃金上昇が如実に表れており、日系企業は安価で若い労働力を求めラオスに注目するようになった。2019年末現在の進出日系企業は 160 社を超えているという。

政府は順調な経済発展を背景に、2016年の第 10 回党大会にて「ビジョン 2030」という新たな国家目標を提示した。これは、2030年までに年間平均所得を現在の 4 倍(1 人あたり約 8000ドル)にし、上位中所得国入りを果たすという目標である。目標達成のためにはこれまで以上に経済開発を進める必要がある。順調に経済成長を進めば、ラオスは 2024年に国連の後発開発途上国リストから外れる予定である。

ラオスの一般情報(外務省基礎データによる)

- 1. 面積 24 万平方キロメートル
- 2. 人口 約733.8万人(2021年、ラオス統計局)
- **3. 首都** 首都ビエンチャン
- 4. 民族 ラオ族(全人口の約半数以上)を含む計 50 民族
- **5. 言語** ラオス語
- **6. 宗教** 仏教
- 7. **略史** 1353 年、ランサーン王国として統一。1899 年、フランスのインドシナ連邦に編入される。1949 年、仏連合の枠内での独立。1953 年 10 月 22 日、仏・ラオス条約により 完全独立。その後内戦が繰返されたが、1973 年 2 月「ラオスにおける平和の回復及び 民族和解に関する協定」が成立。インドシナ情勢急変に伴って、1975 年 12 月、ラオス人民民主共和国成立。
- 8. 産業 サービス業 (GDP の約 38%)、農業 (約 16%)、工業 (約 34%)、製品及び輸入に係る税 (約 12%)。(2021 年、ラオス統計局)
- 9. GDP (名目) 184 兆 982 億キープ (約 190 億米ドル) (2021 年、ラオス統計局)
- **10. 一人当たり GDP** 2.595 ドル(2021 年、ラオス統計局)
- **11. GDP 成長率** 3.5% (2021 年、ラオス統計局)
- 12. 消費者物価上昇率 3.75% (2021 年、ラオス統計局)
- 13. 失業率 9.4% (2017 年、ラオス計画投資省)
- 14. 貿易 (1) 輸出 約 77.0 億ドル(2021 年、ラオス統計局)

(2) 輸入 約58.9 億ドル (2021 年、ラオス統計局)

15. 主要貿易品目 (1) 輸出 電力、金、金鉱石、紙・パルプ (2021 年ラオス商工業省)

(2) 輸入 車両、機械類、ディーゼル (2021年ラオス商工業省)

16. 主要な貿易相手国 タイ、中国、ベトナム他(2021年ラオス商工業省)

17. 通貨 キープ (Kip)

18. 為替レート 1 ドル=約 17,200 キープ (2023 年 1 月、ラオス中央銀行)

実走調査

本調査では、ラオス国内の物流インフラ状況について出来る限り現地の状況を把握するため、まずは 空路によりラオスに入国し、タナレーン・ドライポートの視察を行い、ビエンチャンから乗用車により 実走しながら中国国境付近のボーテン経済特区へ向かうこととした。その後、2021 年 12 月に開通した 中国ラオス鉄道に乗車しビエンチャンへ戻る。

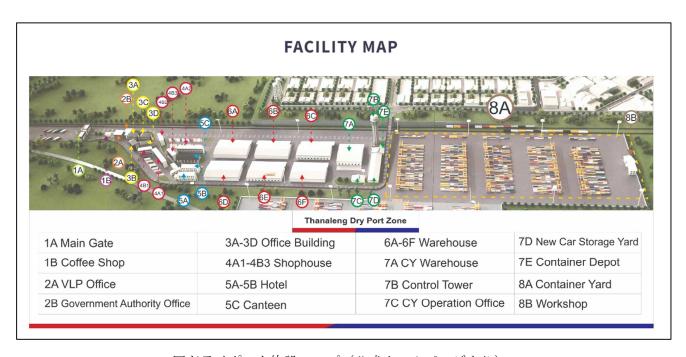
タナレーンドライポート(Thanaleng Dry Port)

タイとの国境、メコン川にかかるタイ・ラオス第一友好橋から約 3.5 キロメートルの距離に位置しているドライポートである。同ドライポートはラオスの Class 1 Dryport に指定されており、ラオスを「Locked Land」から「Linked Land」に変えることを目的とした、国家物流戦略の主力プロジェクトであるビエンチャン・ロジスティクスパークの一部となっている。また、UNESCAP (国連アジア太平洋経済社会委員会)のドライポートに関する政府間協定で承認された「国際的に重要な 9 つのドライポート」のうちの 1 つである。

タイ国鉄や中国ラオス鉄道が接続できるようになっており、コンテナの積み替え施設が 2022 年に完成しており、また冷蔵倉庫や混載サービス (CFS) を含む道路 / 鉄道の複合一貫輸送ターミナルとなっている。



タナレーンドライポートの位置 (Google Maps より作成)



同ドライポート施設マップ (公式ホームページより)

2023年3月1日10時頃に同ドライポートに赴き、下記の通り現状を確認した。



セキュリティゲート



敷地内の道路はトラックやコンテナトレーラーが行 き来していた



タナレーン・ドライポート駅 (旅客用)



メインゲートへ続く道、フェンスの向こうはタイか ら入国してきたトラックが並んでいる



メインゲート(上記 Facility Map の 1 A)



ヴィエンチャン・ロジスティクスパークのオフィス



タナレーン・ドライポートのオフィス



テナント用の建屋 企業はほぼ入っていない



テナント用の建屋 企業はほぼ入っていない



テナントに入っている企業は数社であった



貨物地区へのゲート、上記 Map の 5 C の辺り (許可が取れなかったため、入構できず)



__ コンテナ及びトレーラー





奥にはコンテナ及び上屋が見える

タイから繋がっている輸送車両の専用道路

ビエンチャンからボーテンまでの実走調査

タナレーン・ドライポートの視察後、12 時 30 分頃にボーデンまでの実走調査を開始した。実走ルートは下記の図のとおりであり、約 630 km を 2 日間かけて走行した。

1日目はルアンバパーンまでの約332 km、2日目はルアンバパーンからボーテンまでの約290 km を 走行し、写真撮影を行いながら現状を確認した内容を下記の通り報告する。



実走ルートの概要

【第1日目】

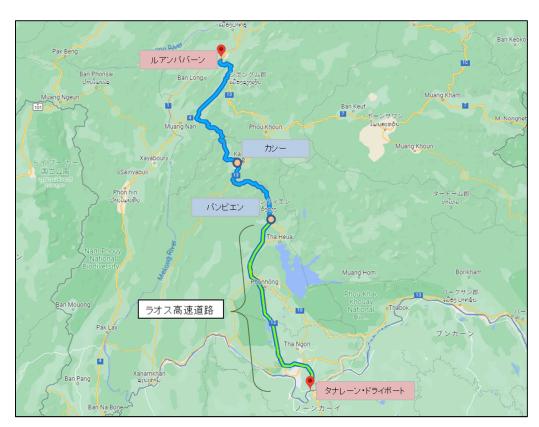
2023年3月1日 12時30分 タナレーン・ドライポート出発

16 時 45 分 バンビエン

18時15分 カシー

20 時 40 分 ルアンパバーン到着

タナレーン・ドライポートを出発し、ルアンバパーンへ向かった。ビエンチャンからバンビエンまでは中国の「一帯一路」構想の一部であるラオス高速道路を活用することとした。高速道路はバンビエンまで開通しているため、高速道路を降りた後は一般道を走行し、カシー市街地を経由しルアンバパーンへ向かう一般的なルートである。



タナレーン・ドライポートからルアンバパーンまでの実走ルート

ラオス高速道路について

2020 年 12 月 20 日に開通した、ラオス発の高速道路の開通はラオスで初の高速道路である。ラオスの首都ビエンチャンと同国中部のバンビエンをつなぐ高速道路(約 110 キロ)となる。

中国の雲南建設投資グループ(以下、雲南建設)とラオス政府の合弁事業として2018年末から建設が進められていた。

ビエンチャンとバンビエン間の往来は、険しい山道が続き道路の整備不良もあり、自動車で片道約3時間を要していたが、今回の高速道路開通によって1時間30分余りに短縮されるという。片側2車線の高速道路は中国の高速道路建設標準規格に基づき、時速80 \sim 100キロに制限速度を設定している。今後はサービスエリアや休憩所なども整備するとのことだが、今回の調査時点では見受けられなかった。

今回の開通区間は、総延長が約 440 キロの中国ラオス高速道路の第 1 セクションとして位置付けられている。今後は中国と国境を接するボーテンまで延伸する計画であり、中国はこの高速道路建設を「一帯一路」政策の一環としている。



ドライポート近隣の道路の状態 未舗装の道路が多い



ドライポート近隣のコンテナ保管ヤード



保管されているコンテナはほとんどが中国鉄路 (CHINA RAILWAY) のコンテナであった



同左



ドライポート近隣の走路の舗装状況



ビエンチャンの市街地に近づくにつれて舗装され た道路が増えていた



ビエンチャン市街地の道路



同左



高速道路入口(中老高速公路と表示されている)



ビエンチャンの料金所



ビエンチャンの料金所



チケットの発行は比較的スムーズであった



高速道路の舗装状況



同左、速度記録用のカメラが設置されていた 機能しているかは不明



パーキングエリアのサインボード



実際はまだ建設前であった



ポーンホーンのサービスエリア



同左、パーキングと建屋のみ出来上がっていた



高速道路内のトンネル 照明設備は無かった



高速道路 バンビエン地区



バンビエンの料金所



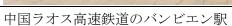
同左 料金の支払いは現金で行われ、ETCのような設備は見受けられなかった



バンビエン市内の道路

同左







チケットオフィス



バンビエンから 13 号道路にてルアンバパーンへ向 かう



同左 バンビエン近郊の道路



ルアンパバーン方面に向かうトラック カバーの記載文字から中国へ向かうと思われる



徐々に山岳地帯へ入っていく



中国ラオス高速鉄道の線路



多くのトラックが行き交っていた



建機を積んだトレーラーと国内輸送用のトラック



ガソリンスタンドには輸送トラックの他に地元住 民のバイクも見受けられた



バンビエンからカシーに入る県境



中国から輸入されてきたと思われるドラム缶貨物



タイ資本のガソリンスタンド



レギュラー 21,010 キープ (約 165 円)



カシー市街地



中国ラオス鉄道の高架



中国ラオス鉄道のカシー駅



中国ラオス鉄道の貨物列車が通過



13号道路をカシーから左折し、山道へ入っていく



ルアンバパーンや中国方面へは近道のため多くの トラックが行き交っていた



路面は比較的舗装されている



集落あるガソリンスタンド



山岳地域に入っていくに つれて、徐々に舗装状況が悪くなる



日も暮れているがトラックの交通量は比較的多い 舗装状況が悪く、砂埃が舞う



上り坂で徐々に渋滞が発生してきた



路面が柔らかい砂であるため、タイヤがスリップし立ち往生しているトラック ショベルカーにけん引されている



路面状況が悪く、大きく傾くトラック



トラックの砂ぼこりで前方の視界不良



少し過ぎると舗装状況が良くなってきたが、ここま で街灯など照明設備は一切無かった



同左



下り坂となりスピードを上げるトラックが散見さ れた



山道から右折し4号道路に入る



4号道路に入ると集落が見られ、休憩するトラック が多く停車していた



同左、集落は開いている店舗が散見された



4号道路から13号道路に入る道路



ルアンバパーンが近い為か、乗用車が見られるよう になった



ルアンバパーンに到着 市街地の様子



同左

【第2日目】

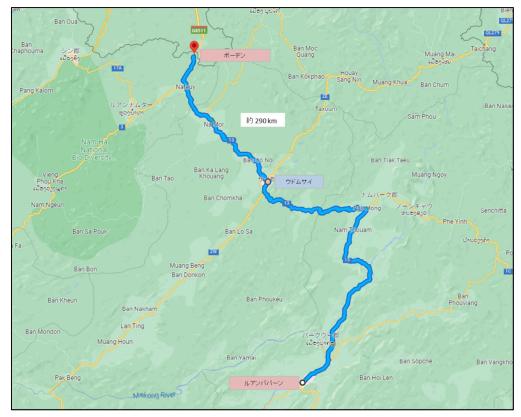
2023年3月2日 08時30分 ルアンバパーン出発

09 時 10 分 ルアンバパーン駅

14 時 10 分 ウドムサイ

17時40分 ボーテン到着

ルアンバパーンを出発し、ひたすら 13 号道路にて北上するルートである。ボーテンへ向かうにはこのルートしかないという。ルアンバパーンを出てからは少しメコン川沿いを進み、途中からその支流であるナムオー川を上るように山道を通り、ウドムサイ市街地を経由しさらに山岳地帯のなか、ボーテンを目指す。



ルアンバパーンからボーテンまでの実走ルート



ルアンバパーン市街地 朝の様子

同左 出勤する乗用車や露店などでメインロード は非常に混んでいる



市街地は架線など上空障害物も多い



13 号道路に沿って徐々に山道へ入っていく



中国ラオス鉄道の高架



同左



輸送トラックとのすれ違い 積み荷はラオスビールであった。



舗装されているように見えるが路面の状態は良く ない



山岳民族 (モン族) の集落が点々としている



メコン川の支流に架かる橋



ボーテン方面へ向かうトラック



工事用建機の輸送車両も比較的多く見られた



ボーテンへ向かうトラック



積み荷はラオス産のスイカ パッケージの記載は中国語だったため、ボーテンか ら中国へ輸出されるものと思われる



ナムオー川の水力発電所 (Nam Ou Hydropower Project)



同左



ナムオー川沿いに 13 号道路を進む



狭い道幅でも躊躇なくトラックが行き交う



スイカを積んでいるトラックが多かった パッケージは中国語表記である



家畜を運んでいるトラックも散見した (上記写真は養豚)



集落が多い為か、路面の舗装状態は良好



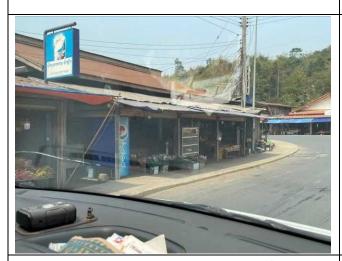
いたるところに橋がかかっており、ほとんどが 40T 制限であった



バイク所有率が高いため、ガソリンスタンドは多い



同左



ウドムサイ方面へ左折 変わらず 13 号道路を進む



集落の中もトラックは通っている ウィング車はあまり見かけなかった



ウドムサイ方面へ向かうトラック



積み荷はスイカ



スイカを積んでいるトラックが増えた



急カーブが多くなり、事故防止のコンクリートブロックが設置されている



急カーブでのトラックの行き交い



土砂崩れで車線が半分ふさがれていた (モン族の子供たちが遊んでいる)



ウドムサイまで 半分のところで休憩



ルアンバパーンからここまでの路面はいたって普 通である。中央線もひかれている



路面の損傷箇所



下り坂の急カーブ コンクリートブロックが設置 されている



舗装工事も適宜行われている模様



トラブルのためか、路肩で貨物の積み替えが行われ ていた



ルアンバパーンとウドムサイの県境



中国ラオス鉄道の架橋



ウドムサイ市街地



同左



中国ラオス鉄道のウドムサイ駅



利用者は多く、ちょうど普通列車が到着した



ナンバープレートは中国(左)とラオス(右)が混 在する



ウドムサイ市街地を抜けボーテンへ向かう



トラック輸送会社のヤード



同左 このようなトラックが多く見受けられる (貨物を積んだ後に上からカバーをかけている)



ひたすら山道を進む



リーファーコンテナを輸送するトレーラー



家畜を輸送するトラック (牛)



リーファーコンテナが多くなってきた 但しリーファーユニットの電源は入っていない



中国ラオス鉄道の線路架橋



左手の陸橋は線路、奥はナートン駅



ラオスビールを運ぶトラック



山道と急カーブが続く



ボーテンが近くなってきた



中国鉄道の貨物列車



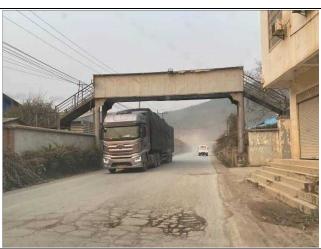
ここからボーテンへ向かう一本道となる



バナナを積載したトラック パッケージの表記は中国語



コンテナには「Thailand-Laos-China」と記載 されている



ボーテンへ向かう道路 舗装状態はあまりよくない



建設中のゲート 将来的にボーテン地区へ入構のチェックポイント になるという



ボーテン地区開発のための工事車両



ボーテンに近づくにつれ輸送車両が顕著に多くなる



ボーテン地区のゲート 奥にチェックポイントが見える



ボーテン地区へのチェックポイント



--特に厳しい検査はなく、通過できた

ボーテン経済特区

ボーテンはラオスのルアンナムター県にある中国とラオスの国境の待ちである。中国雲南モーハンと接している。ボーテンはラオスの都市であるが、住民の共通言語はほぼ中国語であり、通貨も中国人民元が流通している。

現在も中国資本による開発は進んでおり、特に商業地区の高層ビル(ホテルやマンション、その他娯 楽施設)の発展は目を見張るものがある。



ボーテン経済特区の概要 (Google Maps と撮影写真にて筆者作成)





未舗装の敷地に多くのコンテナが保管されている



空コンテナを運ぶリーチスタッカー



入り口には台貫所が設置されている



中国へ向かうスイカ



上屋ではラオス—中国間での貨物の積み替えが行 われている



ラオスへ入国するトラック チェックポイントでの審査を終え、シールをした後 ラオスへ入る



弊社職員によるインタビュー



チェックポイントから中国国境へ向かう道路



チェックポイントから中国国境へ向かう道路 中国から入国してきたトラック



中国へ向かうトラック



中国から入国してきた輸送車両の国境検問所



同左 中国から入国してきたトラック、トレーラー



国境ゲート、向こう側は中国、雲南省 大規模な物流施設が建設中



検問所待ちのトラック



中国から入国したトラック



積み荷はタピオカ



リーファーコンテナはユニットの電源は入ってい ない



タイーラオス―中国間を行き来している 積載貨物は野菜や果物が多いという



書類審査を終えたドライバー



検問を通過するトレーラー



弊社スタッフによるインタビュー



一般用入国検問所(旅行者や乗用車など)



国境ゲート (一般旅客用及び中国へ向かう輸送車両用)



記念石碑



ラオスから中国へ向かうトレーラー

同左





同上

貨物地区から国境に向かうトレーラー

中国ラオス鉄道

中国ラオス鉄道は、東南アジア本土における中国の一帯一路構想の主力プロジェクトである昆明・シンガポール間鉄道に対する一部である。アジア鉄道のビジョンは完全には実現されていないが、昆明からシンガポールまでの3つのルートで構成されており、ミャンマーとタイを通る西ルート、ラオスとタイを通る中央ルート、ベトナム、カンボジア、タイを通る東ルートである。3路線すべてがバンコクで接続され、マレーシアとシンガポールを通って南に延伸することになるという。



旅客用高速列車

中国からベトナム、ミャンマーを経由するプロジェクトは、環境リスクや地政学的な緊張のため保留 されたり、交渉や実施に時間がかかっており、タイ部門の合意は最近締結されたばかりであるため、ラ オス路線が重要である。

中国ラオス鉄道は、ラオス北部の国境の町ボーテンと首都ビエンチャンを、標準軌(レール内側の間隔が 1,435mm)で 約 414 km を結んでいる。最高時速は 160 キロメートル(旅客用)と時速 120 キロメートル(貨物用)となっており、ビエンチャンからボーテンまでは約 4 時間、昆明までは約 10 時間で到着する。



中国ラオス鉄道 ボーテン駅



中国からの旅行客で賑わっていた



入構前の X 線による手荷物検査



駅構内の待合場所



プラットホームへ出る際にもチケットの確認



特急列車が到着(12時 15分出発)



ボーテン駅内の貨物列車の路線



同左



駅敷地内には多数の貨物列車が停車中



40 フィートコンテナの貨物列車



ウドムサイ駅周辺のコンテナターミナル (13 時 00 分頃)



同左



ウドムサイ駅周辺のコンテナターミナル



同左



一等席の座席



同左 一等車両の様子 どの車両も満席でほとんどが中国人と思われる



車内販売も充実していた



一等車両のトイレは清潔感があった



ルアンバパーン駅に到着



ルアンバパーン駅敷地内の貨物列車(13時45分頃)



一般的な 20 フィートコンテナと変わりなかった



車窓から見える 13 号道路(実走調査で通った道路)



ビエンチャン駅に到着 (15 時 45 分頃)



ビエンチャン駅で下車



出口へ向かう



駅から出る際にもチケットの確認



中国ラオス鉄道 ビエンチャン駅



駅出口は旅行客が溢れていた



駅の周辺は送迎用の車両で混雑していた

同左





ビエンチャン市内の様子



夕方は通勤ラッシュのため、渋滞が多い

ルート実走時の衝撃値

タナレーン・ドライポートからボーテンまで実走調査時に使用した乗用車に振動測定器(以下、衝撃計) を搭載して、走行中の衝撃の計測を実施し、各ルートにおける計測結果は以下のとおりであった。



実走調査で使用した乗用車

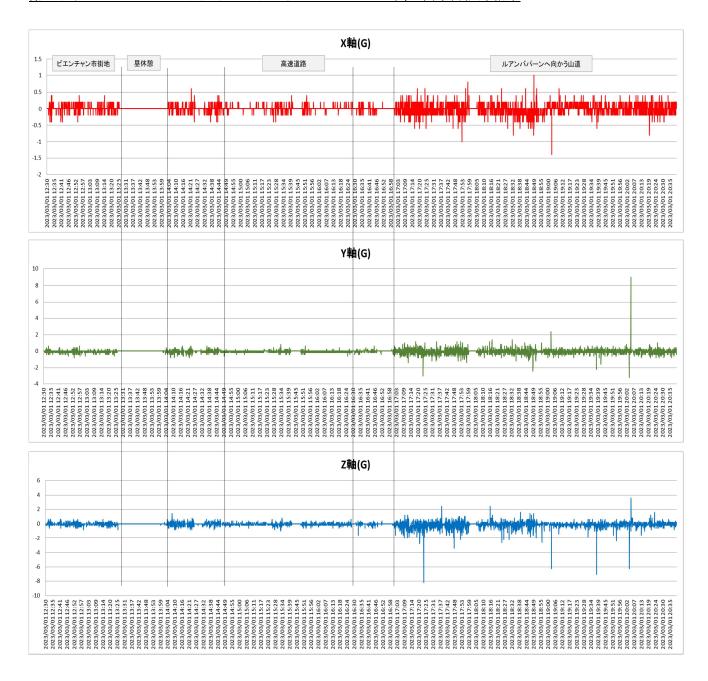


荷台に衝撃計を設置



スリック社製 GMEN GL20

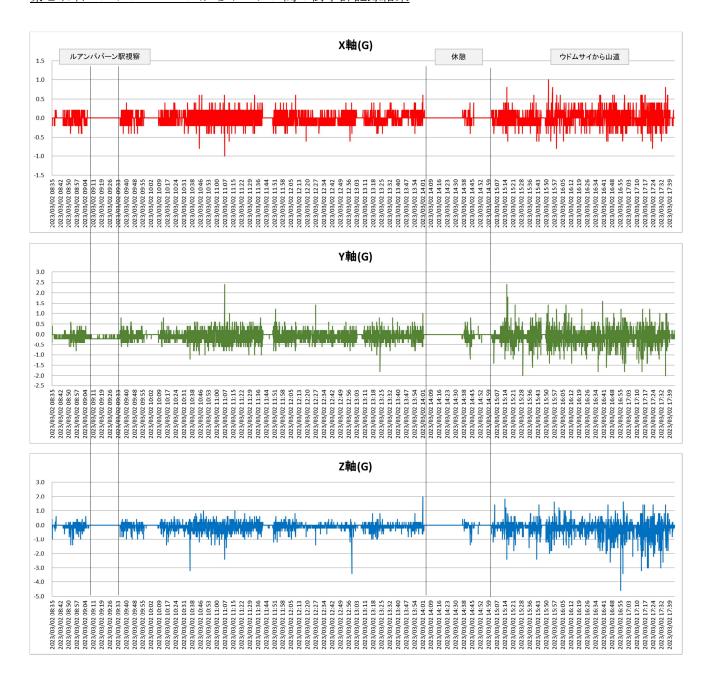
第1日目 タナレーン・ドライポートからルアンパバーン間の衝撃計記録結果



最大加速度值

| X軸 | + 1.0 G / -1.4 G | |
|----|------------------|--|
| Y軸 | + 9.0 G / -3.2 G | |
| Z軸 | + 3.6 G / -8.2 G | |

第2日目 ルアンパバーンからボーテン間の衝撃計記録結果



最大加速度值

| X軸 | + 1.0 G / -1.0 G |
|----|------------------|
| Y軸 | + 2.4 G / -2.0 G |
| Z軸 | + 2.0 G / -4.6 G |

備考) 最大+9.0 G や-8.2 G が記録されているがこれらは、時間的な制約もあるなかでやむなくラフな 運転となってしまったことに起因すると考えられる。(実際に 9G の加速度というのは、戦闘機の 急旋回並みの G であるという)

所見

本調査はラオス国内の物流インフラの実態調査の一部として、首都ビエンチャンから中国国境都市ボーテンまでの実走調査を実施した。ビエンチャン近郊や各市街地内及び高速道路などは比較的整備が行き届いており、舗装状態も悪くない印象を受けた。しかしながら、各市街地を結ぶ、郊外の道路や険しい山道などではまだまだ未舗装の箇所が多く、衝撃計に記録からもわかるように運転手に対する精神的負担や貨物が被るダメージにつながる衝撃、振動は大いに懸念されるものである。

実走調査を実施したことで、どのような貨物がどのように輸送されているか、実際に使用されている ルートとの検証を垣間見ることができ、中国ラオス鉄道が開通したことでの輸送モードのシフトなどメ リットが感じられる結果となった。

ボーテンからラオスに入国し、タイのチェンライ、チェンマイへの輸送トラックも多く見られた。 内陸国であるラオスを経由する物流が今後増加することは確実であり、近隣 5 か国を繋ぐ「Linked Land」として東南アジアの主要な一国となりうるポテンシャルを感じた。

タナレーン・ドライポートやボーテン経済特区のように、ラオスには現在開発が進められている物流 施設や工業団地、スマートシティなどが多々ある。

今後のラオスの発展、インフラ整備に期待するとともにその他のラオス国内の物流インフラ調査を継続して実施していきたい。

以上

輸送環境実態調査報告書

(一社) 日本海事検定協会 検査第一サービスセンター

目次

| 目的 | 3 |
|----------------------|----|
| 調査概要 | 3 |
| 調査実施時期 | 3 |
| 使用機器 | 3 |
| 使用機器の検証実験 | 5 |
| 試験概要 | 6 |
| 試験機器 | 6 |
| 試験体 | 7 |
| 試験開始の様子 | 9 |
| 試験結果及び考察 | 10 |
| タイ国(バンコク)への輸送実態調査 | 11 |
| 対象貨物の選定 | 11 |
| 輸送の記録 | 13 |
| バンコク向け貨物の輸送温度環境の実態 | 13 |
| バンコク向け貨物の輸送実態に関しての所見 | 22 |
| 台湾(台北)への輸送実態調査 | 22 |
| 対象貨物の選定 | 22 |
| 輸送の記録 | 23 |
| 台北向け貨物の輸送温度環境の実態 | 23 |

| | 台北向け貨物の輸送実態に関しての所見 | .28 |
|---|---------------------------------|------|
| ~ | ^ミ トナム(ホーチミン)への輸送実態調査 | .29 |
| | 対象貨物の選定 | .29 |
| | 輸送の記録 | .31 |
| | ホーチミン向け貨物の輸送温度環境の実態 | .31 |
| | ホーチミン向け貨物の輸送実態に関しての所見 | .40 |
| ~ | ドトナム(ハノイ経由ハイフォン)への輸送実態調査 | .40 |
| | 対象貨物の選定 | .40 |
| | 輸送の記録 | .42 |
| | ハノイ経由ハイフォン向け貨物の輸送温度環境の実態 | . 43 |
| | ハノイ経由ハイフォン向け貨物の輸送実態に関しての所見 | . 52 |

目的

本調査は、東南アジア諸国の物流インフラ調査の一環として、日本から東南アジア諸国への物流実態を調査し報告することを目的とする。

調査概要

東南アジア諸国の物流実態調査として、今回は冷蔵・冷凍貨物の物流(コールドチェーン)を対象とした。

調査の第一段階として、日本からタイ国 (バンコク) 及び台湾(台北) への航空輸送による温度環境の実態調査を実施した。具体的には、本邦における冷蔵貨物の運送業者上屋搬入から到着地での航空上屋搬出までの温度環境を調査対象とした。

なお、発送する貨物は、温度管理を必要とし、且つ比較的安価であり、目的地での受け渡しが多少なりともスムーズと考えられる世界的にも馴染みのあるチョコレート菓子(キットカット)を選定した。

第二段階は、上記の結果を踏まえ、ベトナム(ホーチミン及びハノイ経由ハイフォン) への航空輸送による調査を実施した。

調査実施時期

調査時期として、第一段階のバンコク及び台北への発送は、物流量が増大する年末の時期を調査時期として選定し、第二段階のホーチミン及びハノイへの発送は春節の時期とした。

使用機器

本調査は、コールドチェーンの温度環境調査が目的であるため、発送貨物に温度ロガーを設置し、輸送中の温度データを記録する。

今般、必要な情報は温度情報のみであることから、凸版印刷株式会社の開発した温度ロガーラベル(TP-3L454-1)を調査機器として採用した。

当該温度ロガーラベルは貼付された荷物の表面温度の変化を任意のタイミングで自動的に記録し続けることができ、スマートフォンに搭載された「NFC」を用いた通信に対応しており、経由地や最終目的地などで、専用アプリケーションを使って読み取り、出荷からその時点までの「ログデータ(日時と温度などの記録)」を時系列的に追跡・管理できるものである。

また本温度ロガーラベルは使い切り型のバッテリーを搭載したシンプルな構造を採用し、 使用後に回収する必要がない「ワンウェイ」利用可能で他機種と比べて低価格な温度ロガ ーである。

当該温度ロガーラベルの製品概要は下記の通り。

■品名

温度ロガーラベル

■型式

TP-3L454-1

■通信規格

HF(NFC): ISO/IEC 14443 TypeANFC Type-2 規格

UHF: ISO/IEC 18000-63 EPCglobalC1G2 V1.2.0

■メモリ容量

UID:7bit(シリアル番号)

総メモリ:160Kbit(温度記録可能回数:最大4,864回)

温度記録時間目安:記録間隔10分の場合33日、30分の場合101日

■形状

タグ寸法: W85.5 ×H54.0mm

■使用温度範囲

-35~+50°C

■推奨保管環境

0~+10°C

■推奨貼付環境

+25°C/30~60%RH(結露なきこと)

■IC 内蔵温度センサ測定精度(IC 仕様に準じる)

 ± 0.5 °C

■IC 内部時計精度

代表值±2%

■電池寿命目安

製品出荷後半年(高温環境下では電池の放電による劣化が進みます)

■材質

ラベル基材:PPフィルム

■粘着材

強粘着材



使用する温度ロガーラベル

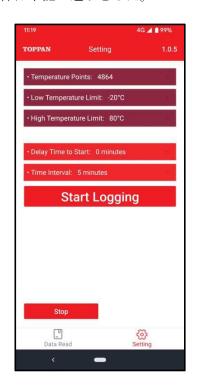
なお、今般の輸送における温度ロガーラベルの設定条件は下記の通りとした。

Temperature Points: 4864Low Temperature Limit: -20° C

High Temperature Limit: 80° C

Delay Time to Start: 0 minutes

Time Interval: 5 minutes



使用機器の検証実験

当該温度ロガーラベルの使用に先立ち、当会理化学分析センターにて下記の通り当該温度ロガーラベルの検証実験を実施した。

試験概要

当会理化学分析センター所有の恒温器を使用し、他の温度ロガーや環境記録計の計測結果と比較することで冷凍・冷蔵・常温・高温のそれぞれの温度帯における当該温度ロガーラベルの計測精度及び追従性を確認する。なお、温度の記録間隔は10分で統一することとした。

試験機器

[恒温器]

製造者: エスペック社

型式: LU-113 温度設定範囲(°C): -20~+85

庫内寸法(mm): 500×390×600

庫内容量: 約 105L

方式: 平衡調温方式(BTC システム)

電源: AC100V 1 φ 50/60Hz

最大消費電流: 9A

温度分布: ±2.0℃

内槽:ステンレス(SUS304)冷凍機:空冷式全密閉型圧縮機

その他: プログラム設定可能

[温度プログラム条件]

① 冷凍帯: -18℃を 36 時間継続

② 6時間かけて5℃に昇温

③ 冷蔵帯:5℃を36時間継続

④ 6時間かけて35℃に昇温

⑤ 常温帯:35℃を36時間継続

⑥ 6時間かけて60℃に昇温

⑦ 高温帯:60℃を36時間継続



なお、冷凍帯・冷蔵帯はそれぞれ実輸送で使用される温度帯の代表値を選定し、常温帯は 東南アジアの外気温を想定とした。また、高温帯は当該温度ロガーラベルの使用範囲外で はあるが、ドライコンテナでの国際輸送時、コンテナ内は 70℃近くになることもあり得る ため、試験的に検証プログラムの中に取り入れた。

試験体

(1) 凸版社製温度ロガーラベル

【仕様】

上述の通り

【設定条件】

Temperature Points: 4864Low Temperature Limit: -40° C High Temperature Limit: 80° C

Delay Time to Start: 0 minutes

Time Interval: 10 minutes

(2) G-MEN

【仕様】

型式 G-MEN DR10

測定項目 3軸加速度、温湿度

加速度センサ 静的加速度:20G(±10%)

静的加速度:10G(±10%)

測定分解能 0.2G 0.1G 応答周波数 0Hz~100Hz

温度範囲 $0\sim50^{\circ}\mathbb{C}$ ($\pm3^{\circ}\mathbb{C}$) 湿度範囲 $30\sim90^{\circ}$ ($\pm10^{\circ}\mathbb{C}$)

サンプリング周期 1msec・2msec・5msec・10msec・20msecの5通り

記録間隔 1 秒・5・10・15・20・30・1 分・2・3・4・5・10・15・20・

30の15通りから選択

記録容量 65,500 データ

動作表示 液晶表示

記録保持 不揮発性メモリ

通信方式 USB (miniB) 2.0 準拠

電源 単 3 アルカリ乾電池 (LR6) ×2 本

電池寿命 約 45 日間 (1msec サンプリング周期時、測定環境、電池性能

による)

仕様温湿度範囲 0~50°C 70%RH 以下(結露無きこと)

【設定条件】

サンプリング周期 0.01sec 記録間隔: 10分



(3) USB 温湿度データロガー

【仕様】

型式 MJ-UDL-22

| 型式 | | MJ-UDL-22 | | | |
|-----------------|--------------------------------|-----------------------------------|-------------------------|--|--|
| 計測機能 | | 温度 | 相対湿度 | | |
| 測定範囲 | | −20~70°C | 5~95%RH(結露なき事) | | |
| 測定精度 | 通常 | ±0.5℃ (10~60℃において) | ±3.0%RH (20~80%RH におい | | |
| | | | て) | | |
| | 最大 | ±1.0℃ | $\pm 5.0\% \mathrm{RH}$ | | |
| 分解能 | | 0.1℃ | 0.1%RH | | |
| 長期ドリフ | ト性 | 無視してよい | <0.5%RH/年 | | |
| チャンネル | 数 | 2 チャンネル (温度および湿) | 度)。ソフトウェアによる有効・ | | |
| | | 無効設定可。 | | | |
| メモリー | | 64Kバイト(温度、湿度合わ | つせて合計 32,000 件) | | |
| 記録間隔 | | 2/5/10/15/30 (秒) | | | |
| | | 1/2/3/5/10/30 (分) | | | |
| | | 1/2/3/6/12/24 (時間) | | | |
| 記録モード | | 記録間隔ごとの(瞬時値、最大値、最小値、または平均値)を | | | |
| | | 記録 | | | |
| ボタン | | 記録開始、記録停止、測定値の表示 | | | |
| アラーム | | 各チャンネルごとにアラーム上下限値の設定が可能。LED ア | | | |
| | | ラームとホールド機能。 | | | |
| 通信 | | USB 接続(ドライバーのインストールが必要) | | | |
| 電源 | | 1/2 AA 型 3.6V リチウム電池(1200mAh)×1 本 | | | |
| 電池寿命 | | 記録間隔30分で約2年、 | | | |
| | | 記録間隔1時間で約4年、記録なしで約8年 | | | |
| | | (電池寿命は環境温度や LED の使用状況により変化します) | | | |
| 推奨保管環 | 推奨保管環境 10~50℃、20~60%RH(結露なきこと) | | | | |
| 筐体材質 | 筐体材質 ABS、PC、TPU | | | | |
| 重量 約50g (電池含まず) | | | | | |
| 寸法 本体 | | 本体:123×37×23 mm | 本:123×37×23 mm | | |
| 適合規格 | | IP65 相当(キャップに傷、ひび割れがないこと)RoHS | | | |
| | | | | | |

【設定条件】

Sample Rate: 10 minutes Temperature Low Limit: -40.0° C Temperature High Limit: 125.0° C Sample Mode: Instant

(4) データロガー温湿度・気圧計

【仕様】

型式: MHB-382SD

測定項目: 温度・湿度・気圧

| | 測定範囲 | 分解能 | 精度 | |
|---------|---|--------|------------------------|--|
| 温度 | 0~50°C | 0.1℃ | ±0.8℃ | |
| 湿度 | 10~90% | 0.1%RH | ±(4%rdg+1%RH)/70%RH 以上 | |
| | | | ±(4%RH)/70%RH 未満 | |
| 気圧 | 10.0~1000.0hpa | 0.1hpa | ± 2 hpa | |
| | 1000.1~1100.0hpa | | ± 3 hpa | |
| データ出力 | SD カード/USB 出力 | | | |
| メモリーカード | SD カード 1GB~16GB まで対応 | | | |
| 時計機能 | 内蔵 (年/月/日/時/分/秒) | | | |
| サンプリング | 5/10/30/60/120/300/600 秒/オート 初期設定は 60 秒 | | | |
| タイム | | | | |
| 使用環境 | 温度:0~50℃湿度:10~85%RH(ただし結露のないこと) | | | |
| 電源 | 単 4 形乾電池(1.5V)×6 DC9V | | | |
| 電池寿命 | 約 1 ヶ月(アルカリ電池) | | | |
| サイズ | 80(W)×145(H)×32(D)mm 約 260g | | | |

【設定条件】

サンプリングタイム: 600 秒 (10 分)

試験開始の様子

上記温度条件をプログラムした恒温器に上記の試験体を収納し、試験を開始した。なお、 温度ロガーラベルに関しては、下写真の通り、恒温器内のファンにより移動しないよう、 ステンレス製の丸型ザルにクリップにて固定した。



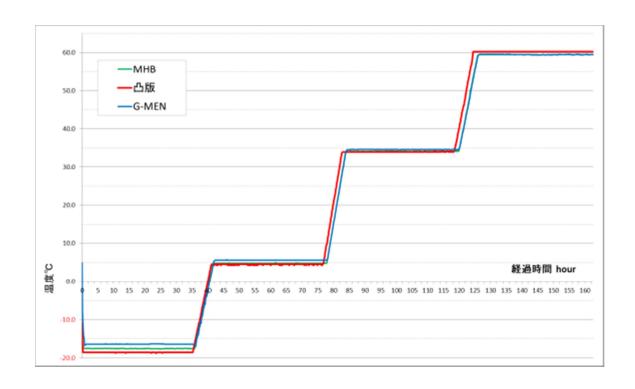
試験結果及び考察

試験開始より約 165 時間経過後、恒温器よりそれぞれの試験体を取り出しその計測値を確認した。下図はそれぞれの計測結果を比較の為に同一グラフ内に表示したものである。

なお、試験体(3)の USB 温湿度データロガーについてはエラーの為に計測結果が得られなかった。

凸版社の温度ロガーラベルは、全工程 9920 分(約 165.3 時間、約 6.9 日)の計測時間に対し、983 個の記録が残されており、実時間との誤差は約 100 分(約 1.7 時間)となり、時間にして 1.0%程度の誤差が生じた結果となった。なお、試験体(2)の G-MEN が誤差 20 分、試験体(4)の MHB は誤差なしであった。

また、温度計測温地について、凸版社の温度ロガーラベルは冷凍帯-18 $^{\circ}$ $^{\circ}$ 0の設定温度に対して-18.5 $^{\circ}$ $^{\circ}$ 0を記録し、冷蔵帯 5 $^{\circ}$ $^{\circ}$ $^{\circ}$ 0に対して4.5 $^{\circ}$ $^{\circ}$ 0、常温帯 35 $^{\circ}$ $^{\circ}$ 0に対して34 $^{\circ}$ 0、高温帯 60 $^{\circ}$ 0に対して60.25 $^{\circ}$ 0と、いずれも1 $^{\circ}$ 0未満の誤差であった。他の試験体に関しては、試験体(2)の G-MEN が冷凍帯で誤差-1.6 $^{\circ}$ 0、その他の温度帯で誤差1 $^{\circ}$ 0未満であり、試験体(4)の MHB はいずれの温度帯も誤差1 $^{\circ}$ 0未満であった。



上記試験結果より、凸版社製の温度ロガーラベルについて、計測値の誤差については十分許容範囲内であると言える。時間誤差については仕様にもあるように最大 2%程度の誤差が生じる可能性があり、これは 1 か月で約 14.4 時間の誤差となる場合があるが、国際物流を考える上では、現在キャリア各社はそれぞれの貨物の追跡情報を Web サイトなどで公開している為、それらの情報を基に航空機や船舶への積載の日時は明確に知ることができる。従って、2%程度の時間誤差はそれらの追跡情報を参考にすることで十分補間可能であり、実務上問題ない範囲であると考えられる。

タイ国(バンコク)への輸送実態調査

対象貨物の選定

今般、当会本部が出荷主となり、各現地法人を受荷主とする貨物輸送での実態調査を計画した。前述の通り、対象となる貨物は温度管理を必要とするものであり、また目的地での輸入通関などの手続きが煩雑となる可能性があることから、海外でも知名度の高く馴染みのあるものとすべきとのことから、チョコレート菓子(キットカット)を選定した。発送数量については、温度ロガーに不具合が生じることを想定し、発送先一か所につき 2 packages ずつとした。

なお、当該貨物は発送前に当会理化学分析センターの冷蔵保管庫(約 6℃)に 1 週間保管し、Pre-Cooling を行った。

温度ロガーラベルは発送する貨物の梱包外部にそれぞれ貼付した。

【バンコク向け貨物】



梱包外観



温度ロガーラベル貼付位置



梱包外観



温度ロガーラベル貼付位置

輸送の記録

当該貨物は、2022 年 12 月 26 日に神奈川県横浜市にある当会理化学分析センターよりヤマト運輸のクール便を使用して出荷した。貨物はその後、成田国際空港の貨物上屋に搬入され、必要な手続きを経て航空機へと搭載された。

貨物の輸送記録は下記の通り。

【バンコク向け貨物】

2022/12/26 11:30 頃 当会理化学分析センターより発送

2022/12/27 09:46 成田国際空港貨物上屋到着

2022/12/29 18:45 NRT にて航空機(NH0805)搭載及び出発

2022/12/30 00:01 スワンナブーム国際空港(BKK) 到着

2022/12/30 01:37 BKK 貨物上屋搬入

2023/01/03 13:45 BKK 貨物上屋搬出

2023/01/03 14:00 頃 NKKT (タイ現地法人) スタッフ貨物受領

2023/01/03 15:30 頃 NKKT バンコクオフィス到着

※バンコク到着以降は現地時間

バンコク向け貨物の輸送温度環境の実態

2023 年 1 月 3 日 15:30 頃、当該貨物が NKKT オフィスに到着し、当会スタッフにより 検品及び温度ロガーの読み取りを実施した。



NKKT オフィス到着時



同左



PP バンドのずれ



バンドによるカートンの凹み



NKKT-01 開梱



カートン内部の温度確認



内装品 (キットカット)



同左



キットカット



同左



NKKT-02 開梱



カートン内部の温度確認



内装品 (キットカット)



同左

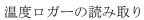




キットカット

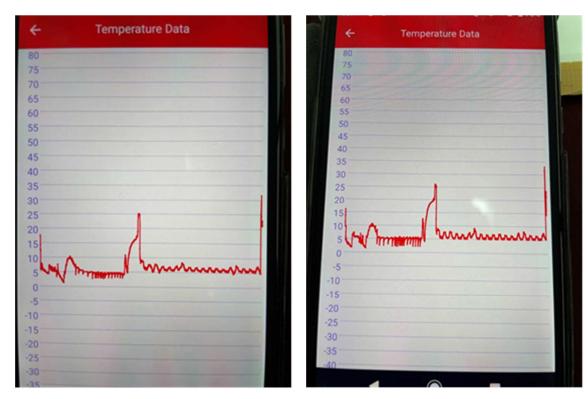








データ受信完了



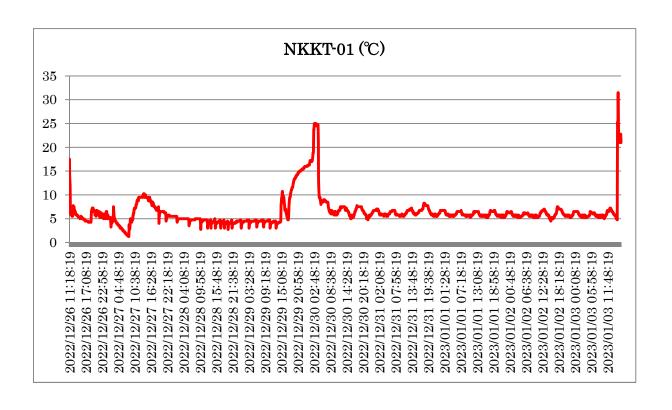
データ読み取り時のスマートフォン画面 NKKT-01 (左) 及び NKKT-02 (右)

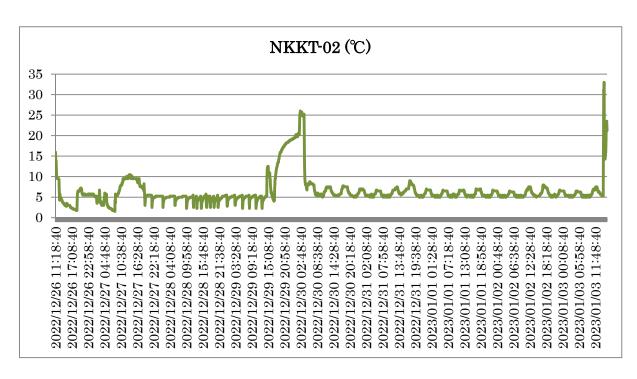
上記写真のとおり、2 packages ともに発送時と同様の状態であり、税関等で開封された 形跡もなく外装、内装及び内容品の状態は問題無かった。当該温度ロガーもしっかりと貼 付された状態のままであった。

オフィスでの開梱時すぐに温度計測を実施したところ、カートン内部は約 $17\sim18$ [°]Cに保たれていた。チョコレート(キットカット)においても、2 packages ともに溶けた形跡や衝撃を受けた形跡、ブルーミング等は無く、本来の形状を保っており、味も問題無かった。

温度記録の読み取りに関しても、タイ国で調達した NFC 搭載のスマートフォン(アンドロイド)に専用アプリケーションをダウンロードし、マニュアル通りに手順を進めることで何ら問題無くデータのダウンロード及びメールによるパソコンへの送信を完了することができた。

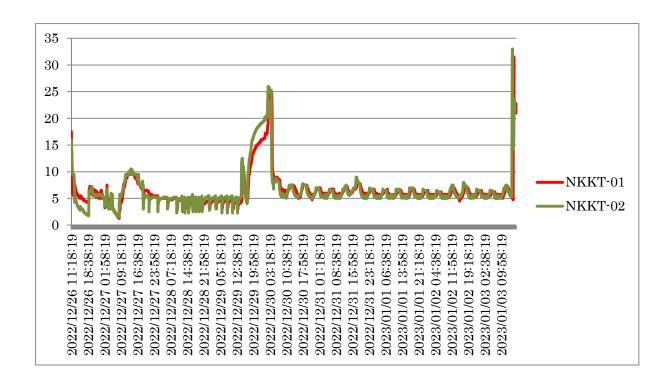
上記のようにスマートフォンによる温度記録を確認することも可能であり、さらには CSV データを E メールにて送信することできる。それらデータをグラフにしたものを次ページに図示する。





Time Interval を 5 分としており、2022 年 12 月 26 日 11:18 をスタートして、バンコク 到着までに約 2360 回の測定記録が収集できた。NKKT-01 及び NKKT-02 の温度記録とも に、輸送中の各ステージにおける温度変化が似通って表れており、当該温度ロガーは適切 に作動していたと考えられる。

参考までに、それぞれの温度ロガー差異を確認するため、2つのデータを合わせたグラフは下記のとおり。



時系列は NKKT-01 のものとしている。 NKKT-01 と NKKT-02 の計測開始の時間差は 21 秒程度であり、検証に際しては大勢に影響ないと判断した。

グラフを見ると、2 packages のデータ間で $2\sim3$ Cほどの温度差が所々に表れており、各カートンが置かれていた状況、特に冷凍庫内では冷風の向きやロガーが貼られていた位置(面)等により、若干の温度差が生じていると思われる。

ともあれ、温度傾向に関してはほぼ同様の上下動を伴っており、これら温度差は許容範 囲内であると思料する。

次に、日本からの輸送航程における各ステージでの温度変化を NKKT-01 のグラフから検証する。下図のグラフは、NKKT-01 のグラフを輸送ステージごとに色分けをしたものである。



上記グラフの時系列の色分けについては、輸送業者や ANA カーゴなどのインターネット上の貨物トラッキングサービスから確認した。12 月 26 日ヤマト運輸にて集荷、トラッキング情報では翌 27 日 09:46 に成田空港近辺のヤマト運輸営業所(成田天神峰営業所)に到着している。一方、温度記録を見ると、ちょうどその時間帯は国内輸送(緑)と空港上屋保管(赤)に移る際に外気温に晒されていると考えられ、約 3 $^{\circ}$ $^{\circ}$ 2 まで下がった温度がここから上昇し始めている。因みに、当日同時刻の千葉県成田市の気温は 9 時時点で 5 $^{\circ}$ $^{\circ}$ 、12 時時点に 10 $^{\circ}$ 2 まで上昇している。(気象庁ホームページ)

この温度記録の上昇は同日 12 時頃に 10 \mathbb{C} をピークとして一旦止まり、空港内の冷蔵倉庫に入れられたころから徐々に下がり始める。空港内上屋に入ってからは、ゆっくりと下がっており、最終的に 5 \mathbb{C} 以下で保管されていた。

29日 14:50 頃、おそらく航空機搭載のため、上屋から搬出されたと思われる温度上昇が始まっている。15:30 頃に 10° C付近まで上昇し、17:30 頃にすぐさま 5° C前後まで下がっている。ANA カーゴのトラッキング情報によると、12月 29日 18:45 に成田空港出発 30日 00:01 (現地時間) にスワンナブーム空港到着となっているので、この間に航空機へ搭載された可能性が高い。Waybill には "KEEP COOL" と指定があるが、一般的に航空機内は冷蔵保管ではないため、離陸後は機内の温度に伴って上昇を続け、到着前には 18° C程度まで上がっている。さらには航空機外へ搬出されたと思われる 30日 00:30 頃から一気に 25° C まで上昇しているため、タイ国到着後に一定時間の屋外に置かれていることは一目瞭然である。この時期のバンコク近郊の気温としては、夜中 00 時頃で 25° C付近、日中では 30° C 以上となる。(タイ現地時間=日本時間-2時間)

同日 02:20 頃に冷蔵倉庫に搬入されたと思われ、温度が 10℃付近まで下がっており、その後は弊社スタッフの受け取りまで 5~7℃の温度帯で保管されていたことがわかる。温度変化が見られないことから、航空機から搬出された後は受取り場所である THAI Cargo Terminal (スワンナブーム空港貨物地区にあるタイ航空の冷蔵倉庫) に直接搬入されたと見受けられる。

THAI Cargo Terminal での受け取り後は、乗用車にてオフィスまで運ばれたため、外気温や車内及びオフィス内の温度の影響を受けて、温度上昇が記録された形となった。

バンコク向け貨物の輸送実態に関しての所見

本調査の目的である、航空輸送による温度環境の実態を調査する上で今回の温度ロガーによるデータは非常に有益なものであった。実際の輸送環境(温度環境)を数値化して把握することが出来るため、同時にさらに多くのデータ収集の必要性を感じた。本調査においては航空機輸送中や積み替えのタイミングなどでは外気に晒されていることが明らかとなった。同様の日本からタイ向けであっても、温度ロガーの貼付位置や輸送時期を変えることで異なったデータが収集できるはずであり、さらなる調査を続けていきたい。

台湾(台北)への輸送実態調査

対象貨物の選定

対象貨物は上述のバンコク向けと同様の理由より、チョコレート菓子(キットカット)を選定した。発送数量も2 packages とし、発送前に当会理化学分析センターの冷蔵保管庫(約6°C)に1 週間保管し、Pre-Cooling を行った。

温度ロガーラベルは発送する貨物の梱包外部にそれぞれ貼付した。

【台北向け貨物】



梱包外観



温度ロガーラベル貼付位置





梱包外観

温度ロガーラベル貼付位置

輸送の記録

当該貨物は、2022 年 12 月 26 日に神奈川県横浜市にある当会理化学分析センターより ヤマト運輸のクール便を使用して出荷した。貨物はその後、成田国際空港の貨物上屋に搬入され、必要な手続きを経て航空機へと搭載された。

貨物の輸送記録は下記の通り。

【台北向け貨物】

2022/12/26 11:30 頃 当会理化学分析センターより発送

2022/12/27 09:46 成田国際空港貨物上屋到着

2022/12/30 08:07 NRT にて航空機 (NH9647) 搭載及び出発

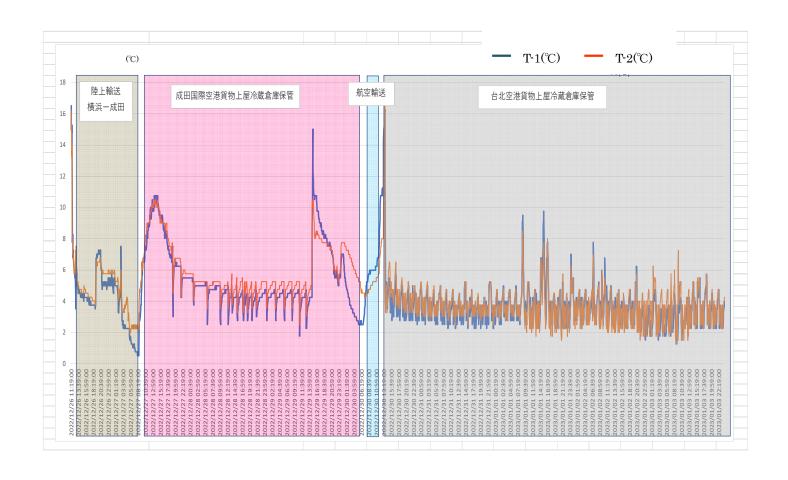
2022/12/30 11:07 TPE 国際空港到着

2022/12/30 12:28 TPE 貨物上屋搬入

台北向け貨物の輸送温度環境の実態

当該貨物は、前述の通り 2022 年 12 月 30 日に台北松山空港に到着した。尚、貨物が年末年始の官庁祝日期間となり、貨物の引き取りが困難となったため、貨物上屋にて温度ロガーのみ回収し測定記録を取得した。尚、台北松山空港と弊会台湾オフィスが近いことから、台湾の国内輸送中は温度変化が少なく、貨物への影響も少ないものと考える。

回収した温度ロガー(T-1, T-2)よりデータを抜き取り、下記のグラフを作成した。



上記より、温度ロガーT-1, T-2 の記録温度は、若干の差はあるが、取り付けられていた 2 つのカートンの保管場所が異なっていたためと思われるが、大きな差異はなかった。 このため、これより検証する温度記録は、温度ロガーT-1 の記録を使用する。

以下、各ステージ毎にロガー記録温度(以下 貨物温度)および外気温度との相関について検証を行った。

[国内陸上輸送:横浜 → 成田]



上記グラフは、横浜市金沢区に所在する当会理化学分析センター出荷(2022 年 12 月 26 日 12 時頃)から成田国際空港貨物上屋到着(2022 年 12 月 27 日 10 時頃)までの22 時間の温度記録である。また、横浜と成田の外気温度を表示している。貨物が、いつ横浜より成田に輸送されたかが明白ではないため、出発地と到着地の外気温度を上記全期間に表示した。

貨物温度は、出荷後徐々に下がり 18 時頃に 4℃まで下降している。その後、一旦上昇し 20 時過ぎより再び下降を開始し 27 日 07 時頃に 0℃近くまで下がっている。この期間の貨物温度の下降ラインは外気温度の下降と一致している。

上記より、貨物は国内輸送業者が引取り後、業者の冷蔵倉庫に保管。その後、冷蔵倉庫から取り出され成田便のトラックの積載準備スペースに置かれた。その後、27日07時頃にトラックに積載され成田に向け出発したものと思われる。



貨物は、2022 年 12 月 27 日 10 時前に成田国際空港貨物上屋に到着。その後、15 時頃に冷蔵倉庫に搬入されたと読み取れ、この約 5 時間の貨物温度は外気温度の上昇と一致している。冷蔵倉庫搬入後は、ほぼ 4℃前後で保管されている。

当時は、寒波の影響で関東地方は冷え込み、上記外気温度の通り成田地域も─2℃を下回る気温を記録しているが、貨物は、12月29日13時頃まで冷蔵倉庫で一定の温度で保管されていた。

その後、貨物は翌朝のフライトの搭載準備のために冷蔵倉庫より搬出された模様である。 29 日午後の最高気温は 13℃であり、冷蔵倉庫から出された直後より貨物表面温度は一気に 15℃まで上昇している。その後、夕方から夜間になり外気温度の下降と共に貨物温度も下 降している。

[成田空港保税冷蔵庫から航空機搭載まで]および[航空輸送中]



上記の通り航空機内では、約6℃で安定した保管温度となっていた。

[台北空港での航空機から保税冷蔵庫への搬入まで]および [台北空港保税冷蔵倉庫での保管中]



航空機は 2022 年 12 月 30 日 11 時台北空港に到着。台北空港保冷冷蔵倉庫に搬入されたと 思われる同日 13 時過ぎ頃までの 2 時間は、貨物温度は外気の影響を受け約 16℃まで上昇 しているが、その後、台北空港内の保冷冷蔵倉庫内搬入後の 2023 年 1 月 3 日までの期間、 貨物は約 6℃で良好に保管されていた。

台北向け貨物の輸送実態に関しての所見

本実験で、輸送指示温度 5℃の貨物は、各ステージの冷蔵倉庫内および航空機内で±2℃程度の幅はあるものの適切に保管されていたことが実証できた。しかしながら、冷蔵倉庫への搬入・搬出、および搬出前の積み込みエリアでの保管中は外気温度の影響を強く受けている。

今回の実験は、12 月から 1 月の冬季に行ったため外気温度も最高が 16^{\circ} C程度であり、輸送期間中に外気温度の影響を受けた期間もあったが貨物への影響は見られなかった。

しかしながら、外気温度が 30℃を超える夏季に冷蔵倉庫内保管中以外の搬入・搬出、およびそれらの前後の仮置き期間が今回と同様の時間を要する場合は、外気温度が貨物に何らかの影響を与える可能性があると思われる。

次回は、外気温度が高くなる夏季に、同条件で実験を行い輸送中の冷蔵倉庫搬入・搬出 作業前後の貨物が受ける温度の影響を検証する必要があると思料する。

参考資料:気象庁「過去の気象データ」

ベトナム(ホーチミン)への輸送実態調査

対象貨物の選定

ホーチミンへの対象貨物も上述の理由より、チョコレート菓子(キットカット)を選定したが、ベトナムの場合は当該貨物の本輸送に先立ち、発送貨物のサンプルを空輸し予め当該貨物が輸入できるよう許可を取得した。発送数量は2 packages とし、発送前には当会理化学分析センターの冷蔵保管庫(約6°C)にて1 か月保管し、Pre-Cooling を行った。

また、第一段階(バンコクと台北)の輸送では温度ロガーラベルは梱包外部のみに貼付していたが、記録される温度は外気温の影響を大きく受けることから、今回は梱包内部にもそれぞれロガーを設置することとした。

【ホーチミン向け貨物】



温度ロガーラベル (内部) 貼付



温度ロガーラベル (内部) 貼付位置



梱包外観



温度ロガーラベル (外部) 貼付位置



温度ロガーラベル (内部) 貼付



温度ロガーラベル (内部) 貼付位置



梱包外観



温度ロガーラベル (外部) 貼付位置

輸送の記録

当該貨物は、2023年1月20日に神奈川県横浜市にある当会理化学分析センターよりヤマト運輸のクール便を使用して出荷した。貨物はその後、成田国際空港の貨物上屋に搬入され、必要な手続きを経て航空機へと搭載された。

貨物の輸送記録は下記の通り。

【ホーチミン向け貨物】

2023/1/20 14:50 頃 当会理化学分析センターより発送

2023/1/24 10:22 成田国際空港貨物上屋到着

2023/1/25 19:02 NRT にて航空機 (NH0833) 搭載及び出発

2023/1/25 23:38 SGN 国際空港到着

2023/1/26 06:08 SGN 貨物上屋搬入 2023/1/27 品質検査登録

2023/1/29 品質検査完了

2023/1/31 VNKK HCMC(ホーチミン)オフィス到着

ホーチミン向け貨物の輸送温度環境の実態

貨物がオフィスへ到着した際、2 packages に破れ、へこみ、濡れなどもなく、概ね正常な状態であった。いくつかの個装を開封し、さらに状態を確認したところ、貨物は溶けたりベタベタしたりすることなく正常な状態にあり、輸送中、許容範囲内の温度で輸送されたものと考えらえる。



VNKK HCMC オフィス到着時



同左



カートン VNKK-01 開封時の状態



同左



カートン VNKK-01 内、個装開封時の状態



同左

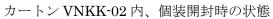




カートン VNKK-02 開封時の状態

同左







同左

また、2packages それぞれの外側と内側の温度ロガーラベルにも損傷は無く、温度データの取得を行った。



外側のラベル

内側のラベル







外側のラベル

内側のラベル





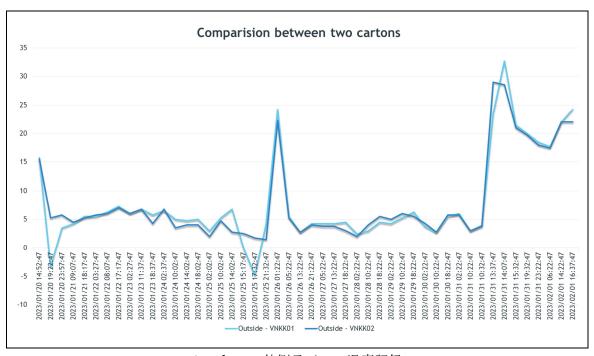
温度記録の読み取り作業は容易で、取得情報は簡潔にまとめられており、記録温度は事前 に設定した測定間隔通りに記録されていた。



外側ラベルの記録データ取得 (周囲温度: 23℃、ロガー表示:23℃)



内側ラベルの記録データ取得 (周囲温度: 23℃、ロガー表示:25℃)



2packages 外側ラベルの温度記録

収集した記録から、各カートンの輸送記録は以下の通りであった。

VNKK-01、カートン内外のラベル読み取り記録

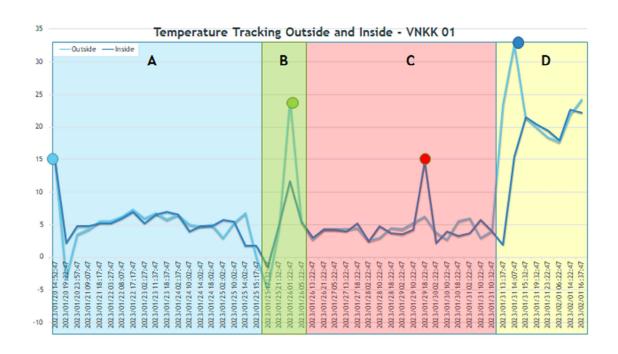
カートン外側のラベルから収集したデータ

| UID | 1D:A1:B2:95:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 32.75°C |
| Minimum Temperature: | -4.75°C |
| Logging Points: | 3478 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 300s |
| Start Time: | 2023/01/20 14:22:47 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

カートン内側のラベルから収集したデータ

| UID | 1D:97:B8:95:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 30.75°C |
| Minimum Temperature: | -1.75°C |
| Logging Points: | 3487 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 300s |
| Start Time: | 2023/01/20 14:22:17 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

VNKK-01 カートン内外の温度差異を確認するため、2 つのデータを合わせたグラフは下記のとおり。



グラフの説明:

(A): 日本側の準備:貨物は冷蔵保管され、温度ロガーラベルが貼付された。

ピーク:準備中の室温/周囲温度。

(B): 2023/01/25 18:10 貨物が成田空港にて、積込み前に冷蔵倉庫に移される。 2023/01/25 19:02 NH-0833 便が成田空港を出発。

2023/01/25 23:38 NH-0833 便がベトナム、SGN(タンソンニャット空港到着。

ピーク:カートンが倉庫に入れられる。

(C): タンソンニャット空港、冷蔵倉庫での保管

2023/01/29 税関は通関手続きのために貨物を開封し、温度ロガーラベルが貼られた袋を取り出した。

(D): VNKK オフィスへの輸送と保管

貨物は搬出され、通常のトラックで VNKK 事務所に配送された。

VNKK-02、カートン内外のラベル読み取り記録

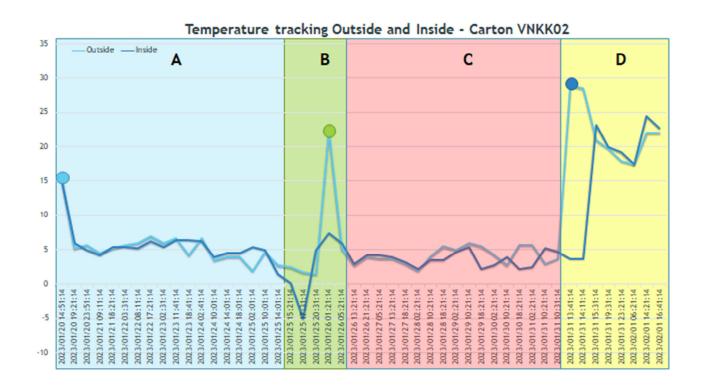
カートン外側のラベルから収集したデータ

| UID | 1D:0E:B1:95:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 29.0°C |
| Minimum Temperature: | -6.5°C |
| Logging Points: | 1741 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 600s |
| Start Time: | 2023/01/20 14:11:14 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

カートン内側のラベルから収集したデータ

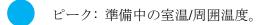
| UID | 1D:1C:B0:95:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 31.25°C |
| Minimum Temperature: | -5.5°C |
| Logging Points: | 1748 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 600s |
| Start Time: | 2023/01/20 14:11:24 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | :0 |

VNKK-02 カートン内外の温度差異を確認するため、2 つのデータを合わせたグラフは下記のとおり。



グラフの説明:

(A): 日本側の準備:貨物は冷蔵保管され、温度ロガーラベルが貼付された。



(B): 2023/01/25 18:10 貨物が成田空港にて、積込み前に冷蔵倉庫に移される。 2023/01/25 19:02 NH-0833 便が成田空港を出発。 2023/01/25 23:38 NH-0833 便がベトナム、SGN(タンソンニャット空港到着。

ピーク: カートンが倉庫に入れられる。

(C): タンソンニャット空港、冷蔵倉庫での保管

(D): VNKK オフィスへの輸送と保管

貨物は搬出され、通常のトラックで VNKK 事務所に配送された。

フォワーダーから入手した口頭による情報、並びにカートン内外の温度ロガーラベルから 収集したデータから、次の結果が得られた。

- カートンは、2023 年 1 月 26 日の航空機への積み下ろしのための搬出、1 月 29 日の税 関検査、1 月 31 日の VNKK オフィスへの配達期間を除き、大半の輸送区間で冷蔵倉庫 に保管されていた。
- 日本側での貨物の温度は比較的安定していたが、ベトナム側タンソンニャットでの倉庫で保管している間は温度が頻繁に変化していた。原因の 1 つは、この荷物は少量かつ速やかに出荷が予定されていたため、ドアの近くや狭い場所に保管されていた可能性があり、これにより、冷たい空気が定期的に逃げ、ロガーラベルに記録される温度が不安定になったものと思われる。

ホーチミン向け貨物の輸送実態に関しての所見

本輸送に関しては、貨物は正常な状態で配達され、温度ロガーのラベルには、輸送中に取得された信頼性の高いデータが記録されていた。また、航空機による輸送中、通常の荷扱いにおいて、誤動作や目に見える損傷は無いことからラベルは耐久性があるものと考えられる。取得したデータから、輸送中の航空機からの荷下ろし、および冷蔵倉庫から搬出される際はカートン外側のロガーは外気の影響を受けるため温度が上昇している一方、カートン内のロガーは大きな温度上昇は見られなかった。これは貨物が既に冷やされているため、ある一定の期間、温度の上昇を軽減できたものと考えられ、冷蔵貨物のPre-cooling並びに外気にさらされる時間を如何に少なくすることが重要であると考えられる。

今後、他の貨物や輸送時期、輸送形態の違い等異なった条件で、さらなる調査を続けていきたい。

ベトナム(ハノイ経由ハイフォン)への輸送実態調査

対象貨物の選定

ハノイへの対象貨物も上述の理由より、チョコレート菓子 (キットカット) を選定した。 発送数量は 2 packages とし、発送前には当会理化学分析センターの冷蔵保管庫(約 6 $\mathbb C$)にて 1 か月保管し、Pre-Cooling を行った。

また、ホーチミンと同様に梱包内部にそれぞれロガーを設置することとした。

【ハノイ向け貨物】



温度ロガーラベル (内部) 貼付



温度ロガーラベル (内部) 貼付位置



梱包外観



温度ロガーラベル (外部) 貼付位置



温度ロガーラベル (内部) 貼付



温度ロガーラベル (内部) 貼付位置





梱包外観

温度ロガーラベル (外部) 貼付位置

輸送の記録

当該貨物は、2023年3月6日に神奈川県横浜市にある当会理化学分析センターよりヤマト運輸のクール便を使用して出荷した。貨物はその後、成田国際空港の貨物上屋に搬入され、必要な手続きを経て航空機へと搭載された。

貨物の輸送記録は下記の通り。

【ハノイ経由ハイフォン向け貨物】

2023/3/6 16:26 頃 当会理化学分析センターより発送

2023/3/7 10:32 成田国際空港貨物上屋到着

2023/3/9 17:58 NRT にて航空機(JL751)搭載及び出発

2023/3/9 21:49 ノイバイ国際空港(HAN)到着

2023/3/10 早朝 HAN 貨物上屋搬入

2023/3/14 VNKK HPH (ハイフォン)オフィス到着

ハノイ経由ハイフォン向け貨物の輸送温度環境の実態

貨物がオフィスへ到着した際、2 packages に破れ、へこみ、濡れなどもなく、概ね正常な状態であった。いくつかの個装を開封し、さらに状態を確認したところ、貨物は溶けたりベタベタしたりすることなく正常な状態にあり、輸送中、許容範囲内の温度で輸送されたものと考えらえる。



VNKK HCMC オフィス到着時



カートン VNKK-03 開封時の状態



同左



カートン VNKK-03 内、個装開封時の状態



同左



カートン VNKK-04 開封時の状態



同左



カートン VNKK-04 内、個装開封時の状態



同左

また、2packages それぞれの外側と内側の温度ロガーラベルにも損傷は無く、温度データの取得を行った。



カートン VNKK-03、外側のラベル



カートン VNKK-03、内側のラベル



カートン VNKK-04、外側のラベル



カートン VNKK-04、内側のラベル

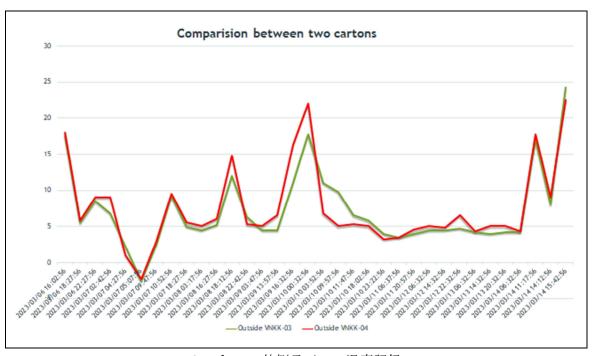
温度記録の読み取り作業は容易で、取得情報は簡潔にまとめられており、記録温度は事前に設定した測定間隔通りに記録されていた。(VNKK-03:5 分間隔、VNKK-04:10 分間隔。)



外側ラベルの記録データ取得 (周囲温度: 24.5℃、ロガー表示:24.25℃)



内側ラベルの記録データ取得 (周囲温度: 24.25℃、ロガー表示:22℃)



2packages 外側ラベルの温度記録

収集した記録から、各カートンの輸送記録は以下の通りであった。

VNKK-03、カートン内外のラベル読み取り記録

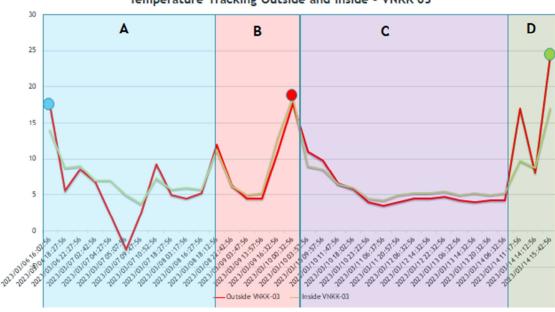
カートン外側のラベルから収集したデータ

| UID | 1D:E8:22:90:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 26.75°C |
| Minimum Temperature: | -6.5°C |
| Logging Points: | 2307 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 300s |
| Start Time: | 2023/03/06 15:07:56 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

カートン内側のラベルから収集したデータ

| UID | 1D:EE:22:90:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 20.75°C |
| Minimum Temperature: | 3.75°C |
| Logging Points: | 2314 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 300s |
| Start Time: | 2023/03/06 15:01:50 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

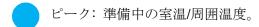
VNKK-03カートン内外の温度差異を確認するため、2つのデータを合わせたグラフは下記のとおり。



Temperature Tracking Outside and Inside - VNKK 03

グラフの説明:

(A): 日本側の準備:貨物は冷蔵保管され、温度ロガーラベルが貼付された。



(B): 2023/03/08 21:36 貨物が成田空港にて、積込み前に冷蔵倉庫に移される。 2023/03/09 17:58 JL751 便が成田空港を出発。

2023/03/09 21:49 JL751 便がベトナム、HAN(ノイバイ空港)到着。

- ピーク:カートンが倉庫に入れられる。
- (C): ノイバイ空港、冷蔵倉庫での保管
- (D): VNKK オフィスへの輸送と保管
- 貨物は搬出され、冷蔵トラックで VNKK 事務所に配送された。

VNKK-04、カートン内外のラベル読み取り記録

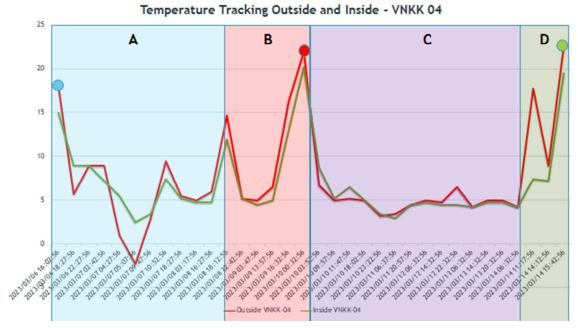
カートン外側のラベルから収集したデータ

| UID | 1D:47:23:90:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 24.75°C |
| Minimum Temperature: | -6.0°C |
| Logging Points: | 1155 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 600s |
| Start Time: | 2023/03/06 15:19:15 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

カートン内側のラベルから収集したデータ

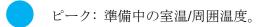
| UID | 1D:84:23:90:00:00:70 |
|--------------------------------|---------------------------------|
| Status: | In Temperature Measurement Flow |
| Maximum Temperature: | 27.25°C |
| Minimum Temperature: | 2.25°C |
| Logging Points: | 1154 / 4864 |
| Limited Temperature Range: | [-40.0°C,80.0°C] |
| Delay Time: | 30m |
| Time Interval: | 600s |
| Start Time: | 2023/03/06 15:12:37 |
| Number of Over Low Threshold: | 0 |
| Number of Over High Threshold: | 0 |

VNKK-04カートン内外の温度差異を確認するため、2つのデータを合わせたグラフは下記のとおり。



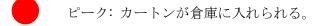
グラフの説明:

(A): 日本側の準備:貨物は冷蔵保管され、温度ロガーラベルが貼付された。



(B): $2023/03/08\ 21:36$ 貨物が成田空港にて、積込み前に冷蔵倉庫に移される。 $2023/03/09\ 17:58\ JL751$ 便が成田空港を出発。

2023/03/09 21:49 JL751 便がベトナム、HAN(ノイバイ空港)到着。



(C): ノイバイ空港、冷蔵倉庫での保管

(D): VNKK オフィスへの輸送と保管

貨物は搬出され、冷蔵トラックで VNKK 事務所に配送された。

フォワーダーから入手した口頭による情報、並びにカートン内外の温度ロガーラベルから 収集したデータから、次の結果が得られた。

- カートンは、2023年3月10日の航空機への積み下ろしのための搬出、3月14日のVNKK オフィスへの配達期間を除き、大半の輸送区間で冷蔵倉庫に保管されていた。
- 輸送中の貨物温度は頻繁に変化していた。原因の 1 つは、この荷物は少量かつ速やかに出荷が予定されていたため、恐らくドアの近くや狭い場所に保管されていた、または貨物がさまざまな輸送手段を介して移動されたことが考えられる。これにより、冷たい空気が定期的に逃げ、ロガーラベルに記録される温度が不安定になったと考えられる。

尚、ノイバイ空港は3つのカーゴターミナルを保有しており(ACSV, ALSC, NCTS)、 各航空会社は同ターミナル内にそれぞれ異なったターミナルを所有している。

ノイバイ空港から VNKK オフィスへの輸送に使用された冷蔵トラック







ハノイ経由ハイフォン向け貨物の輸送実態に関しての所見

本輸送に関しては、貨物は正常な状態で配達され、温度ロガーのラベルには、輸送中に取得された信頼性の高いデータが記録されていた。また、航空機による輸送中、通常の荷扱いにおいて、誤動作や目に見える損傷は無いことからラベルは耐久性があるものと考えられる。

取得したデータから、輸送中の航空機からの荷下ろし、および冷蔵倉庫から搬出される際はカートン外側のロガーは外気の影響を受けるため温度が上昇し、またホーチミン向けと異なりカートン内のロガーも同じタイミングで温度上昇している。これは輸送中や冷蔵倉庫保管中に隣接していた他の貨物や保管位置の影響をうけ、積替え及び搬出前の貨物並びにカートンの表面温度が一定に保たれていないことや、ホーチミンに比べハノイの外気温が低いため外気温の影響を強く受けたものと考えられる。

しかしながら、ハノイ向け貨物も冷蔵トラックからの荷下ろし後、カートン内部の温度上 昇はカートン外部と比較し緩やかであることから、貨物の温度管理並びに外気にさらされ る時間を短縮することが重要であると考える。

今後、ホーチミンの検証と同様に他の貨物や輸送時期、輸送形態の違い等異なった条件で、 さらなる調査を続けていきたい。

Current Status of Myanmar

12 foreign economic organizations express concern about Mandatory currency exchange

Twelve foreign chambers of commerce and industry in Myanmar issued a joint statement on April 8 expressing concern over the notification by the Central bank of Myanmar, which is under the control of the national military, stipulating the mandatory exchange of foreign currency remitted from abroad into local currency.

The statement was issued by the American Chamber of Commerce in Myanmar, the European Chamber of Commerce, the Japanese Chamber of Commerce and Industry in Myanmar, and other national chambers of commerce and industry.

Nothing that the regulatory exceptions are uncertain and create significant and for some businesses, insoluble challenges for all companies doing business in Myanmar.

On April 3, the Central Bank of Myanmar issued a notice that foreign currency received in Myanmar must be converted into the local currency, within one business day. The lack of a specific roadmap and scope of application has caused widespread confusion among businesses.

In response to this situation, the Japanese Chamber of Commerce and Industry in Myanmar, (JCCI Myanmar) called on its member companies on April 7 to Strongly recommend that they consider remitting foreign currency to Myanmar and temporarily.

Gold exports expected to resume with the start of international flights

Exceptions are rising for the resumption of gold exports in Myanmar, where the takeoff and landing ban on international flights will be lifted on April 17.

According to YGEA, the main buyers of Myanmar gold and jewelry are Japan and South Korea.

Inviting investment for Edible oil crops Myanmar investment commission

To fulfill the needs of national development, the Myanmar investment commission will prioritize the investment activities related with production of edible oilseeds, contract farming for edible oil crops, production of various types of edible oil.

Both foreign and Myanmar citizen investors are welcomed to invest in said investment sector and the Myanmar Investment Commission, the concerned Ministries and the Governments of respective States and Regions will provide necessary assistance expeditiously to the investors.

Approval of Chinese Currency for border trade; coordination meeting held

Following the approval by the authorities for direct Yuan settlement for border trade between Myanmar and China, a coordination meeting was held in the capital Nay Pyi Taw on April 2.

Deputy Governor of the Central Bank of Myanmar, introduced the procedures, guidelines, and other practical information on settlements in Yuan. Brigadier General bilateral cooperation between China and Myanmar on direct Yuan to Kyats settlement and the advantages of direct settlement.

Challenges of RMB were also discussed by the financial institutions present a the conference.

Direct Yuan-Kyat settlement is intended to expand cross-border trade between the two countries, reduce dependence on the USD, and promote the use of the local currency, the Myanmar Kyat. In January, Myanmar officially approved direct settlement between the Myanmar Kyat and the Yuan for border trade with China. Direct settlement began on the 12th of the same month.

Exemption from compulsory exchange for SEZ and other mandatory currency Central Bank changes policy, but still Limited relaxation

On April 20, the Central Bank of Myanmar, which is under the control of the Myanmar Armed Forces, issued a notice to remove companies in special Economic Zones (SEZs) from the mandatory exchange of foreign currencies. This was in response to criticism from foreign companies that the charge would have a serious impact on their local business, but local Japanese companies are of the opinion that this is only limited relaxation and that there are still many companies subject to the mandatory exchange requirement.

The Foreign Exchange Supervisory Board under the Central Bank of Myanmar (CEB) has issued a notification summarizing the exception rules. The notice stipulates excludes that foreign direct investment (FDI) companies that have been approved by the Myanmar Investment Commission (MIC), Companies that invest in and operate SEZs,

Diplomats, their family and other foreign employees working at embassies in Myanmar, Employees of UN agencies and Myanmar citizens holding UN transit passes, Foreign employees working for organizations supporting Myanmar development from abroad, Foreign employees of international organizations and development support organizations and Myanmar government and Myanmar-owned airlines.

On April 3, the Central Bank issued a notice that it would make it mandatory to exchange foreign currency deposited from abroad into MMK in bank accounts. With the difficulty in exchanging MMK to foreign currency, various economic activities were affected.

The Japanese Chamber of Commerce and Industry of Myanmar (JCCM) and 12 other foreign chambers of commerce and industry issued a joint statement on August 8 expressing concern over the notice on foreign currency exchange. The Embassy of Japan in Myanmar sent a letter to the Central Bank of Myanmar requesting the withdrawal of the notice, saying that it would make it impossible for companies and various institutions that have advanced into Myanmar to continue their business.

Many Japanese companies remain uneasy

The local Japanese business official said (this concession by the Central Bank is a small step.)

Foreign-invested enterprises operating locally include those that have obtained approval from the Board of Investment under the Investment Law as well as those that have registered with the Board of Investment under the Department of Investment and Company Administration (DICA) under the Company Law. Another Japanese company official pointed out that many Japanese companies are still subject to forced currency exchange, and further concessions by the Central Bank regarding the notice are expected.

Companies in the Thilawa SEZ, the only SEZ in the country located in the suburbs of Yangon, the largest city in the country, are now exempted from the mandatory currency exchange requirement. However, industry insiders said, Confusion will continue unless transactions between SEZ tenants and companies located outside the SEZ are also exempted. In the Thilawa SEZ, 98 companies were in operations as of April 1.

In Myanmar, not only the local currency MMK but also foreign currencies are used for payments. In particular, U.S dollars are often used for settlements of large amounts. If the content of the notification is not relaxed, transactions between companies may be delayed and economic activities may be severely hampered.

Import License application after cargo arrival is not allowed, starting on the 20^{th}

The Department of Trade of Myanmar Ministry of Commerce has announced a policy that, in principle, it will not allow applications for import licenses after cargoes have arrived at ports, starting on April 20. Ministry of Commerce Circular No.93 of 2015 on Import and Export Regulations stipulates that (no goods shall arrive before obtaining an import license) for items requiring an import license. No.50 of the same 20 years states that with some exceptions, goods shall not be shipped before obtaining an import license. The Ministry of Planning and Finance earlier issued a notice requesting compliance with the Ministry of Commerce Circular NO.50 of the 20 year. The Ministry of Commerce previously allowed cargo to be shipped before obtaining an import permit to facilitates smooth trade. An increasing number of traders were applying for import licenses after the arrival of cargo.

End.

Nisshin Electric to connect welding technology in Southeast Asia metal processing in Myanmar

Nisshin Electric has established a metal processing plant in the suburbs of Yangon, Myanmar and this will be the third country in the association of Southeast Asia Nations (ASEAN), following Thailand and Vietnam, to have a base for contracted production of equipment parts. Thai national will be in charge of the plant, which will serve as a new base to take over the Japanese welding technology that has permeated both existing bases, with the aim of building up a staff of about 100 employees in the two to three years.

Through Nisshin Electric Myanmar, a local subsidiary established in 2019, the company has developed a production system under two crises: a pandemic of a new coronavirus infection and political instability. The site is in the Thilawa Special Economic Zone (SEZ) near Yangon. In February, the company made its first delivery of metal parts to a local agricultural machinery manufacturer.

The new factory will first transfer production of parts manufactured in both Thailand and Vietnam that are no longer cost-competitive. The company will also gradually begin processing more difficult equipment parts and manufacturing electrical equipment.

Hideki Amami, managing director in charge of Nisshin electric equipment component solutions business (concurrently serving as representative of the three Southeast Asian bases), expressed his desire to "develop the Myanmar base despite the difficult situation." According to Amami, who has guided the Thai and Vietnamese bases since their early days, Myanmar is the most outstanding when looking back on the start-up of each base.

The equipment and component solutions division has set a target of increasing sales approximately 10 billion yen until FY2023. The company strategy is to expand orders by establishing a system in which products for customers in Japan are manufactured on a trial basis at Nisshin Electric production department and then mass-produced at three bases in ASEAN countries. This strategy is aimed at increasing orders.

Trucks in the Myanmar side cross over the border to China with a driving service

From May 16, trucks on the Myanmar-China border have been allowed to cross the border to the Chinese side through the Myanmar side's truck driving method.

The border crossing by the driving method was approved at the border checkpoint between Chinsancho, near Muse, Shan State, central Myanmar, and the town of Qiao, Ruili, Yunnan Province, China. Detailed regulations have not yet been announced.

As a measure against Covid-19, China had previously banned trucks and drivers from the Myanmar side from entering China and allowed only short-haul trucks from the Chinese side to cross the border. As a result, the number of trucks entering China from Myanmar via Chin Sanchaw dropped from 400 per day to 30 per day, hurting exports of rice and other commodities.

Dividends by military-affiliated companies, no payment to military personnel after political change.

Dividend payments from Myanmar Economic Holdings Limited (MEHL), a Myanmar military-owned conglomerate, to the state military have been delayed since the 2021 coup. The information was reported by the electronic media outlet Irrawaddy on May 18 as information from a military officer who holds shares in MEHL.

For more than 20 years, the national army has been allocating MEHL shares to military personnel in the amount of about 1.5 to 3 million kyat (about USD104,000 to USD208,000), depending on their rank, and dividends have been paid at the end of September, MEHL's fiscal year end. The first payment after the coup was scheduled for November but has not materialized.

A stock holding worth 100,000 kyat earns at least 30,000 kyat, and the average amount received by one military person is 450,000 kyat. For many target persons, it is an important source of livelihood.

MEHL's mainstay beer and tobacco businesses fell after the coup due to a boycott by democratic faction.

Kirin Holdings (HD), a joint venture in the beer business, announced in its earnings results for the first quarter of FY2010 (January-March) that the joint venture's business profit declined by 700 million yen from the same period of the previous year. Kirin HD decided to dissolve the joint venture after the political change and is negotiating to withdraw from the joint venture.

Meanwhile, some in the country believe that profits that should be distributed to military personnel have been secured. A former captain who left the national army in April of this year told the independent media Myanmar Now, "The national army used the profits from MEHL to pay for the National Army Memorial Day parade and Myanmar New Year (Thingyan) events," he told Myanmar Now, an independent media outlet.

Labeling Orders Concerning Prepackaged Foods (Myanmar Laws Related to Entering the Myanmar Market)

This article introduces the provisions of the Labeling Order for Prepackaged Foods regarding the publication of the list of raw ingredients.

In publishing the list of raw ingredients in the label of prepackaged foods, the following items are required (Article 7 of this Order)

- (a) Except for single ingredient foods, the list of raw ingredients must be published on the label.
- (b) The name of the item shall be "Ingredients".
- (c) All ingredients must be listed in descending order of their incoming weight at the time of food production.
- (d) If the raw material itself is the product of two or more ingredients, the composite raw material may be published, with the list of ingredients accompanied by parentheses enclosing the list of ingredients in descending order of percentage. If the composite raw material is established in Myanmar and Codex Standards and the composite raw material constitutes less than 5% of all food ingredients other than food additives, it need not be published. (e.g., if masala constitutes more than 5% of the ingredients, the ingredient list may publish = masala, farah, pineapple flowers, etc. = or if it constitutes less than 5% of the ingredients, only the masala may be published).
- (e) If a food ingredient is known to cause hypersensitivity to consumers as follows, it shall be published in bold or other obvious hypersensitivity wording by accompanying such ingredient.
 - (1) Grains containing gluten (wheat, barley, oats, spelt, or their hybrid strains and products)
 - (2) Crustaceans and their products
 - (3) Eggs and egg products
 - (4) Fish and fish products
 - (5) Milk and milk products (including lactose)
 - (6) Peanuts, soybeans, miso and its products
 - (7) Nuts and products thereof

- (8) Sulfites in concentrations of 10 milligrams per kilogram or more
- (f) There is no publication of hypersensitive raw materials under the section (e), but if such raw materials may be constituted in the manufacturing process, they must be published as "constituting a hypersensitive product" by being appended below the list of raw materials. In doing so, pictures or symbols may be used to facilitate understanding.
- (g) Water added must be published in the ingredients list, while water forming part of ingredients such as brine, syrups, broths, etc. used in composite foods will be so published in the ingredients list. Water or other volatile raw materials that evaporate during production need not be published.
- (h) Dehydrated or condensed foods intended to be reconstituted by the addition of water only, if prepared instead of using the item name "Ingredients", may list the ingredients in proportionate order in the reconstituted product, if any, such as product ingredients. In doing so, the quantity per serving shall be clearly disclosed.
- (i) The presence of food or food ingredients obtained through biotechnology of allergens transferred from any of the products listed in the section (e) must be published. (e.g., genetically modified food or food ingredients)
- (j) Animal oil obtained from pigs and cows must be published under a specific name.
- (k) When publicizing food additives by type, special expressions such as "natural", "naturally identical" or "artificial" may be added. For example, in the case of fragrances
 - Natural aroma -- refined substances extracted by appropriate means from spices, medical herbs, fruits, leaves, stems, buds, roots, poultry, birds, meat, fish, eggs, milk, dairy products, yeast, and fermented products
 - (2) Artificial scents -- Compounded or manufactured scents that cannot be found naturally
- (1) Food additives put into a food in substantial or enough to perform the technical function of the food as a result of the use of the raw material or other ingredient in which the additive was used shall be included in the list of ingredients.
- (m) Food additives put into a food at levels lower than those necessary to achieve the technical function and processing aids are exempt from publication in the list of ingredients.
- (n) The exemption does not apply to food additives and processing aids listed in the section (e) of the hypersensitive ingredients.
- (o) If the amount of sodium in a food for special purposes is reduced or lessened, "less sodium" or "sodium reduced" or other similar meaning must be published with the name of the food.
- (p) Explanations of changes of general class names of ingredients to specific class names and food additives must be mentioned in accordance with the relevant organization's formulation.

Trade surplus under military regime, emphasizing "results" of import restrictions

Myanmar Armed Forces Commander-in-Chief Min Aung Hlaing told at a recent meeting of the highest decision-making body, the State Administration Council (SAC), that from when he took real power in a coup on February 2021 to this May, Myanmar had a trade surplus of US\$1.14 billion. He attributed this to the "results" of restricting imports of automobiles and other goods that he regarded as luxury items.

According to local media, Min Aung Hlaing pointed out that "trade deficits continued under the previous two administrations". It was continued trade deficit due to economic opening under the Thein Sein's administration since 2011 and Aung San Suu Kyi's administration since 2016, especially the country posted a deficit of more than US\$5 billion in 2015 and 2016.

According to the Ministry of Commerce under state military control, the trade balance was respectively surpluses US\$677 million in FY20 (October 2019-September 2020) and US\$673 million from October 2021 to June 10, 2022.

Myanmar has been facing a serious shortage of foreign currency since the coup, and the government is trying to suppress demand for foreign currency by restricting imports. In Yangon, the largest city in Myanmar, vehicles have disappeared from showrooms selling new cars, and some dealers believe that "for the time being, it will continue to be impossible to import new cars" (dealer source).

Myanmar Crisis "Hinders Intra-regional Trade Talks"

Malaysian Foreign Minister Saifuddin Abdullah point out in an interview of the country's state-run Bernama news agency that the crisis in Myanmar following last year's coup d'état has hampered the Association of Southeast Asian Nations (ASEAN) trade talks with its economic partners.

Foreign Minister Saifuddin respond to the interview of the news agency during the ASEAN-India foreign ministers' meeting in the Indian capital of New Delhi, which was held from June 15 to 17.

Although the ASEAN members are unanimous in their decision-making, Foreign Minister Saifuddin pointed out that consideration should be given to proceeding negotiations and agreements only in the nine ASEAN members except Myanmar. He stressed, "If ASEAN needs to sign a trade agreement with our partners, Myanmar must not hold ASEAN hostage and demand a ransom," he stressed.

Foreign Minister Saifuddin further asserted that "It is unfair to ASEAN that we cannot enhance trade with the European Union and other dialogue partners because one country does not want to sign and the nine (remaining) countries cannot sign."

Announcement on the initiation of the services of DICA Online Solution (DOSo)

(7 April 2022)

The online appointment system, DICA Online Solution (DOSo), implemented by the Directorate of Investment and Company Administration (DICA) was introduced to the local and foreign business communities at "Unboxing Investment Facilitation Toolkit 2022" ceremony on 1 April 2022.

The Directorate of Investment and Company Administration (DICA) hereby announces that the existing investors and potential investors of Myanmar can now be able to initiate effective and fruitful investment related discussions with DICA via online by utilizing the services of DOSo starting from 1 April 2022. Investors may attain the services of DOSo and request appointments with DICA via https://doso.dica.gov.mm/ and also through the DICA's official website www.dica.gov.mm.

For more detailed information, investors may contact the email addresses, info@dica.gov.mm, investmentpromotion@dica.gov.mm and phone number 01-658132.

The Directorate of Investment and Company Administration

Asian countries interested in sending Myanmar nationals legally

There appears to be growing interest among Asian countries in legally dispatching Myanmar workers under a bilateral agreement, the state-run newspaper Global New Light of Myanmar reported on June 9.

Myanmar has been legally dispatching workers to Japan, South Korea, Singapore, Malaysia, and Thailand. According to staffing agencies, Thailand and South Korea are expanding their recruitment quotas for Myanmar workers, while Brunei is considering hiring workers in the construction, lodging, and manufacturing industries.

In Thailand, the Ministry of Labor eased regulations effective from May 1. The fees borne by employers and workers, respectively, for foreign workers to work legally have been lowered. As a result, there are now 214,013 job openings for Myanmar nationals, and 156,637 workers are scheduled to be dispatched.

One worker who wanted to work in Thailand said, "The total cost to get a job at a factory that makes cables is 950,000 kyat. I will pay 450,000 kyat at the time of interview, and the remaining 500,000 kyat will be deducted from my salary over a period of five months." He was told that he could earn 400 baht per day, including overtime.

End.

Exports to Japan increased by 70% in May, the 5th month of positive growth due to strong sales of main products.

Japanese statistics show that exports from Myanmar to Japan continued to grow significantly in May. Exports exceeded those of the same month last year by nearly 70%, marking the fifth month of positive growth. This was due to generally strong sales not only of clothing, but also of agricultural products and other mainstay products. Experts believe that Myanmar's exports to Japan will remain strong for the time being, as demand for summer clothing is expanding in Japan.

Regarding trends in exports to Japan, Hajime Kitami, director of the Bangkok office of the Japan External Trade Organization (JETRO), noted that "Japan's total imports recorded high growth in May, up approximately 50% from the same month last year. About clothing, Shipments from major countries such as Cambodia, China, and Vietnam grew across the board," he noted. He analyzed that the increase in orders from Japan was behind the expansion of exports from Myanmar.

Yoma and FMI plan development in southern Tanindari

Myanmar conglomerate Yoma Strategic Holdings and First Myanmar Investment (FMI), a subsidiary of conglomerate Serge Pan and Associates Myanmar (SPA), is trying to develop a leisure development in the southern Tanintharyi District.

The project will invest 105 billion kyats (approximately 7.7 billion yen) to establish a leisure facility over a five-year period on an approximately 80-hectare site at "1199 Mountain," a tourist attraction in the Kotaung County District of the same jurisdiction. The project is called "Co-town Hill," and will include the construction of a 70-room hotel, 30 low-rise housing units (villas), and a museum. A cable car will also be built. An environmental impact assessment briefing was held for local residents this month in preparation for the project's implementation.

The planned construction site is located on both military and civilian land. According to residents who attended the briefing, there is some opposition in the local community.

Some border trade is in danger of being suspended, due to foreign currency restrictions.

Trade through the border with China and Thailand is in danger of being suspended due to foreign currency restrictions imposed by the Myanmar military.

The State Military had authorized direct settlement of border trade between China and Thailand with Myanmar's currency, the kyat, and the yuan and baht, respectively. However, it recently reversed this policy and ordered that settlement be made in US dollars. The rate should be the official rate set by the central bank, 1,850 kyat per US dollar.

A trader in Muse, Shan State in the northeast, a major center for border trade with China, explained that the market exchange rate is around 2,450 kyats to the US dollar, a large deviation from the official rate, and the more exports are made, the more losses are incurred. The more we export, the more we are in the red."

Another trader said, "Many traders are taking a wait-and-see attitude because exporting is not profitable. Exports could stop completely next week."

In addition, the decrease in demand has caused prices of agricultural products to fall, impoverishing farmers. In Shan State, the price of corn, which was 1,000 kyat per bis (about 1.6 kilograms), has dropped to 800 kyat per bis since the introduction of regulations on the US dollar by the national army.

Official rates for city money changers, also controlled by the national army

In Myanmar, the military-controlled government has begun to control the exchange rate. It appears that the government has mandated that money changers in the market trade at the official exchange rate set by the central bank. Locally, the prevailing exchange rate between the U.S. dollar and the local currency, the actual rate is about 30% below the official rate.

Citywide money changers in Yangon, the largest city with an official license, have been forced to trade at the official rate since the 22nd July. The person in charge said on July 26, "If we do not trade at the official rate, we will be ordered to close the business. The government is tightening its crackdown, making it difficult to trade at the prevailing rate, the official said. Almost no one sells U.S. dollars at the official rate," he said, "and the number of customers has dropped off. I hope to return to the prevailing rate in two weeks' time,"

The national army aims to stabilize the kyat market through forced currency exchange regulations and import restrictions. However, the kyat has been depreciating in black market transactions. One vendor quoted 2,410 kyat as the rate for buying US dollars as of July 26. Another money exchanger with a physical store displayed the official rate on the bulletin board on the same day, but quoted the same rate of 2,450 kyat with a calculator. The clerk confided that he could not issue a receipt due to the crackdown.

Export of pulses and others, letter of recommendation from industry association required.

To export of corn and pulses, it is now required to obtain a letter of recommendation from an industry association in Myanmar.

The Myanmar Pulses, Maize, and Sesame Traders' Association (MPBMSMA) said in a notice dated July 14. A letter of recommendation from the Association is required when applying for an export license for maize and pulses", it explained.

Effective July 1, the Ministry of Commerce requires traders to obtain an export license if they export corn and pulses by ship and settle in US dollars. The ministry's Trade Department has instructed to issue export licenses only after confirming a letter of recommendation from the MPBMSMA.

The MPBMSMA was asked on July 13 to fully scrutinize traders who wish to export by ship before issuing a letter of recommendation.

The MPBMSMA will be responsible for reviewing applications and supporting documents from traders and, if appropriate, issuing letters of recommendation and sending them to the Trade Bureau. The traders were advised not to load cargoes before obtaining export licenses, as it may take time to issue them.

[Myanmar Advancement Related Law]

Notification, etc. Related to Compulsory Exchange of Foreign Currency (4) No. 278

Here introduce Q7 – Q13 of the Q & A issued by the central bank regarding the forced exchange of foreign currencies.

- Q7: Pursuant to the notice, all foreign currency in the foreign currency account must also be converted to the local currency, kyat, within one business day. If there is a requirement for kyat, will the Central Bank of Myanmar provide liquidity?
 - A: For those from before April 3, 2022, it is not necessary to redeem within one business day and can be done in stages. The Central Bank can provide the required kyats. However, each requirement must be reported to the Central Bank.
- Q8: Can I place foreign currency deposits with a licensed dealer bank to repay a loan from a foreign bank in Yangon? Can I place foreign currency deposits with an authorized dealer bank to repay an offshore loan? In the case of syndicated loans, can I continue to repay foreign currency loans to participating banks?
 - A: Foreign currency on deposit prior to the date of issuance of the notice for repayment of the offshore loan is maintained. However, the bank must directly verify that payments are being made in accordance with the repayment schedule and loan agreement approved by the Central Bank. Repayments in foreign currency(when due) for offshore loans and syndicated loans must be submitted to the Foreign Exchange Control Board for approval.
- Q9: Does the Notice also cover government accounts? Does it also cover loans to be repaid to designated foreign countries according to the annual budget? Does it also cover embassy expenses?
 - A: All of these are not covered.
- Q10: Banks hold foreign currency based on inflows and outflows calculations. If the foreign currency has to be redeemed into kyats within one business day, the bank needs additional foreign currency (buy-and-hold). The bank cannot maintain this buy-and-hold for very long. If the approval from the Foreign Exchange Control Board is not received in time, what should the bank do with the buy-and-hold?
 - A: It will instructed later
- Q11: To repay a letter of credit (L/C) on time, can a customer purchase U.S. dollars in kyats? If so, what will the exchange rate be? If the offshore loan is not paid on time, the bank is in default. Can we pay service fees and non-resident clients' salaries owed to foreign service providers such as Refinitiv in foreign currency?

- A: Clients may purchase US dollars in kyat at the exchange rate of 1,850 kyat per US dollar as specified by the Central Bank. And the Bank will charge a service fee of 3 kyat per US dollar. If a bank wishes to remit funds to a designated foreign country, it must obtain approval from the Foreign Exchange Control Board. For offshore loans, the answer is the same as in Q8. Banks may pay foreign service providers, such as Refinitiv, in foreign currency. The notice does not cover non-resident clients of the bank.
- Q12: Does the minimum balance in a foreign currency account also have to be exchanged to Kyat?
 - A: The minimum balance does not have to be redeemed into Kyat.
- Q13: Can exporters pay for loans obtained for pre-shipment financing with newly deposited foreign currency?
 - A: This must be submitted to the Foreign Exchange Control Board.

End.

Easing of economic policy "after the problem is solved" by national military

Zaw Myint Tun, spokesperson for the State Administration Council (SAC), the highest decision-making body of the Myanmar Armed Forces, did not mention a timeframe, but he clarified that the government intends to ease fiscal and monetary policies including restrictions on foreign investment, depending on the situation. The National Military has been forcing the exchange of foreign currency into local currency and setting official exchange rates that deviate from the prevailing rates, but the exchange policy has backfired and negatively affected the economy. Eleven (electronic edition) reported on August 18.

At a regular press conference held in the capital city of Nay Pyi Taw on January 17, he answered questions from reporters on the tightening of foreign currency restrictions, trends in foreign currency reserves, and cooperation between the SAC and the central bank. Zaw Min Tun emphasized, "We do not intend to say that the government and the central bank are not at fault, but that we are working to solve the problem". He appealed that efforts are being made to resolve the current situation, in which increased reliance on imports has led to an outflow of foreign currency and a widening trade deficit.

Zaw Min Tun also point out that "As a central bank, we are implementing monetary policies that will support economic growth". He explained that the process of implementing regulations may affect some industries, but after a certain period, they will be eased in accordance with the policy.

The central bank had fixed the official rate against the U.S. dollar at 1,850 kyat per U.S. dollar since April; in August, it changed the official rate to 2,100 kyat and introduced a new provision that exporters must convert 65% of export payments into At the same time, a new provision was introduced requiring exporters to exchange 65% of export proceeds into the kyat. This is believed to be an attempt to increase export competitiveness through currency devaluation while at the same time securing foreign currency that is in short supply.

Yangon District approves four foreign investments

The Yangon Region's Investment Commission approved four investment projects by foreign companies at its meeting held on August 25, the state-run newspaper Global New Light of Myanmar (electronic edition) reported on August 28.

The total investment amount of the four projects is approximately USD5,143,000 (about 700 million yen). The projects include the manufacture of plastic bags and garments by the CMP (cutting, sewing, and packaging) contracting method, and are expected to employ a total of 2,369 people.

A total of over USD159 million in foreign investment was approved for the period January-June 2022. Investment countries include Asian countries as Japan, Hong Kong, China, Singapore, South Korea, Taiwan, Indonesia etc. The amount of investment from Japan was approximately USD 6million.

Expansion of saltwater shrimp farming, exports to Japan and other countries

The cultivation of saltwater prawns appears to be gaining momentum in the Tanintharyi District of southern Myanmar. The shrimp are exported to Japan, China, Thailand, and other countries, and there are moves among shrimp farmers to increase production, the state-run newspaper Global New Light of Myanmar reported on August 24.

Saltwater shrimp farming in Myanmar began in 2014 in the Mergui Islands. In addition to the islands of Katang, Masanpal, and Chagiau, saltwater shrimp farming is also taking place in Koh Taung, near the Thai border.

The shrimp farmer, Pyaepyotun, is the first company to increase shrimp production. The company currently farms saltwater shrimp at 64 locations in the archipelago, covering a total area of 168 hectares, and produces 250 to 300 tons per month. The company plans to conduct aquaculture in other areas in the future.

Sang Maung, president of Kain Jin Yo, point out that "There are many vacant lots for fish and shrimp farming. If the authorities take this into consideration, it will not only help protect rare fish species, but also increase income".

Myanmar National Army Reshuffles Cabinet, include Bank of Central Bank Governor, and Redeployment of Key Positions Centered on the Economy

The State Administration Council (SAC), the highest decision-making body of the Myanmar National Army, has reshuffled its cabinet and announced its lineup on August 19. More than a year and a half after the coup d'état last February, it was redeployment of key positions centered on economic ministers in the midst of economic turmoil. In central bank appointments, the former military governor and others were retired, and Deputy Governor Tintin Sue, who is knowledgeable about the financial industry, was promoted.

In the cabinet appointments, two ministers, Minister of Second Federal Government, Chin Naing and Minister of Immigration and Population, Kin Yee were retired. The four ministers were reassigned \diamondsuit Kang Zaw, who had served as Director General of the Board of Audit, change to Minister of Investment and External Economic Relations \diamondsuit Min Chainein, who had served as Minister of Labor, change to Minister of Immigration and Population \diamondsuit Phein Sang, who had served as Minister of Commerce, change to Minister of Labor \diamondsuit Aung Naing Oo, who had served as Minister of Investment and External Economic Relations, change to Minister of Commerce.

Kanzo had been served as Minister of National Planning and Economic Development for the Union Solidarity and Development Party (USDP), the national military-affiliated ruling party of the Thein Sein regime that came to power in 2011. Although former President Thein Sein had a military background, he opened up the economy following the transition to civilian rule, leading to the growth of Myanmar's economy.

Tin Oo, who was chairman of the Anti-Corruption Commission (ACC), succeeded Kanzo as director general of the Board of Audit. The new ACC Chairman was succeeded by Mr. Than Swe who head of the Federal Institute of Public Service, which is in charge of civil service personnel, and Mr. Maung Maung Naing who chairman of the Nay Pyi Taw Council was nominated the new head of the Federal Institute of Public Service. The new Chairman of the Nay Pyi Taw Council is Thin Oo Lwin.

The Central Bank's military color is fading.

In the area of finance and economics, the promotion of Mr. Thanh Tang Thanh Swe to the position of Central Bank Governor is significant. Mr. Thanh Nuynh, who had served as Central Bank president with a military background, and Mr. Win To, who also had a military background and had served as a Central Bank deputy governor, retired. Mr. Zo Minh Naing was nominated as the new deputy governor of the Central Bank. With the military color fading, expectations are high for Thanh Thanh Swe's ability to rebuild the country's troubled economy. The military is said to have stepped up its intervention in the Central Bank after the coup.

In April, the Central Bank introduced new regulations requiring that foreign currency in bank accounts be converted into the local currency chats. Details of the regulation, including the list of companies and institutions exempt from the regulation, changed two or three times, causing confusion among various industries, including foreign-invested companies. Although the new regulations are said to be aimed at stabilizing the chats while drawing in scarce foreign currency from the private sector, they have conversely caused the local currency to depreciate. Currently, the official rate is 2,100 kyat per US dollar, while the actual rate is around 2,900 kyat per US dollar.

The depreciation of the kyat has spurred a sharp rise in the prices of imported goods, resulting in price hikes and supply shortages for gasoline, diesel fuel, food products, pharmaceuticals, and other items.

Exporting Marine Products to Thailand, USD53.04 million in April – July

Myanmar exported 46,930 tons of fishery products to Thailand from April to July 2022 through three border checkpoints in the southern Tanintharyi Region. The export value was USD53.04 million, the state-run newspaper Global New Light of Myanmar reported on August 15.

The Myanmar Fisheries Federation (MFF) revealed the figures. Exports by border checkpoint were USD42 million for Kohtaung, USD10.14 million for Teekyi, and USD900,000 for Motaung.

Exports to Japan remained strong in June, with all major export items performing well.

Exports from Myanmar to Japan were favorable in June, too, nearly 50 % growth comparing to the same month of the previous year, Japanese statistics show. This is the sixth consecutive month of positive growth and the highest single month value in the past 10 years. This was due to strong sales across the board of major products such as clothing and agricultural goods. Experts believe that exports from Myanmar will continue to grow in July, citing increased demand for summer clothing in Japan.

According to Japan's Ministry of Finance Trade Statistics, total exports from Myanmar to the country in June totaled 10.067 billion yen, up 47.8% from the same month last year, marking the first time in the past 10 years that exports exceeded 10 billion yen in a single month in June.

Clothing and accessories, the mainstay of the market, increased 38.0% to 6,235.79 million yen, marking the sixth month in a row that the value exceeded the previous year's level. Men's apparel led the way with a 48.6% increase to 2,871.18 million yen. Men's clothing and accessories accounted for over 40% of total clothing and accessories for the first time since last November.

Sales of women's and infants' apparel, which had been growing at around twice the rate recently, were up 19.2% to 1,391.06 million yen.

Clothing sales were strong because consumer sentiment has been recovering due to the lifting of the "priority measures to prevent the spread of the new coronavirus," which were implemented in Japan as a measure to prevent the spread of the virus. Sales of clothing (growth rate on a comparable store basis) announced by the Japan Chain Stores Association, of which supermarkets are members, exceeded the previous year's level for the third consecutive month.

Supply from Myanmar's manufacturing sector also remained strong. According to S&P Global, a major U.S. financial information services firm, the manufacturing purchasing managers' index (PMI) for May, which determines export trends in June, was 49.9. The PMI remained close the milestone level of 50.

The report said that companies' willingness to increase production has not waned, and "employment," one of the items comprising the PMI, expanded.

Non-apparel also grew. Sesame and shrimp of agricultural and fisheries products stood out. They were strong, rising 3.7 times to ¥105.58 million and 63.7% to ¥428.99 million, respectively. This was the 12th consecutive month of growth for shrimp and the 8th consecutive month of positive growth for sesame.

Among non-apparel items, bags, mainly for travel, rose 95.7% to 470.73 million yen, shoes rose 52.8% to 929.9 million yen, and audio products such as speaker parts rose 80.9% to 176.04 million yen. Although smaller in value, jewelry rose 34.4% to 7.71 million yen, exceeding the previous year's level for the fourth consecutive month.

Imports from Japan also maintained an expansion trend. Total value was 6,421.7 million yen, up 50.5%. By item, textiles, which are used to make clothing, increased 2.3 times to 863.49 million yen, steel products increased 12 times to 202.26 million yen, and buses and trucks increased 27.5% to 349.66 million yen.

The trade balance was a surplus of 3.585 billion yen. The surplus narrowed by 1,513.12 million yen from the previous month.

First Half Cumulative was Increase 40%.

Total exports from Myanmar to Japan during the January-June period were cumulative 74,726.9 million yen, up 40.4% from the same period last year. Clothing and accessories increased 41.4% to 54,983.33 million yen, sesame increased 96.0% to 1,024.41 million yen, and shrimp increased 92.5% to 2,037.16 million yen.

Regarding trends in exports to Japan, Hajime Kitami, director of the Japan External Trade Organization (JETRO) Bangkok Office, noted that shipments from Bangladesh to Japan in June grew more than 30% over the same month last year. He expressed the view that "Myanmar may be experiencing a similar expansion of orders from Japan to countries that can supply products at low prices".

He also said that "the rainy season has ended early in this year and opportunities to go out seem to continue to increase," and that demand for clothing in Japan is increasing.

Regarding the outlook, he predicted that "exports from Myanmar to Japan will be strong only in July". The reason for this is that "opportunities for going out are still increasing," he said.

On the other hand, he noted, "It is difficult to make a long-term outlook". He cited the impact of the surge in new coronavirus infections in Japan and the heavy rains that have been continuing since mid-July.

End.

To support small and medium enterprises through local government = Commander-in-Chief

At a meeting held on September 27, Commander-in-Chief Min Aung Hlaing, who chairs the State Administration Council (SAC), the highest decision-making body of the Myanmar Armed Forces, indicated that he plans to support small and medium enterprises through local governments, the state-run newspaper Global New Light of Myanmar reported on September 28.

The Commander-in-Chief stressed the importance of supporting small and medium-sized enterprises, which account for over 90% of Myanmar's economy. He pointed out the need to establish industrial parks in all states and regions to boost the promotion of SMEs. He explained that the number of migrant workers can be reduced by creating jobs in each state and region. He also noted that 10 billion kyat (approximately 685 million yen), 8 billion kyat, and 5 billion kyat have been allocated from the federal budget, respectively, so that provincial and regional governments can support SMEs in their respective budgets.

He also announced that the Northwestern Chin State, the only one among all regions/provinces that does not have an industrial park, will be allocated a separate budget for the establishment of such a park.

The Commander-in-Chief stressed that the responsibility for developing the provincial and regional economies lies with the respective provincial and regional governments. He said, "I have instructed all provincial and regional prime ministers to use the allocated funds to promote small and medium-sized enterprises in order to increase revenue, stimulate the economy of their respective provinces and regions, and maintain their finances."

Social Security Fund to provide 77.5 billion kyat in a little over 8 years

The Ministry of Labor under the control of the Myanmar Armed Forces has announced that the Social Security Board (SSB) has paid out through a fund its administers to the social security beneficiary 1,648,175 people with 77,466 million kyats (about 5,328 million yen) in the period from April in 2014 to August in 2022, the state-run newspaper Global New Light of Myanmar reported on September 27.

In addition, 6.977 billion kyat was provided to 63,819 people as workers' compensation insurance.

The SSB currently has subscribers of 33,426 business offices in 116 county districts nationwide. The total number of subscribers is 1,064,269. Of these, 755,908 people in 13,268 businesses work in the Yangon region, which hosts the largest city.

The SSB is a framework for public-private partnerships and operates three general hospitals nationwide and clinics and others in 96 county districts.

Border trade of Muse, it is unaffected by city blockade in China

A lockdown (urban blockade) appears to be in place in the town of Wang ding, Ruili, Yunnan Province, China, which borders Muse, Shan State, northeastern Myanmar. This is due to the confirmation of a person infected with a new type of coronavirus. There is no affecting to the border trade upto now. The Global New Light of Myanmar, a state-run newspaper, reported on September 26

The lockdown is expected to last for five days, but the start date and scheduled lifting date are unknown. According to traders, border transactions are continuing as usual.

The border crossing between Kya town and Chinsan Cho in Muse is currently the main route for bilateral border trade, with approximately 100 trucks per day passing through the border checkpoints. Myanmar exports mainly agricultural products to China via the border.

Locally watermelon shipments are expected to begin soon. Traders are concerned that border trade will be affected if the infection spreads in Wang ding. They are watching China's policies.

Central Bank directs private banks to higher price purchase of seafarers' wages

Myanmar's central bank has instructed local private banks to purchase wages at the highest rate on the date of payment that received by Myanmar seafarers in foreign currency, the state-run newspaper Global New Light of Myanmar reported on September 14.

According to a statement by the Myanmar Seafarers' Federation (MSF), in late August the Central Bank instructed private banks to purchase foreign currency received as wages in the bank accounts of Myanmar seafarers at the highest rate on the date of receipt.

According to MSF, seafarers are allowed to sell foreign currency acquired as wages or remit it to foreign countries for the purpose of their children's education or medical care, if provided that they do so within 21 days of receipt. However, they must obtain approval from the authorities through their bank.

According to the state-run newspaper, MSF explained to the seafarers that "they can only exchange foreign currency into the currency kyat at a higher exchange rate if it is deposited in an account at a domestic bank". The Central Bank of Myanmar currently sets the official rate at 2,100 kyat (about ¥144) per U.S. dollar, but

the prevailing rate for the kyat has fallen to 3,300 kyat.

JICA loan for farmers, 900 million kyats in six months

The Japan International Cooperation Agency (JICA) provided loans totaling 967 million kyats (about 65 million yen) to 18 farmers in Myanmar during the six-month period from April to September, the Global New Light of Myanmar, a state-run newspaper reported on September 23

JICA plans to provide a total of 18 billion kyat in loans to farmers in the country as the purchase of farm machinery in fiscal 2022 (April 2022 to March 2023) by a mechanism called Two-Step Loan.

Under the Two-Step Loan scheme, JICA provides the funds and executes the loan through over two financial institutions. The implementation period is 40 years until 2057. Total funds are estimated at 200 billion kyats. So far, 5,500 farmers in 187 townships nationwide have used this loan. The repayment period is 3 or 5 years, and the interest rate is 5%.

Exports to Japan more than doubled in July. Strong sales of major products, plus 7th month

Exports from Myanmar to Japan continue to be strong. According to Japanese statistics, total exports to Japan in July more than doubled over the same month last year and entered the seventh month of positive growth. As in the previous month, major products such as clothing and agricultural products were generally strong. Experts expect exports from Myanmar to exceed the previous year's level in August as well, as cargo movement of clothing continues to be brisk in Japan.

According to Japan's Ministry of Finance trade statistics, total exports from Myanmar to the country in July totaled 12,441.04 million yen, 2.2 times the value of the same month last year. As a single month value for the same month, it returned to the level of 2019 before the spread of the new coronavirus infection.

The driving force was mainstay clothing and accessories, which accounted for more than 70% of the total, at 8,318.4 million yen, a 2.6-fold increase YoY. Sales exceeded the previous year's level for the seventh consecutive month. Sales of women's and infants' clothing tripled to 2,265.3 million yen, while sales of men's clothing also 2.3 fold to 3,207.9 million yen.

Behind this trend was the lifting of th "priority measures to prevent the spread of the new coronavirus," which was implemented in Japan as a measure to prevent the spread of the virus. In July, clothing sales of Japan Department Stores Association (JDSA) member companies increased for the fifth consecutive month. Sales of clothing (growth rate based on existing stores) announced by the Japan Chain Stores Association, of which supermarkets nationwide are members, fell below the previous year's level for the first time in four months, but the decline was limited to a slight 0.1% drop on a comparable store basis.

Items without clothing were also strong across the board. Bags increased 4.2 times to 522.83 million yen, sesame tripled to 11.21 million yen, shrimp increased 45.9% to 554.64 million yen, and shoes increased 32.2% to 934.73 million yen.

Imports from Japan also continued to exceed the previous year's level. Total value increased 33.9% to 4,068.38 million yen. Among major items, textiles, which are used as materials for clothing, increased 80.8% to 718.56 million yen. Steel products and buses and trucks, which had performed well in the previous month, all sank below the surface.

The trade balance showed a surplus of 8,372.65 million yen. The surplus more than tripled.

Total exports from Myanmar to Japan during the January-July period were 87,174.92 million yen, up 48.2% from the same period last year. The positive trend has been increasing with each passing month, and the total value exceeded 80 billion yen three months earlier than the previous year.

By item, clothing and accessories increased 50.6% to 63,306.62 million yen, bags increased 84.3% to 3,179.34 million yen, shoes increased 18.9% to 5,674.73 million yen, and shrimp increased 80.2% to 2,591.8 million yen.

Outstanding Growth in Myanmar

Hajime Kitami, Director of the Japan External Trade Organization (JETRO) Bangkok Office, commenting on July exports to Japan, said that the clothing market in Japan "saw a boost in demand for clothing due to increased opportunities to go outside and the extremely hot weather that accompanied the easing of the new anti-Corona measures".

Mr. Kitami also pointed out that "all of the major producers of clothing for Japan increased their exports to Japan in July over the previous year, with Myanmar standing out in terms of growth rate". He also noted that "Myanmar's products may be undervalued due to the depreciation of the local currency since the military coup that took place in February last year".

Myanmar's exchange rate for the local currency, the kyat, has continued to fall. The official rate set by the central bank is 2,100 kyat per US dollar, down 10% since early August. The black market rate, which is considered an indicator of real transactions, temporarily hit the 4,000-kyat level, down nearly 30% since late August.

And also, as for the outlook for Myanmar's exports to Japan, the forecast is that "they will continue to be strong in August". "Clothing continues to sell well in Japan. Imports of textiles, the raw material for clothing, from Japan also continue to grow", he explained.

Number of Vessels Entering and Leaving Yangon Increases, also Maritime Trade Volume

More cargo ships are entering and leaving Yangon Port, the country's largest port, this month in Myanmar, increasing the volume of trade by sea. The state-run newspaper, Global New Light Of Myanmar reported on October 18.

A total of 23 vessels, including 2 container ships, 15 general cargo ships, five tankers and one palm oil carrier arrived at Yangon Port, which including Thilawa Port at the south part on October 17. It is estimated that 55% of the vessels which scheduled to be arrived at the port in this month had been arrived until the same day.

The cargo vessels at anchorage are likely to have brought fertilizer, cement, heavy machinery, fuel oil and food oil. Myanmar also imports textiles, pharmaceuticals, medical equipment, food products, electronics, machinery, construction materials and plastics.

Both container vessels and general cargo vessels are used for exports. Myanmar currently exports agricultural products to Southeast Asian and European countries with a total of 15 vessels, including three and four cargo vessels for rice and corn. Container vessels are used to ship the clothing, fisheries, forest products, rubber and some agricultural products.

Sanitary certification of imported products, electronic application to begin in November.

The Food and Drug Administration (FDA) of Myanmar's Ministry of Health announced on November 17 that it will begin accepting applications for sanitary certificates (IHC), which are required for importing food products, through the electronic submission (E-Submission) system from November. The Global New Light of Myanmar, a state-run newspaper, reported on October 20.

In order to obtain IHC, it was instructed to obtain an application form from the FDA and submit it along with the necessary documents. Required documents include import permits by products, health certificates or test results issued by relevant country authorities, etc. Then, after the cargo arrives, the FDA inspects the food samples. If the documentation is incomplete or the inspection fails, the applicant is notified of the rejection. If the application is not incomplete and passes the inspection, they will issue an IHC.

Since it takes up to 2 days to receive the documents and samples, and up to 25 days for testing, the FDA will takes from 14 to 31 days from the acceptance of the application to issue the IHC

Rice exports to Bangladesh to soon exceed 20,000 tons

Myanmar's military junta has signed a rice sales contract with the Bangladesh government in this year, and on the first step, over 20,000 tons of rice will be shipped to the country shortly. The Global New Light of Myanmar, a state-run newspaper reported on October 14.

The contract is Myanmar will ship 250,000 tons of long grain rice (indica rice) to Bangladesh. Based on this contract, Myanmar will first transport 21,300 tons. The ship for this shipment had been secured and is currently docked at a port in Yangon, the largest city in Myanmar.

The Myanmar Rice Federation (MRF), an industry group, will handle the shipment.

The two countries signed another rice trade agreement in 2017. It is Myanmar will sell 250,000 tons of white rice and 50,000 tons of parboiled rice (rice that has been steamed and processed in the husked state) to Bangladesh. The contract was for five years, from September of that year to September 2022.

Toyota plant operation, delay 18 months due to political upheaval and Corona

Toyota Motor Corporation announced on October 12 that it began operations at its new plant in Myanmar in September; the plant was scheduled to start operations in February 2021, but the local coup and the new corona virus disaster caused a delay of about a year and a half. The company began production in small quantities of one to two vehicles per day as the situation has become relatively stable.

The new plant will be Toyota's first vehicle assembling plant in Myanmar, and will be located in the Thilawa Special Economic Zone near Yangon, the country's largest city. The construction plan was announced in May 2019 as an anticipation of steady growth in demand for new vehicles in Myanmar. However, the start of production was postponed due to a coup d'état by the national military on February 1, 2021.

When the plan was announced, about 130 workers will be newly employed and they have the capacity to products 2,500 units of the pickup truck "Hilux" per year. The investment was expected to be approximately US\$52.6 million.

Toyota commented, "We believe that we will be able to fulfill our initial aspirations of contributing to Myanmar's industrial development and the development of manufacturing human resources through local production, as well as protecting the lives of our employees and their families".

1,850 domestic food exporters registered with China Customs

Myanmar's Ministry of Commerce has revealed that the number of applications for registration with the General Administration of Customs of China (GACC) by food exporters in the country has reached 1,850. The state-run newspaper Global New Light of Myanmar reported on October 6.

From December 2021 to September 2022, 1,022 companies submitted a total of 1,850 registration applications.

The GACC required Myanmar exporters to register with the department in 2021. The targeted companies handle 18 commodities, including meat products, marine products, dairy products, edible oils, frozen foods, dried fruits, and coffee beans. Registration is done through the relevant Myanmar authorities.

In December 2021, a state-run newspaper reported that vendors who have not completed registration with the GACC will not be allowed to export to China after January 1, 2022.

End.

Ministry of Commerce introduces new rules for opening motorcycle exhibition halls.

The Ministry of Commerce, under the control of Myanmar's military, recently announced new rules for opening showrooms to sell motorcycles. The new regulations require private operators wishing to open showrooms to deposit 50 million kyat in a bank approved by the central bank, the state-run newspaper Global New Light of Myanmar (electronic edition) reported on November 18.

The new regulations on opening motorcycle showrooms were announced by the Ministry of Commerce on November 11 and it is consisted of 18 items, in addition to the deposit, the company must be registered with the Department of Investment and Company Administration (DICA), the secretariat of the Myanmar Investment Commission (MIC), and must be designated as an authorized sales agent.

The regulations also require that the imported motorcycles must be new, that the showroom area be at least 5,000 square feet (approximately 465 square meters), that repair facilities be provided, and that spare parts be offered.

Muse border, 40 trucks to export watermelons and other products

It appears that 40 trucks loads of Myanmar's watermelons and muskmelons are being exported per day by the border trade with China in Muse, Shan State in northeastern Myanmar, the state-run newspaper Global New Light of Myanmar reported on November 16.

Saikin Maung of the fruit wholesale center in Muse noted, "The fruit export season has started but trading prices are lower than last year due to China's waterfront measures against the new coronavirus, including lockdowns (urban blockades)." He also indicated that export costs have risen and torment traders.

Watermelon export costs have soared to 5-6.5 million kyats (approx. 330,000-430,000 yen) per truck. Transportation costs are 3-4 million kyats on the Myanmar side and 2-2.5 million kyats on the Chinese side. The export cost of muskmelons is 500,000-800,000 kyats higher than that of watermelons.

China closed all border checkpoints with Myanmar in 2021 as a waterfront measure against the new corona. Only the Chin San Cho checkpoint has been open since November 26 of the same year, and operations have resumed on a trial basis.

Currently, 70 trucks per day from Myanmar and 30 trucks per day from China pass through the Chin San Cho checkpoint. Myanmar exports rice, crushed rice, chili pepper and other agricultural products, and fishery products. From China, Myanmar imports construction materials, home appliances, daily necessities and industrial materials.

Directorate of Investment and Company Administration

Announcement for Recommendation of Foreigners' Visa Extension

- 1. A company which applies recommendation to extend foreigners' visa must be a company whose registration period has been completed for 1 year.
- 2. Suspended and Struck-off companies due to failure to comply with Myanmar Companies Law (2017) will continue to accept recommendation for visa extension only after 1-year compliance.
- 3. Foreigners from the company who wish to obtain recommendation for visa extension must apply at least 90 to 120 days prior to their expiration. The foreigner's passport must be valid for at least 6 months.
- 4. In order to apply recommendation for foreigner's visa extension, the company must be able to present the following documents-
- (a) Updated Company Extract Form,
- (b) Evidence of company's current operations, (License/Permit/Evidence from Government Agency, Business Contract with Other Related Organization (if Any))
- (c) Proclamation of the company's board of directors regarding the foreigner
- (d) Company must submit tax returns or audit reports for fiscal years 2020- 2021 and fiscal years 2021-2022 and fiscal years 2022-2023, or proof of prior income tax payments (if applicable),
- (e) CV Form of the relevant foreigner including a prominent (2"x 1.5") size photograph taken within 6 months, education, experiences and permanent foreign address (domestic/local address) (See attached form for full details)
- (f) Terms of Reference (TORs)/Job description for the foreign employee's position and duties in the company,
- (g) Employment contract and foreigner's education certificate/ qualifications
- (h) To inform DICA in case of change of local address of the foreigner
- (i) If a foreigner submits a second extension, evidence of his income tax payment for the periods he/ she has served must be presented.
- (j) Number of employees in company (foreigner/citizen) including name, passport number/national registration card number, phone number
- (k) Evidence of kinship must be attached for family members (wife/husband/son/daughter) of relevant foreigner.
- 5. Companies operating under Myanmar Investment Commission Permit/ Endorsement must apply only at MOVAS (http://movas.dica.gov.mm/). If you apply for an online visa extension recommendation at https://visaonline.dica.gov.mm/, it will not be accepted.
- 6. This announcement is effective from 14-9-2022.
- (Although the Directorate of Investment and Company Administration conducts necessary verification on the submitted visa case, the application can be rejected unless it conforms to the existing policies.)

Curriculum Vitae

No Personal Detail

- 1 Incumbent Company Name Including Updated Company Extract Form –
- 2 Name Mr/ Ms/ Mrs
- 3 Passport (Old and New) –
- 4 Nationality –
- 5 Designation e.g. Marketing Manager
- 6 Skill/Education –
- 7 TOR (Terms of Reference)/ Job Descriptions –
- 8 Employment History –
- 9 E-Mail –
- 10 Contact Number Mobile Office -
- 11 Address Domestic/Local Address Foreign Permanent Address -
- 12 Information for Family Members (Marriage Certificate & Birth Certificate) -(Spouse/ Immediate Family members)
- 13 Have you applied Business Visa before?
- -2"x 1.5" -Prominent Recent Photo within 6 months

Directorate of Investment and Company Administration

Amendment regarding the announcement issued on September 14, 2022

- 1. On September 14, 2022, an announcement was issued regarding the requirements for obtaining visa extension recommendation for foreigners.
- 2. Paragraph 3 of that announcement states that foreigners who wish to apply recommendation for visa extension from the company must apply at least 90 to 120 days before the expiration of their visa. Instead of that statement, "Foreigners wish to apply recommendation for visa extension from the company must apply at least 60 days in advance before the expiration of their visa" has been amended and announced.

Laws Related to Advancement Myanmar | Movement of Laws and Regulations in 2022

1. Number of laws enacted

In 2022, 48 laws were promulgated by the State Administration Council (SAC). After the translation to civilian rule in 2011, 24 in 2012, 37 in 2013, 57 in 2014, 74 in 2015, 44 in 2016, 29 in 2017, 36 in 2018, 40 in 2019, 18 in 2020 and 63 in 2021 laws passed.

Although the number of laws enacted is large, there have been few significant business-related legal amendments, and many of them are aimed at cracking down on democracies or strengthening the monitoring of financial flows in order to get off the black list of Financial Action Task Force (FATF).

In addition, foreign currency regulations, which seem to have had the greatest impact on business in the 22 years of laws and regulations, are not regulated by law, but by notifications and other subordinate laws and regulations. In addition, import restrictions have been tightened, the list of items requiring import/export licenses has been frequently changed, and imports of automobiles have been suspended.

2. Important laws and regulations

Among the laws enacted in 2022, the tax law is one of the laws that will have a particularly large impact on business in general. As of January 6, 2022 issued the Federal Tax Law Amendment Act of 2009, imposing a tax of 20,000 kyat (approximately 1,250 yen) per SIM card in addition to commercial tax on the sale of SIM cards and other transactions. In addition, the income tax base income was changed.

Since the beginning of 2022, the Central Bank has issued a number of notifications regarding foreign currency regulations, the main contents of which are as follows.

On April 3, the Central Bank issued a notice on compulsory convertibility of foreign currencies.

On April 21, the Central Bank issued a notice excluding Special Economic Zone (SEZ) companies and Myanmar Investment Commission (MIC) companies from mandatory convertibility.

On May 20, the Foreign Exchange Supervisory Commission issued a notice of exceptions for Official Development Assistance (ODA) projects and corresponding companies.

On June 7, at a meeting held by the Central Bank with Japanese and other banks, the Central Bank orally notified that companies registered with the Directorate General of Investment Enterprises (DICA) with foreign capital investment of 10% or more were exempt from the compulsory convertibility measures.

On July 6, remittances out of the country by exempt enterprises were required to be approved by the Foreign Exchange Supervisory Commission, regardless of whether or not they had foreign currency deposits.

On July 13, the Central Bank issued a notice that DICA-registered enterprises with foreign investment of 10% or more are again un-exempt. In addition, a notice was issued suspending repayment of principal and interest to foreign countries.

On July 15, the Central Bank raised the mandatory convertibility from 10% to 35% or more of the capital contribution of foreign-invested enterprises.

On August 5, a notice from the Central Bank changed the official exchange rate of 1,850 kyat per US dollar which had been fixed since April to 2,100 kyat per US dollar. And introduced a new regulation must have requiring exporters to convert 65% of their export payments into kyat, effective August 5.

On August 15 and 16, the CBM announced a partial relaxation of foreign currency restrictions, allowing the following treatment for deposits in foreign currency by enterprises exempted from the April 3 notification (MIC, SEZ and ODA enterprises).

- (a) In an exempted entity, received foreign currency (i) use, or (ii) transfer it to a third party, or (iii) convert it into kyats.
- (b) "Other than" the exempted entity, the foreign currency received from the exempted entity (i) use, or (ii) if not used, convert the foreign currency into kyats within 30 days of receipt.
- (c) Cross-border transactions in foreign currency by exempted enterprises and other enterprises, etc., with prior approval from the Foreign Exchange Surveillance Commission.

On June 23, the Ministry of Labor, Immigration Management and Population issued instructions regarding shift work procedures and overtime in factories and workshops.

In September, DICA issued an announcement regarding visa extensions for foreign nationals. This is related to the recent problems that have arisen in the procedures for stay permit extension, as stated in the Announcement, the procedures have been tightened, such as the need to apply 90 to 120 days prior to the expiration date and as one year must have passed since the date of registration.

On October 21, the FATF, an international standard-setting body for combating money laundering and terrorist financing, announced the addition of Myanmar to its blacklist (high-risk countries and regions for which action is requested). Although this action will not directly prevent foreign currency transactions, in some cases it may take longer than before, require additional explanations and materials, or result in cases where procedures are denied.

SAC is focusing on the promotion of electric vehicles (EVs), and the Ministry of Commerce issued Notice No. 62 of 2022 on November 11 regarding import conditions for electric vehicles. Certain tax exemptions have also been issued.

On October 28, the Organization Registration Law was promulgated. The law requires domestic and foreign organizations engaged in various social activities in Myanmar to obtain a registration certificate issued by the government. This law replaces "the Organization Registration Act" in 2014, which had similar provisions, but the prohibitions are more stringent, prohibiting all registered organizations from having direct or indirect contact with (1) organizations engaged in anti-government armed struggle, (2) "terrorist organizations", or (3) outlawed organizations.

On November 9, Directive No. 1/2022 requiring the registration of real estate agents was issued by the real estate and precious metals dealers regulatory authority under the Ministry of Interior's Central Committee for Anti-Money Laundering.

3. Practical issues

Foreign currency restrictions have created obstacles to imports from foreign countries, which has hindered business for some companies. In addition, even if profits are earned in Myanmar, the question arises as to how to distribute them to the foreign parent company. Furthermore, the gap between the official rate and the prevailing rate has caused many companies to bother about how to resolve the problem.

With the prolonged military rule, there has also been an increase in the number of consultations on what points to keep in mind when conducting business in Myanmar from the perspective of business and human rights.

Currently, not many Japanese companies have decided to withdraw, although some have scaled back or suspended their activities. However, if withdraw, they will have to deal with the time-consuming liquidation process and the issue of how to return funds in their Myanmar accounts to their shareholders.

Daring to mention some bright spots, the number of business travelers has increased since the ban on landing international passenger flights was lifted at the beginning of 2022. In addition, there are some of companies that hiring more people because they are able to hire talented people at substantially lower wages due to the low kyat prices.

4. Points to note, and outlook for 2022

As mentioned above, few laws and regulations had a positive impact on the business environment due to affecting of the coup also continued in 2022, and the same situation is likely to continue in 2023. Since it is possible that unpredictable events may occur in the future, it is necessary to flexibly manage business operations according to the situation at the time each time a new situation arises. In Myanmar, laws and regulations have conventionally been announced suddenly, but under the military regime, they are even less predictable. It should be noted that the risk of unknowingly violating laws and regulations by being unaware of new laws and regulations also exists. In addition, given the frequent changes in regulations, it is important to execute transactions when they can be executed and not procrastinate.

In 2023, attention will be paid to trends in the general election scheduled to be held by August 1.

JICA Loan, Designates 11 Banks as Intermediary Financial Institutions

Myanmar's Small and Medium Enterprise Development Coordination Committee recently designated 11 domestic banks as intermediary financial institutions (PFI) of two-step loan program for the Japan International Cooperation Agency's (JICA) for small and micro enterprises, reported by the Global New Light of Myanmar, a state-run newspaper on December 16.

The PFI designated 11 banks are Myanmar Citizens Bank (MCB), Kambosa (KBZ) Bank, state-run Myanmar Economic Bank (MEB), Cooperative Bank (CB), Ayeyarwady Bank (AYA Bank), First Private Bank (FPB), United Amara Bank (UAB), Nay Pyi Taw Development Bank, Small and Medium Enterprise Development Bank (SMEDB), Myanmar Apex Bank (MAB), and Myanmar Oriental Bank (MOB).

The maximum loan amount is 50 million kyat (approximately 3.3 million yen) with a repayment period of 1 to 5 years. Interest rates range from 5.5% to 10% per year and seem to vary depending on the availability of collateral.

As of November, 2,045 people have used the service. The total loan amount is 364,534.18 million kyats.

In addition, as of the same month, there were 342 users of the Myanmar Economic Bank's loans to small and micro enterprises, with a total loan amount of 25,977 million kyats. The maximum loan amount is 300 million kyat, with a repayment period of up to five years. Interest rates are set at 6.5% to 11.5%.

The SME Development Bank (formerly SMIDB) had 456 SME loan users with a total loan amount of 20.638 billion kyat.

End.

Announcement from DICA for company laws

The Government of the Republic of the Union of Myanmar Ministry of Investment and Foreign Economic Relations Directorate of Investment and Company Administration

Directive No. 7 / 2023

(12), Waning of Pyatho 1384 M.E.

(17, January 2023)

Announcement for nominee directors and members as nominee shareholders are not allowed under Myanmar Companies Law

In exercise of the power conferred under the Section 462 (a)(ii) of the Myanmar Companies Law (hereinafter the Law), the Directorate of Investment and Company Administration hereby announces that it will not allow nominee directors and nominee shareholders.

- 1. In Division (18) of the Myanmar Companies Law, regardless of whether the position of director is appointed to the rights and responsibilities of directors, those who direct or control the affairs of the company are defined as directors, and are allowed to appoint as alternate directors under the Law. Hence, the appointment of nominee directors that is not consistent with the law, is not allowed.
- The Myanmar Companies Law prescribes that any member of the company who owned the shares needs to be submitted for registration to the Company Registrar and also to be registered in the register of members kept by the company.
- 3. At present, it has been observed that some countries allow the registration of nominee shareholders and practice a system in which the be beneficial owner is separately disclosed.
- 4. It is hereby announced that Myanmar does not allow the registration of such nominee shareholders and considers, as the beneficial owner, only the person/legal entity who are registered at the Registrar and also involved in the register of members kept by the company. According to the Section 421 of the Myanmar Companies Law, everyone can have access to beneficial owner information of companies with the prescribed fee.
- 5. This directive shall come into effect from the date of its announcement.

(Thant Sin Lwin)
Director General

Directorate of Investment and Company administration

The first friendship bridge on the Burma-Thailand border reopens on January 12 for the first time in three years.

The border checkpoint at the First Friendship Bridge connecting Myawaddy in Myanmar's eastern Kayin (Karen) State and Mae Sot in Thailand's northwestern Tak Province is expected to resume operations on January 12. Local newspapers reported the reopening of the bridge for the first time in three years since it was closed in February 2020 due to the outbreak of a new type of coronavirus infection.

A ceremony is likely to be held in Mesotho County on the 12th to commemorate the reopening of traffic. The first friendship bridge is mainly used for traffic between Thai and Myanmar people.

The second friendship bridge between Myawaddy and Mae Sot was also opened in 19 years, but it is used only for trade in goods and for Myanmar temporary workers to enter Thailand.

Preparations for the reopening of the First Friendship Bridge began last May when officials from both countries cleaned the bridge. However, the reopening of the bridge was postponed due to heightened tensions, including an explosion and a gun battle near the bridge in October. This time, at the end of last year, officials from Kayin State and Tak Province held talks again and made preparation for the reopening.

26 insurance companies including foreign companies, operating for business

= Regulatory Commission

According to the Insurance Business Regulatory Board of Myanmar (IBRB), 26 insurance companies, including five foreign life insurance companies, operate in Myanmar and sell 39 kinds of insurance products. The English-language division of state-run broadcaster MRTV, MITV reported.

In Myanmar, the state-run insurance company Myanma Insurance was established in 1952, and for many years it was the only company allowed to operate.

Subsequently, the Insurance Business Law was enacted in 1996 and the detailed regulations of the Law in 1997, and local private companies were allowed to enter the market in 2012.

The minimum capital requirements for insurance companies are 4 billion kyat (approximately 248 million yen) for non-life insurance and 600 million kyat for life insurance.

Some trade items with China can be settled in yuan and dollars.

The Ministry of Commerce, under the control of the Myanmar Armed Forces, recently explained that some border trade with China is allowed to be settled in either renminbi or US dollars for some items, the state-run newspaper Global New Light of Myanmar reported on January 16.

According to the ministry's announcement, trade in beans, corn, sesame and peanuts is allowed to be settled in RMB in addition to US dollars. Settlement for other agricultural products and fishery products such as crabs, eels, etc is limited to RMB.

At the Chinese border in Muse, Shan State, north eastern Myanmar, 541 truckloads of exports and 114 truckloads of imports were reportedly traded during the three-day period from January 1 to 3. The main export items from Myanmar to China were rice, crushed rice, sesame, watermelon, sugarcane, crab and eel, and import items included vehicles, heavy machinery, telephones, communication equipment, apples, oranges, motorcycle parts, raw materials for plastic products, and light bulbs.

The 105-mile trade zone in Muse issued 98 certificates of origin "Form E" for trade between the Association of Southeast Asian Nations (ASEAN) and China during the same period. Certificates of origin can be applied for through the online system "Myanmar Trade Net 2.0" or at border checkpoints.

Exported over 1,217 tons of domestic honey from April to December

Myanmar exported 1,217.18 tons of honey from the beginning of FY2022 (April 2022-March 2023) through December. The export value was over US\$1.825 million (some JPY236 million). The beekeeping division under the Department of Animal Husbandry and Veterinary Medicine of the Ministry of Agriculture, Livestock and Irrigation revealed this information, which was reported by the state-run newspaper Global New Light of Myanmar on January 13.

918.48 tons or three-fourths of the total were destined for Japan with exports valued at US\$1,377,720. Another 182.48 tons (US\$273,720) were to Singapore, 42.78 tons (US\$64,170) to Korea, 40 tons (US\$60,000) to the United States, and 33.44 tons (US\$50,160) to Taiwan.

Beekeeping is mainly conducted in the northwestern Zagain region, the north-central Mandalay region, and the central Magway region, with both state-owned and private apiaries.

Approximately 2 million acres (810,000 hectares) of farmland is used as nectar sources, with 11% of the sunflower growing area designated as nectar sources this year.

The maximum amount of honey that can be collected from a single hive is estimated to be 70 pounds (about 32 kilograms), and the annual national production is about 7,000 tons. Of this, approximately 2,600 tons are exported each year.

Yangon region, investments in 2022 was 53

According to the Yangon Regional Government, which oversees Myanmar's largest city, investments in the region by domestic and foreign companies in the period from January to the third week of December 2022 for some 1 year were 53 and more than 35,000 jobs were created. The state-run newspaper Global New Light of Myanmar reported on January 9.

The number of investments by local companies was 12, with a total investment of 19.396 billion kyats (approximately 1.235 billion yen). Foreign companies made 41 investments totaling US\$74.462 billion (approximately 9.79 trillion yen). Domestic and foreign investment created a total of 35,792 jobs.

Businesses operated by local companies include the production of sewing products, bags, footwear, instant foods, and processed fish and shrimp products using the contracted CMP (cutting, sewing, and packaging) method.

CMP plants need corporate accounts and monitored foreign currency flows.

Companies in Myanmar that produce sewing and other products on a contract CMP (cut, sew, and package) basis are being asked to open corporate accounts. The military, which came to power in a coup in February 2021, is trying to control foreign currency transactions and aims to monitor the flow of funds with foreign companies by having them open corporate accounts. MITV, the English-language division of state-run MRTV, reported on January 19.

According to MITV, there are 732 CMP contract factories in operation in the country. Of these, 362 are engaged in foreign currency transactions, while 284 are only trading in local currency kyats.

Nyung Win, Undersecretary of the Ministry of Labor, said, "Some companies are operating without opening corporate accounts or foreign currency accounts.

Each company must open a corporate account, which will allow us to supervise the flow of funds," he said. He explained that companies, especially those that procure raw materials from overseas, must conduct transactions through regular channels through banks. If they do not follow the instructions, legal action will be taken, he said.

According to the Myanmar Garment Manufacturers Association (MGMA), the number of member factories in operation as of December last year was 543, up 5% from the same month last year. Of these, the largest number, 300, were Chinese-owned, up 17%. Myanmar-based companies increased by 4% to 71, Korean-based companies by 4% to 56, Japanese-based companies by 13% to 18, and supporting industries by 26% to 48.

In the CMP contracting method, in addition to sewn products, some companies are also involved in bags, footwear, instant foods, and processed fish and shrimp products.

End.

Standard Operating Procedures for Bonded Warehouses

This introduces the payment of fees related to tax returns.

- 1. Payment of fees pertaining to customs declarations
 - (1) Payment of fees for customs declaration shall be made by deposit.
 - (2) The customs department shall issue a specific order as to when the payment of declaration fees shall be accepted by direct payment (cash or payment order) or other means.
 - (3) If the customs secretariat office operating the bonded warehouse is unable to accept the deposit payment, it shall be paid to the Finance and Inspection Division of the customs department (head office).
- 2. Items related to the warehouses to be conducted by each division
- (1) Each division shall be implemented as follows
- (a) The Policy Procedure Division shall negotiate business and issue notices of amendments and proposals for bonded warehouse procedures.
- (b) The Investigation and Illegal Trade Countermeasures Operations Division shall review the case files sent by the Bonded Warehouse Division and confirm and respond to the permitting, revocation, or closure of bonded warehouse licenses.
- (c) The Management and Human Resources Division will issue a notice regarding the formation of an on-site inspection team, and shall issue notices of granting, abolishing, closing, or revoking bonded warehouse licenses for case files sent by the Bonded Warehouse Division for granting bonded warehouse licenses, approving extensions of license duration, and abolishing or revoking licenses.
- (d) The Finance and Inspection Division shall collect the bond, license fee and annual fee for bonded warehouses and shall collect filing fees and taxes. It shall also provide notice of any changes in the procedures for collecting deposits, license fees, annual fees, and taxes.
- (e) The Support Transportation Division shall receive and auction prohibited and detained goods pertaining to bonded warehouses in accordance with the provisions of the Customs law.
- (f) For reporting on bonded warehouse declarations, the departments of the Import and Export Supervision Division shall cooperate with each other upon request of the workplace. The personnel of the Yangon Region Bonded Warehouse Division and the personnel of the bonded warehouse inspectors shall be coordinated. The performance of duties of other regional customs offices shall be carried out in cooperation with the State Office Supervision Division. It shall consult with the Myanmar Automated Cargo Customs Management System Division and negotiate with bonded warehouse license holders to upgrade the warehouse management system in accordance with business requirements.
- (g) The Myanmar Automated Cargo Customs Clearance Management System Division shall review the case files sent by the Bonded Warehouse Division to scrutinize the bonded warehouse licenses granted, abolished/revoked, and closed, and reply them. For bonded warehouses, the Division shall also stipulate the procedures for using the MACCS system, issue notices, specify the necessary criteria, and set up master tables. The establishment of a management system for warehouses in accordance with business requirements shall be discussed with the Bonded Warehouse Section of the Import/Export Supervision Division and negotiated with the bonded warehouse license holder.
- (h) The Post Audit and Trade Procedures Section shall confirm the post audit pertaining to bonded warehouses through Notification (6/2017/).

(i) The State Office Supervision Section shall contact the Bonded Warehouses Section to apply for the opening of bonded warehouses, extension of holding period, cancellation or abolition of bonded warehouses, and closure of bonded warehouses in accordance with the relevant state customs offices. Employees of inspectors of bonded warehouses in the state shall be negotiated. Import declarations through the manual system shall be carried out in consultation with the Import and Export Supervision Division or the inspectors of the relevant bonded warehouses.

Kyaukphyu SEZ's importance stressed = Commander-in-Chief

General Min Aung Hlaing, chairman of the State Administration Council (SAC), the highest decision-making body of the Myanmar Armed Forces, believes it is important to realize the development of the planned Kyaukphyu Special Economic Zone (SEZ) in western Rakhine State. The state-run newspaper Global New Light of Myanmar reported on March 1.

On February 28, the Commander-in-Chief met with government officials from the Kyaukphyu District of the province to discuss the development of the SEZ. He explained that the development of a deep-sea port for the purpose of trade promotion has begun. He then stressed that the development of the Kyaukphyu SEZ must be promoted in order to further contribute to the country's prosperity.

He also pointed out the importance of agriculture and livestock industry. In the Kyaukphyu District, in particular, he believes that fish and shrimp farming and the production of coconut products can contribute to creating jobs and raising the incomes of local residents.

China's Kunming - Kyaukphyu railroad to resume development

Development work on a railroad linking Kunming in China's Yunnan Province with Kyaukphyu in Myanmar's western Rakhine State is likely to resume. Frontier Myanmar reported on February 27.

A Myanmar Railways (MR) official told Frontier that a Chinese company has resumed preparatory work for the development of the railroad, which had been delayed due to the spread of the new coronavirus and the coup d'état.

The railroad will form part of the China-Myanmar Economic Corridor, part of China's "One Belt, One Road" initiative for a broad economic zone. The development will be carried out jointly by China Central Railway Engineering Group (CREEG), a subsidiary of China Railway Engineering Group (China Central Railway, CREC), and MR.

The two countries approved the first section of the route from Kunming to Mandalay in north-central Myanmar in 2019 and conducted a feasibility study. An environmental impact assessment was also conducted at the end of 2021 after the coup and approved in 2022. On the other hand, preparatory work for the development of the second section from Mandalay to Kyaukphyu was suspended until the end of last year.

According to MR officials, Myanmar's Ministry of Transport and CREEG have recently resumed discussions on the routing of the second section. A CREEG official posted on a member exchange website (SNS) that he is participating in preparatory work for the second section of the Kunming - Kyaukphyu railroad in Myanmar.

However, it seems unlikely that the railroad development will proceed as planned. This is because there is a risk of attacks by forces resisting the national army. The democratic National Defenders (PDF) of Myaing County District in the central Magwe region said, "We do not know much about the railroad project, but we are always ready to attack the national army's projects". A resistance group based in the region also said, "If the railroad is being built for the people, we will not attack it, but this railroad is clearly only for the benefit of the national army and China" and suggested the possibility of an attack.

Exports Charge to China up 42% in 2022.

Natural resources are booming, exceeding pre-political-change levels

Exports from Myanmar to China in 2022 were recently revealed and exceeded the previous year's results for the second consecutive year. The total value of exports was approximately US\$11.494 billion (approximately 1,549.8 billion yen), a 42% increase over the previous year, driven by natural resources such as gems and natural gas, and an 81.2% increase over 2020, far exceeding the level before the political change, making the recovery trend even clearer.

China is Myanmar's largest trading partner, relying on it for about 30% of both imports and exports.

According to the General Administration of Customs of China (GACC), the value of Myanmar's exports to China in 2010 by HS import/export statistics item number (HS code) was US\$4,104.56 million of jewelry of category 71 accounting for nearly 40% of total exports to China. The export volume of gems to China was 3.8 times that of 2021.

Category 27, which includes crude oil and natural gas, and Category 26, which includes ores and slag, increased 1.5% and 37.2%, respectively, from the previous year, and both reached nearly US\$1.5 billion in value. The total value of Part 5 "Mineral Products" including Category 26 and 27 increased by 15.4%.

Among base metals, steel in category 72, at US\$229 million, was down 35.8%. Category 74, copper and copper products, declined 85.4% to US\$66.2 million.

China accounts for 50% of the world's copper demand. In Myanmar, the Chinese company Wanbao Mining owns three copper mines in the northwestern Zagayin region, together with a state-owned military conglomerate. Production at the Lepadaung Mine has been suspended since February 2021 when a political change occurred. The other copper mines have been damaged by clashes between the national army and pro-democracy militants guarding the mines.

According to Myanmar's Ministry of Commerce, the country mainly exports gold, silver, copper, jade, pearls, diamonds, lead, tin, tungsten, zinc, coal, and other jewelry, base metals, and ores.

Agricultural exports are also strong.

The Part 2, "vegetable products," which includes fruits and vegetables, also performed well, growing to US\$1,282.49 million, 2.2 times that of the previous year and 2.5 times that of 2020. Particularly notable growth was seen in category 7, such as vegetables, which expanded nearly six-fold to US\$501.53 million. Category 12, seeds and fruits from which vegetable oil is extracted, doubled to US\$304.27 million, and Category 10, grains including rice, increased 22.9% to US\$382.86 million.

In Muse, northeastern Myanmar Shan State, the largest border trade center with China and bordering Ruili City, Yunnan Province, Chinese authorities closed all checkpoints in 2021 as a waterfront measure against the new coronavirus. In November of the same year, only the Chin San Cho checkpoint resumed operations on a trial basis. There were concerns about the impact on trade with China, but overall exports of agricultural products grew significantly.

• Total import value up 29%.

Meanwhile, total import value from China in 2022 rose 29.2% to US\$13,615.88 million, the first time in three years that the value of imports from China has been above water.

By item, Part 11, "Textile Fibers and Their Products" showed US\$3,453.3 million, a remarkable growth of 44.9% y/y and 44.1% of 2020, which was attributed to an increase in imports of raw materials for garment production using the CMP (cut, sew and packaging) consignment method. Myanmar's garments produced by the CMP method are a means of earning foreign currency, and exports to Japan and other countries continue to be brisk.

In addition, category 85, which includes electrical products, totaled US\$1,025.88 million, up 22.8% from the previous year.

The balance of trade with China for the full year of 2022 was a deficit of US\$2.122 billion. The deficit narrowed by more than US\$300 million from the previous year.

Ministry of Commerce Reminds Imports to Obtain Permits Prior to Arrival

The Trade Department of Myanmar's Ministry of Commerce, which is under the control of the national military, issued a notice on maritime trade on February 2, reiterating to all concerned that they are obliged to obtain a permit before the arrival of imported goods. MITV, the English-language division of state-run broadcaster MRTV, reported on February 14.

Lan Sang Woo, director of the bureau, urged caution, saying that the bureau had issued a notice last year that measures would be taken based on the Import and Export Law if imported goods were found without a permit issued by the relevant department.

He explained that the Foreign Exchange Supervisory Commission (FESC), which is under the jurisdiction of the Central Bank, has established five commodity groups for applying for import licenses in maritime trade. Agricultural machinery, fuel, edible oil, education-related products, and health-related products, which are included in groups 1 to 3, can obtain import permits immediately upon application. For raw materials, food products, and electronic products included in the remaining two groups, import licenses are likely to be issued after a certain period of time.

In Circular No. 93 of 2015 on Import and Export Regulations, the Ministry of Commerce stipulates that for items requiring an import license, the shipment must not arrive before the import license is obtained. No. 50 of the same 20 year states that, with some exceptions, goods shall not be shipped before obtaining an import license.

On the other hand, until April 2022, the Ministry had allowed shipments of goods prior to obtaining an import license in order to promote smooth trade. However, in the same month, the ministry changed its policy. Importers were informed that they would not be allowed to apply for an import permit after the shipment arrived, after the 20th of the same month.

DICA Announcement to Companies

This introduces an announcement issued by the Department of Investment and Corporation Administration (DICA) to remind companies to comply with laws and regulations.

■ 1. Introduction.

In November 2022, the Directorate of Investment and Company Administration (DICA) issued an announcement (hereinafter referred to as the "Announcement") to remind companies to comply with laws and regulations. The contents of the Announcement are as follows

■ 2. Contents of this Announcement

- DICA has been using the electronic registration system (MyCO) since August 1, 2018, in accordance
 with the provisions of the law since the implementation of the Myanmar Company Law of 2017, to
 register companies in accordance with the prescribed regulations and to supervise registered companies
 in accordance with the Myanmar Company Law.
- Although MyCO has been established and is equipped with international standard facilities, but it is currently found that companies, company directors and employees are not complying with the provisions of the law.
 - (a) An increasing number of companies are being suspended for failing to submit annual reports as required by law.
 - (b) An increasing number of firms have been terminated for failing to file annual reports as required by law and have received dispositions of termination.
 - (c) The address of the registered office does not actually exist; or
 - (d) The company or entity has intentionally or negligently failed to comply with legal requirements to maintain a registry or other necessary information.
 - (e) It is discovered that a company or entity does not have a specific bank account and uses a personal bank account to conduct financial transactions.
 - (f) After registering the company, it is found that the company/entity is doing business without specific licenses/permits from the relevant department.
- (g) A director/employee (in part) fails to comply with the provisions of the Myanmar Company Law, either knowingly or unknowingly, with his/her responsibilities as a director/employee under the Myanmar Company Law.
- Companies can easily register through the MyCO registration system, and the Registration Authority
 can supervise MyCOs using electronic monitoring system, automated warning system, and warnings
 and actions for errors and failures.
- 4. In this way, we hereby announce that we will conduct quality scrutiny and take the measures required by law, such as imposing fines, to ensure better understanding and compliance with the Myanmar Company Law by companies, company officers, and members.

■ 3. Supplement

All companies must file a report, called an annual report, within two months of incorporation and at least annually (but not more than one month from the date of incorporation).

In addition, they must file a change of registered address when they change their address.

Besides that various other obligations are stipulated in the Companies Act, such as the requirement that at least one of the directors must be a resident director.

When conducting business in Myanmar, it is necessary to comply with the Myanmar Company Law after establishing a local corporation or branch office, and penalties may be imposed for non-compliance. In addition, it is advisable to regularly consult with experts to confirm that the company is in compliance with the law, as there is a risk that a violation of the law may also damage the reputation of the head office or the parent company in Japan.

Relaxed rules for foreigners entering the country and joining state insurance

On March 22, Myanmar's Ministry of Health eased the requirement for foreigners who entering the country to join Myanmar Insurance, a state-run insurance company, as part of the country's measures against new coronavirus infection. As long as the cost of treatment for the new coronavirus is covered, it is acceptable to enroll in insurance provided by companies other than the state-run insurance. However, there is still variation in the documents approved by the person or official in charge.

Exemptions from state-run insurance have been granted to business visa holders since mid-February, and on March 22, the exemption was extended to all visa holders. Those who have received at least the prescribed number of inoculations with the new corona vaccine approved by the authorities are now required to present travel insurance that includes coverage for new corona.

However, it must "include the new Corona Medical Insurance". It must be presented printed along with other documents. Foreigners staying in Myanmar with commercial visas say that even though they were exempted from purchasing state insurance, they had to purchase state insurance upon re-entry because of the ambiguity of the operation.

Myanmar International Airlines (MAI) ground staff member working at Thailand's Suvarnabhumi International Airport expressed the view on March 24 that "entry into Myanmar must include the statement 'all treatment expenses will be covered' or 'treatment expenses for new coronas will be covered'". The policy does not allow "treatment and rescue expenses" even if it is written in English in the coverage section of the insurance card. Another ground staff said, "It depends on the case, and there are people who were not allowed to enter Myanmar because they did not subscribe to the national insurance.

At the Yangon International Airport, documents related to the new Corona are checked before immigration, but the documents accepted differ depending on the officer in charge. In some cases, it is possible to pass through by presenting documents proving membership in a Japanese insurance company.

If you are applying for an e-visa (electronic visa) instead of obtaining a visa at the Myanmar Embassy, you will still need to join the state-run insurance.

The premium for the state-run insurance is US\$50 in 15 days policy period. Due to the ongoing political unrest in the country since the coup d'état by the national army two years ago, almost no foreigners enter the country for tourism purposes.

Spend management of budget and strengthening of tax collection are important by Commander-in-Chief.

General Min Aung Hlaing, chairman of the State Administration Council (SAC), the highest decision-making body of the Myanmar Armed Forces, said on March 21 that he believes tax collection needs to be strengthened to meet revenue targets while controlling spending of federal budget.

The Commander-in-Chief explained at the Finance Committee meeting held on March 21 that the federal budget for FY2023 (April 2023 - March 2024) will be allocated the budget to efforts of achieve the five-point roadmap (itinerary) and 12 targets (stated by the national army after the coup). On the other hand, he pointed out that if ministries and regional and state governments fail to meet their revenue targets, they may not be able to fully contribute to the budget. He instructed responsibles of each department to strengthen tax collection while supervising budget disbursements, and instructed state-owned enterprises to aim for increased revenues.

He also mentioned the need to develop domestic products, shift from an importing country to an exporting country, create jobs, and raise per capita income. He stressed that if the production of high-quality consumer goods could be expanded through the reopening of state-run factories, foreign currency expenditures could be reduced.

And he explained that the government is working to expand power generation projects in order to secure the electricity needed for development projects, and that the budget allocation for these projects is being increased.

The Finance Committee approved the FY23 federal budget bill. The law will be submitted to the SAC soon and prospected to apploval.

Conditions for Importing Motorcycles for Sale in Showrooms

This is presents a notice issued by the Ministry of Commerce regarding conditions for importing motorcycles for sale in showrooms.

■ 1. Introduction.

On November 11, 2022, the Ministry of Commerce issued the Notice on Conditions for Importation of Motorcycles for Sale in Showrooms (hereinafter referred to as the "Notice"). The contents of the Notice are as follows.

■2.Contents of the Notice

- 1. The importation of motorcycles for sale in showrooms must meet the following conditions
- (a) The company should be a Myanmar-owned company or a joint venture between a Myanmar national and a foreigner, registered with the Department of Investment and Company Administration (DICA).
- (b) The company should be officially designated as a distributor (or dealer) of new motorcycles by the overseas original company or regional office.
- (c) The company should be able to provide quality assurance for batteries, after-sales service, spare parts support, maintenance, and service centers for electric motorcycles.
- (d) The company opening the motorcycle showroom must provide a bank guarantee letter certifying that the company can deposit 50 million kyat in a bank approved by the Central Bank of Myanmar.
- (e) The company opening the motorcycle showroom shall present a tax certificate in the applicable fiscal year issued by the Internal Revenue Service, depending on the type of business involved.
- (f) Comply with the standards for the establishment of showrooms issued periodically by the Department of Commerce.
- (g) The area of the two-wheeler showroom (including lounge, guest room and after-sales service center) shall be at least 5,000 square feet.

- (h) The company shall apply for the relevant regional/state and relevant development agency permits in accordance with the procedures. Within the application period, the showroom may be allow with approve by the relevant township development authority recommending the opening of the showroom.
- (i) Branches of two-wheeler showrooms may be opened in the relevant region/state with the approval of the Regional/State Development Authority.
- (i) Motorcycles imported for sale in showrooms must be new.
- (k) Model year of Motorcycles to be imported must be less than two years old upon arrival.
- (1) Motorcycles to be sold in showrooms may be imported by letter of credit (LC) or wire transfer (TT).
- (m) Imported motorcycles must arrive at the port (or relevant border trade camp) within the validity period of the license.
- (n) The quantity and brand of motorcycles imported for sale in motorcycle showrooms must be in accordance with the regulations of the Department of Commerce.
- (o) Imported motorcycles must be placed in designated showrooms. If they wish to display them elsewhere, they must obtain prior permission from the Department of Commerce.
- (p) A company authorized to open a motorcycle showroom shall not transfer its motorcycle import permit to another person.
- (q) The person responsible for the business must permit the Department of Commerce or an organization designated by the Department of Commerce to periodically review documents, evidence, and accounts relating to imported motorcycles sold in the motorcycle showroom.
- (r) Showroom permits and business agent registration certificates may be extended up to 90 days prior to expiration, and the application must be accompanied by a tax receipt issued by the Internal Revenue Service.
- 2. Failure to comply with the provisions of paragraph 1 shall take in action in accordance with existing law