



COVID-19 Impact on Supply Chains in East & Southern Africa

October 2020

Cormac O'Sullivan, Niklas Jaeschke, Baraka Bensolomon - HELP Logistics

Agayo Ogambi - SCEA

George Njeru - IAWG

Table of Contents

1. Overview.....	i
2. Supply Chain Capacity	ii
3. Supply Chain Costs	iii
4. Level of Trade	iv
5. Lead Times.....	vi
6. Conclusion and Recommendations.....	viii

1. Overview

HELP Logistics, in partnership with the Shippers Council of East Africa (SCEA) and supported by the Inter Agency Working Group (IAWG), disseminated surveys to assess and quantify the impact of COVID-19 on logistics networks and trade flows in East and Southern Africa.

Seventy-six respondents from the Logistics industry responded. 37% worked in global roles, 42% worked in regional roles, and 21% worked at a national level.

Respondents worked across the supply chain with notable numbers in service provision and distribution¹. 40(53%) worked in commercial supply chains. 29(38%) worked in the humanitarian / development sector. The remaining 7(9%) worked in consultancies, technical membership associations or a relevant area in the academic sector. Many respondents worked across multiple segments of the supply chain, with high numbers in logistics service providers, as in Figure 1.

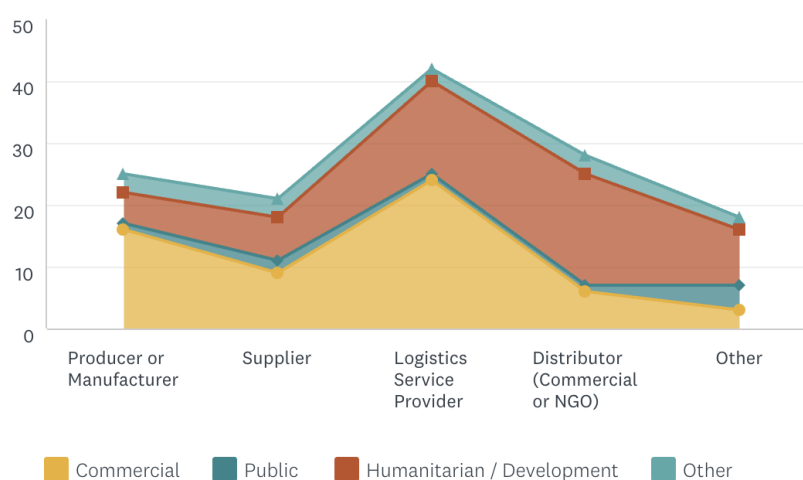


Figure 1: What area of the supply chain do you work in?

The survey shows changes in supply networks capacity with reductions in transport capacity and operating funds. Costs and lead-times have increased. Across the region, measures introduced to minimize the spread of COVID-19 appear to have reduced airfreight capacity and impacted road transport capacity.

¹ Respondents could signify inclusion in 1 or more areas of the supply chain

2. Supply Chain Capacity

The consortium assessed the impact of COVID19 on capacities in supply networks. Responses show significant changes with notable reductions in transport capacity and operating funds.

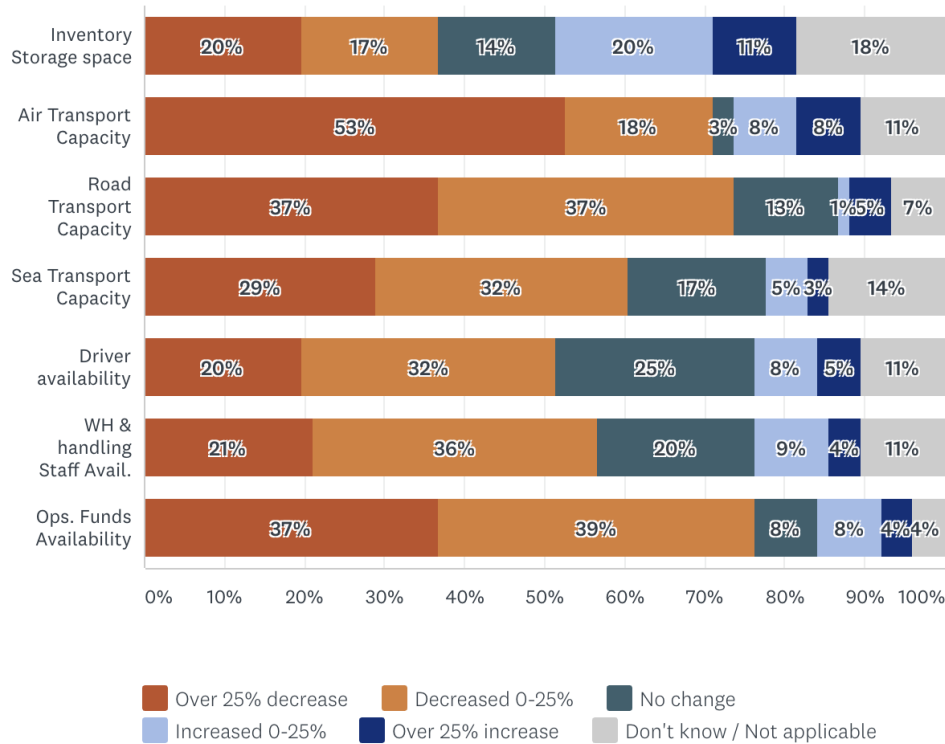


Figure 2: Supply Chain Capacity - How is COVID-19 affecting supply chain capacity?

Inventory storage space had the most even spread of responses. 37% reported a decrease in capacity, 14% reported no change, while 31% reported increases. 18% stated they did not know in relation to this segment. Organizations typically reduce stock holding levels to attain economic efficiencies by minimizing inventory carrying costs while still meeting demand. Such strategies usually necessitate fewer suppliers; long-term, reliable partnerships; and less wasteful inventory and warehouse management systems. Theoretically, uncertainty associated with the pandemic should signify a need to reverse this strategy and to increase stockpiling practices with a more diversified supplier range². However, if such an approach were in use, we would expect to see reduced levels of inventory capacity. Instead, the varied response suggests that neither stockpiling nor lean stock management is being applied commonly by organizations in response to the pandemic. However, this survey was conducted in July / August 2020; hence a lag in the implementation of such strategies is possible because organizational strategies evolve in response to the pandemic.

² To deductively understand this change, consider a general principle for calculating inventory replenishment levels. This exercise would require knowledge of average daily demand, replenishment lead time and safety stock levels used. As is the case now, if replenishment lead times are uncertain, and demand increases due to abrupt change in consumer behavior, base case inventory replenishment levels thus become highly inaccurate. One way to ensure this inaccuracy is mitigated would be increasing safety stock and maximum stock levels. These two responses to uncertainty ultimately require increased storage space.

Similarly, different sectors might be responding to varying factors in supply versus demand. One assumes that the food and agricultural industries would prefer to stockpile, where possible. In contrast, industries dealing with non-essential luxury or comfort goods might prioritize lean stockholding strategies as consumers reduce their spending on non-essentials.

Respondents reported reductions in air (71%), road (74%) and sea (61%) capacities. That aligns with anecdotal perspectives that initially, COVID-19 negatively affected ability across all transport infrastructure. A significant reduction in air capacity - where half of the respondents noted that airfreight had decreased by over 25% - suggests that demand is likely outstripping the supply of capacity and/or that the reduction in passenger flights and the resultant reduction in belly cargo availability has a noticeable impact on perceptions of availability.

Overall reductions were noted for staff capacity for drivers (52%) and warehouse and handling staff (57%). The findings may be attributed to stringent public health requirements for working environments and increased demand for qualified drivers³.

Available funds for operations were perceived to have reduced - by 76% of respondents. This indicates a drop in operating budgets. It is likely that - in the short-term - this burden will negatively lessen the capacity of supply networks to continue working. In tandem with lower demand for services caused by reductions in trade; as well as higher costs for the same services; supply networks, in general, might see significant changes with some operators potentially going out of business as the environment adapts to the COVID-19 pandemic.

3. Supply Chain Costs

We wished to determine if costs stayed the same, decreased or increased; while investigating what respondents believed to be the reason for these changes. Across all categories, 83% of respondents indicated costs increased, with an average of 65% indicating that costs increased by over 10%, of which 38% indicated that costs increased by over 25%. On average, 7% found that costs stayed the same or reduced, and 10% stated that they did not know. Such significant increases in operating costs - when taken against the indication from Figure 2 that 76% of respondents found there to be a reduction in funds available for operations - is concerning.

In this funding analysis, of the 29 humanitarian/development organizations, 18(62%) stated they were experiencing a reduction of funds, but 24% were experiencing an increase; illustrating a slight downward trend overall. However, of the commercial organizations, 34(85%) stated they experienced a reduction of funds in their operating budgets, illustrating that the commercial sector is already facing a decline in available funds. If supply networks are burdened with reduced capacity and service providers are facing increased costs and potential revenue loss, the carrying capacity for the movement of critical items may be at risk in the short-term - if the logistics service provision market significantly contracts or restructures. Factors that impacted the most on cost included increased customs procedures, transport delays and staff changes.

³ Numerous examples have been cited in the press of drivers having to be quarantined after crossing borders.

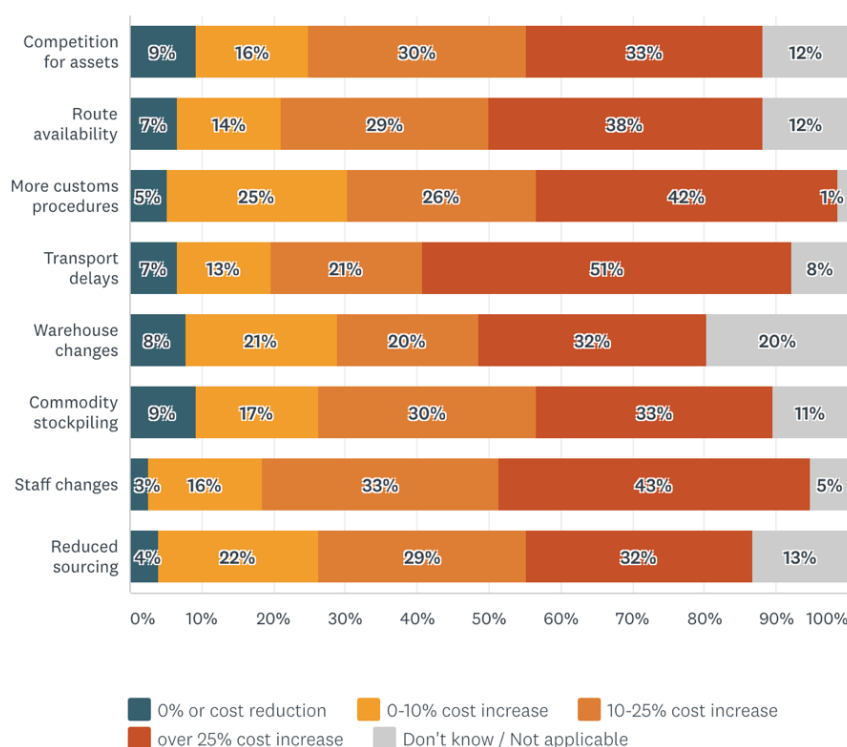


Figure 3: How are the impacts of COVID-19 influencing supply chain costs?⁴

4. Level of Trade

In the survey, of the 66 respondents who responded to a question on the perception of changes in trade, as in Figure 4, 70% noted reductions in export, 69% reported declines in imports and 59% noted reductions in domestic volumes. Such significant reductions in the trade and flow of commodities across supply networks indicates a reduced trading environment, with lesser flows in the networks and consequent decreases in trade capital, supply chain development and supply chain effectiveness.

⁴Below are the full versions of the terms used in the survey, which have been shortened in this graph for the sake of clarity
 Competition for Assets (trucks, planes, warehouses)
 Route availability (international transport)
 More customs procedures (increased customs public health measures)
 Transport delays (truck availability and turnaround)
 Warehouse changes (reconfiguration / decontamination - public health measures)
 Commodity Stockpiling: (Forecasting issues - uncertain demand and supply)
 Staff Changes (Staff testing, PPE and social distancing - public health measures)
 Reduced sourcing options (uncertain supply)

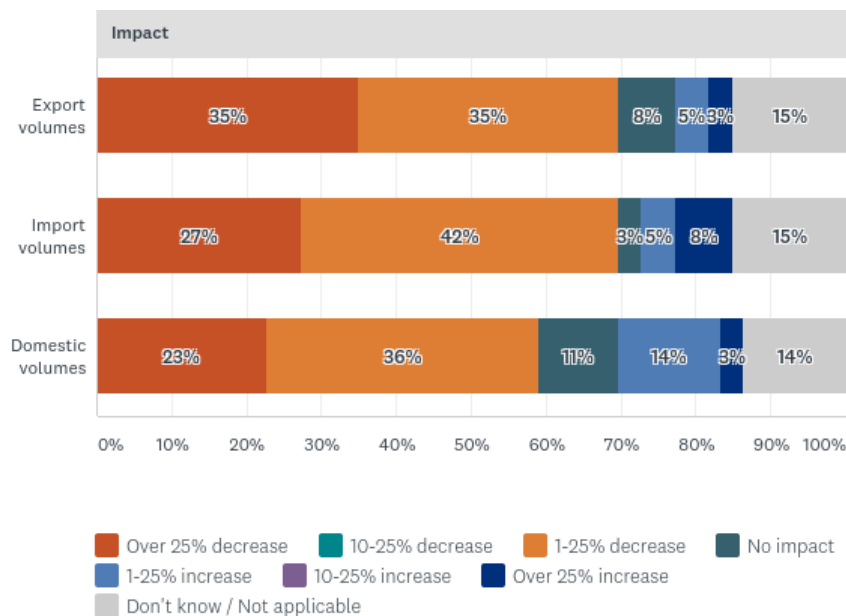


Figure 4: How has COVID-19 affected trade flows between 2019 and 2020?

In terms of the reasons for impacts on trade as per Figure 5, significant impacts were reported for government restrictions and customs delays.

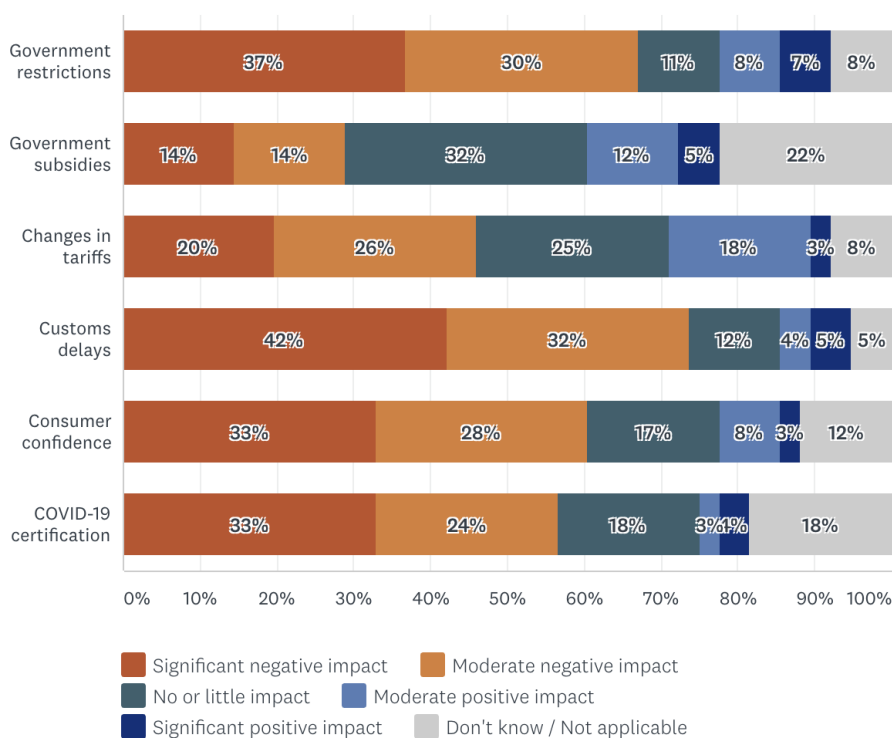


Figure 5: The impact of different factors on trade flows

- **Government restrictions on commodities for import/export:** 67% of respondents reported a negative impact of government restrictions.
- **Government subsidies to logistics service providers:** There are a range of perspectives on whether or not government subsidies (VAT reduction in Kenya for example) had an impact, with 28% of respondents indicating a negative, 32% no or little, and 17% a positive impact.
- **Changes in tariffs and associated costs (import/export licenses):** Most respondents reported a moderate or significant adverse impact (46% combined), while only 21% reported a moderate or significantly positive effect.
- **Customs delays caused by public health measures:** 74% of respondents reported a negative impact from customs delays.
- **Reductions in consumer confidence and expenditure:** 61% of respondents reported a negative impact of reduced consumer expenditure.
- **Lack of confidence in COVID-19 health certification from another state:** 57% of respondents reported a negative impact, due to a lack of confidence in health certification, for transporters.

5. Lead Times

We wanted to know whether or not lead-times stayed the same, decreased or increased while investigating what respondents believed to be the reasons behind these changes. We found that lead-times increased significantly. On average, across the categories, 70% of respondents indicated that lead-times have increased, with an average of 43% indicating that lead-times have increased by over ten days – the maximum category in this survey. Longer delays than this are included within this category. On average, 12% found that lead-times stayed the same or reduced and approximately 18% indicated that they did not know. Ten days was considered to be the point at which a delay would start to be significant disruption on other segments of the supply chain. Consistency in delays across the seven categories – but particularly for over ten days in supplier manufacturing, availability of sea and air freight, and customs and border issues – indicate critical issues in core segments of various networks.

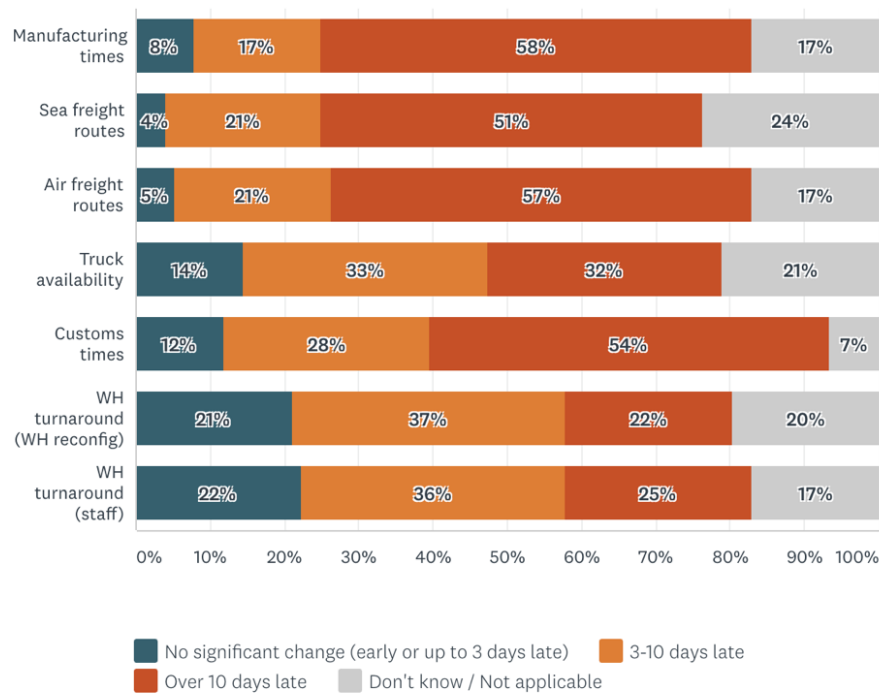


Figure 6: How is COVID-19 affecting average lead times?⁵

Delays over ten days in the upstream of the supply chain (manufacturing) – related to the activities of producers - were reported by 58% of the respondents. Potentially, this indicates a knock-on effect from other delays in second or third-tier supplier networks; itself indicative of broader disarray throughout supply environments.

Issues with lead-time delays because of availability of air freight (57% over 10 days), road freight (32% over 10 days) and sea freight (51% over 10 days) as noted in this category but also as noted in Figure 2 on general capacity; indicate significant issues with this core area in the supply networks. Freight capacity, in general, is stated to have both reduced availability and significant delays, illustrating uncertainty in the operating environment.

Impacts from delays in the warehouse due to PPE concerns and reconfigurations due to physical distancing were less impactful than in other categories although still notable.

⁵ Below are the full versions of the terms used in the survey, which have been shortened in this graph for the sake of clarity

Manufacturing times: Supplier manufacturing and processing times

Sea freight routes: Availability of sea freight route options

Air freight routes: Availability of air freight route options

Truck availability: Availability of trucks and truck drivers

Customs times: Customs and border processing times (public health measures)

WH turnaround (WH reconfiguration): Warehouse turnaround and dispatch times (warehouse reconfiguration)

WH turnaround (staff) Warehouse turnaround and dispatch times (staff PPE and social distancing)

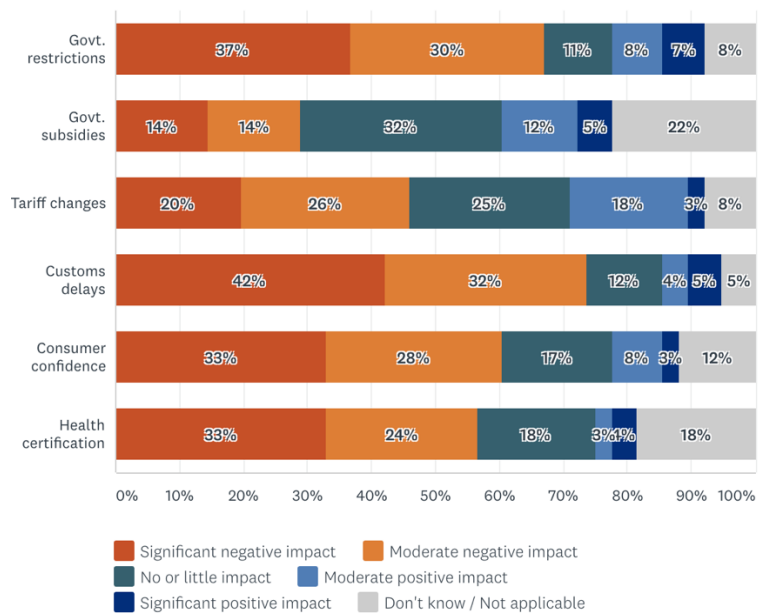


Figure 7 How are the factors above related to COVID-19 impacting trade flows?⁶

67% of respondents felt that Government restrictions on commodities for import/export hurt trade flows; as did customs delays caused by public health measures at 74%; reductions in consumer confidence at 61% and lack of confidence in COVID-19 health certification from other states at 57%.

6. Conclusion and Recommendations

The survey and subsequent analysis show significant changes in supply networks capacity with reductions in transport capacity and operating funds. Costs appear to have increased, primarily due to increased customs procedures, transport delays and staff changes. Correspondingly, indications show lead-times have increased. Across the region, measures introduced to minimize the spread of COVID-19 appear to have reduced airfreight capacity and impacted road transport capacity. However, consistent attempts appear to be ongoing to keep borders open and trade moving. Generally, trade is reduced.

It concerns us that supply networks appear burdened with less capacity, and service providers face the dual threat of increased costs and revenue loss. Hence, the carrying capacity for the movement of critical items may be at risk in the short-term if the logistics service provision market significantly contracts or restructures.

⁶ Below are the full versions of the terms used in the survey, which have been shortened in this graph for the sake of clarity

Govt. restrictions: Government restrictions on commodities for import / export

Govt. subsidies: Government subsidies to logistics service providers

Tariff changes: Changes in tariffs and associated costs (import / export licenses)

Customs delays: Customs delays caused by public health measures

Consumer confidence: Reductions in consumer confidence and expenditure

Health certification: Lack of confidence in COVID-19 health certification from other states

As in Figure 8, survey respondents considered favourably; the need to ensure regional cohesion on testing; more short-term strategies of stockpiling; longer-term strategies of regional production as well as concerted efforts to continue to open up consistent lanes of the road and air routes.

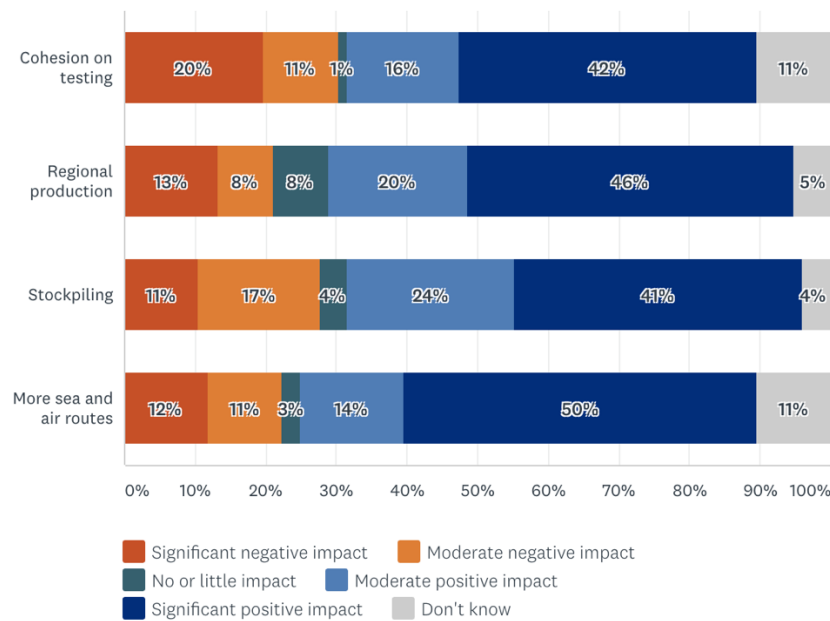


Figure 8: Measures to improve supply chain operations⁷

Additionally, survey respondents recommended a series of measures as follows:

Public Health Measures: Regionally aligned, faster testing and coordinated responses for SCM; expansion of testing programs to more industries to improve confidence in workplaces; digital tracking of results; support for supply chain staff as essential workers;

Digital Tracking: Further automate customs and regulatory activities to minimize physical contact and map cargo / driver movements to ease cargo movement.

Supply Chain Strategic Shifts: Regionalization of supply; establishment of a regional hub and integration of regional supply chain information through a universal electronic portal; diversification of supply; improved pre-stocking and strategic stockpiling; improved (internal) distribution planning and monitoring

Government Measures - Customs, trade and infrastructure: Changes in tariffs and associated costs (import / export licenses) to encourage trade; price monitoring by government; expanded definition of essential items for customs; improved waiver system for crucial items; an electronic system for tracking COVID19 permits.

⁷ Below are the full versions of the terms used in the survey, which have been shortened in this graph for the sake of clarity

Regional cohesion on COVID-19 testing to increase truck movement

Greater investment in regional production of key commodities

Stockpiling of key commodities to ensure greater availability

Greater availability of sea and air routings to ensure more regular flow of commodities

HELP Logistics Limited
4th Floor, Eaton Place,
United Nations Crescent,
PO Box 2856 – 00621, Gigiri
Nairobi, Kenya
Tel: +254 70 914 6000
cormac.osullivan@kuehne-stiftung.org

information-help@kuehne-stiftung.org
www.help-logistics.org
