



EAST AFRICAN COMMUNITY

# Standard Operating Procedure


## Logistics Management

### of Regional Outbreak Preparedness, Early Warning and Response



Image: ©Tabley Basajatebadiba BAKYAITA

One Region – One Vision – One Health

	<b>EAST AFRICAN COMMUNITY</b>	<b>EAC/HEALTH/OH/...</b>	
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This SOP is a joint venture of an EAC expert group that met first in July 2018 in Arusha, Tanzania:

***‘A systems approach begins when first you see the world through the eyes of another.’***

C. West Churchman (1968)

### **Background:**

This SOP was developed within the scope of the implementation of the EAC Regional Contingency Plan for Epidemics due to Communicable Diseases, Conditions and Other Events of Public Health Concern.

### **Purpose of the SOP:**

The purpose of this SOP is to describe processes, resources and necessary steps for the logistics management of complex outbreak emergencies in the EAC region.

### **Scope of the SOP:**

- Present an approach to key logistics decision-making under uncertainty in the face of a complex outbreak emergency in the EAC region,
- List the necessary steps and key resources to meet fundamental logistical issues in typical outbreak scenarios,
- coordinate the contributions of Partner States to support joint EAC outbreak preparedness and facilitate joint and effective outbreak response operations.

### **Target audience:**

This document is relevant for logisticians at all levels of the EAC Outbreak Early Warning and Emergency Response Structure as well as for external support personnel deployed to perform logistics functions.

### **Definitions**

- a. SOP – Standard Operating Procedure: Is a set of instructions or steps for carrying routine and provide detailed guidance for initiating and completing any process in logistics management within a specified time.
- b. Logistics management: Is the process of planning, implementing and controlling the efficiencies, effective flow and storage of raw materials, in process inventory, finished goods services and related information from the point of origin to the point of consumption (including inbound, outbound, internal and external movements) for the purpose of conforming to customer requirements. In other words, logistics management is about providing the right good available in the right quantities in the right condition delivered to the right places at the right time for the right cost.

# Table of Contents

<b>Table of Contents</b> .....	<b>4</b>
<b>List of Abbreviations</b> .....	<b>5</b>
<b>1. Introduction</b> .....	<b>6</b>
<b>SOP-Task #1</b> .....	<b>8</b>
<b>2. Stakeholder Analysis</b> .....	<b>8</b>
<b>SOP-Task #2</b> .....	<b>9</b>
<b>3. PRIMARY LOGISTICS FUNCTIONS OF OUTBREAK MANAGEMENT</b> .....	<b>9</b>
3.1. Continuous Logistics Management Functions according to the Contingency Plan .....	10
3.2. Primary responsibilities for the Regional Operations and Logistics Officer .....	10
3.3. Primary responsibilities for the Regional Operations and Logistics Team .....	11
3.4. Primary logistical task tailored to mission .....	12
<b>SOP-Task #3</b> .....	<b>16</b>
<b>4. EAC LOGISTICS MANAGEMENT COORDINATION</b> .....	<b>17</b>
4.1 Procedural considerations relevant for the logistical coordination resulting from agreements between the Partner States .....	18
4.2. Pending Agreements between the Partner States that could be supportive of the logistical outbreak management challenges in the region.....	20
4.3. A Joint Outbreak Preparedness and Response Logistics Management Information System .....	21
<b>SOP-Task #4 (only for EAC secretariat level, especially the RCO and the ROLO)</b> .....	<b>21</b>
<b>Annexes</b> .....	<b>22</b>

## List of Abbreviations

ASEAN	Association of Southeast Asian Nations
EAC	East African Community
IEC	Information, education, communication
ECOWAS	Economic Community of West African States
EU	European Union
FELTP	Field Epidemiology and Laboratory Training Program
GIS	Geographic Information System
ICT	Information and Communication Technology
JOPR-LMIS	Joint Outbreak Preparedness and Response Logistics Management and Information System
MedEvac	Medical Evacuation
NFP	National Focal Point (here NFP for the Implementation of the Contingency Plan)
PPE	Personal Protective Equipment
RCO	Regional Coordinating Officer
RMC	Regional Managing Committee
ROLO	Regional Operations and Logistics Officer
ROLT	Regional Operations and Logistics Team
RPFO	Regional Planning and Finance Officer
RPFT	Regional Planning and Finance Team
RRADAO	Regional Risk Assessment and Data Analysis Officer
RRADAT	Regional Risk Assessment and Data Analysis Team
RRCCO	Regional Risk and Crisis Communications Officer
RRCCT	Regional Risk/Crisis Communications Team
RRT	Regional Response Team
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations
SOP	Standard Operating Procedure

## 1. Introduction

During a complex outbreak emergency in the EAC region, a variety of phenomena, challenges and problems are to be considered. They are called **Fundamental Issues** in this SOP to subsume them in one place and to avoid the general notion of 'problems' which in turn suggest the existence of something like purely technical solutions.

It is the twofold assumption of this SOP that each of these issues will demand logistical consideration in one way or another and that none of it can be 'solved' by logistical means alone. So, it is a call for a systemic and systematic approach to **Outbreak Logistics** that appreciates the 'One Health' and the 'Health in All Policies' paradigms.

Together these fundamental issues create a highly complex, ambiguous and volatile situation which is invariably characterized by uncertainty and power play between differing interests. An SOP, however, assumes certainty and neutrality to apply technical standards and widely-accepted best practice.

What looks like a contradiction in terms should rather be appreciated as a kind of outbreak response dialectics because there are 'standardize-able' and 'non-standardize-able' aspects even in the most complex situation. Consequently, the automatic and unreflected application of this SOP, or any SOP for that matter, to all aspects and all kinds of complex outbreak emergencies in the EAC region is nothing else than dangerous. In so doing, the need for operational flexibility, continuous adaption, social learning and reflection in action were ignored or suppressed.

The following image (figure 1) shows a partial compilation of **Fundamental Issues** during a complex outbreak emergency. On the one hand, it is a partial picture because such a compilation will never be exhaustive. On the other hand, it is partial because it is made from the perspective of a technical outbreak management specialist. Other relevant perspectives are left out.

The foregoing notwithstanding, the image showing these **Fundamental Issues** is placed first in this SOP rather than being misaligned to one of the annexes:

### **Form follows Function!**

Here can and should be the starting point of all logistical outbreak management activities considered or executed by EAC professionals.

Even more important, it can and should be a continuous point of reference for logistical decision-making under uncertainty.

Most certainly, it can and should be questioned, complemented and amended.

### **It is a learning document!**



## SOP-Task #1

### **DEFINE THE FUNDAMENTAL ISSUES OF A (or the) CURRENT OUTBREAK SITUATION!**

Every outbreak is different. Some will present challenges that are all new. The latter, per definition, could not have been considered in this SOP explicitly. So, the fundamental issues of the 'outbreak at hand' will most certainly differ from the generic picture in figure 2. **Therefore, the very first logistics management task is to update and specify the Fundamental Issues compilation.** If you lose significant parts of the overall picture at this stage, a One Health Approach can hardly be recovered later. On the other hand, be aware that the resulting picture will always be partial and incomplete. Consequently, it should be reconsidered frequently appreciating different perspectives and the volatility of the situation.

1. Initially, focus on medical, veterinary and environmental aspects separately. Take figure 1 above as an example. Appreciate the environment holistically comprising social, political, economical, psychological and other determinants and constraints of an outbreak response operation.
2. Then, fuse the medical, veterinary and environmental factors - as exemplarily shown in figure 1 - to discover interfaces and cross-sectional areas within a One Health system.

## 2. Stakeholder Analysis

Logistics management of complex outbreak emergencies is not exclusively, most likely not even primarily determined by logisticians. Nor can and should it be defined by a technical logistics management SOP only because it is not a stable, unambiguous and widely predictable operation like the logistics management of a factory. Consequently, it is indispensable to know the key stakeholders of the outbreak situation at hand. A discussion of the many ways to perform a stakeholder analysis is beyond the scope of this SOP. Whatsoever is chosen, the different interests, worldviews and power differentials should be kept in mind: A logistician cannot serve all parties the same way.



## SOP-Task #2

### **ANALYZE THE STAKEHOLDERS AND THE ENVIRONMENT!**

Use the CATWOE-methodology to solve this task in a systematic and systemic way:

**C** = Who are the (different) **Customers** of your logistics management activities, i.e. people that are affected by your logistics management activities either as beneficiaries or as victims?

**A** = Who are the **Actors** that are (or should be) involved in the realization of the logistics management processes? Who is doing the job?

**T** = Specify the **Transformation Processes** that your logistics management activities are to bring about.

**W** = What are the (different) **Worldviews** that trigger your and the stakeholder's actions? (Keep in mind that complex emergencies are often determined by scarcity of resources and that their allocation will likely cause tensions, e.g. between humanitarian and utilitarian worldviews.)

**O** = Who are the **Owners**, i.e. who oversees the operations. Who can stop it or change its fundamental character.

**E** = What are the **Environmental Constraints**. You can use and possibly extend the environmental considerations from Task 1. Mind legal and budgetary constraints, too.

## 3. PRIMARY LOGISTICS FUNCTIONS OF OUTBREAK MANAGEMENT

The primary functions of the logistics management before and during complex outbreak emergencies can and should directly be derived from the fundamental issues discussed above. Although outbreak emergencies may differ significantly, there is a recurrent pattern in outbreak response operations and, consequently, in the logistical support requirements. The following compilation of PRIMARY FUNCTIONS should still be appreciated with caution. It is neither universal nor exhaustive. It can and must be adapted to the situation at hand.

### 3.1. Continuous Logistics Management Functions according to the Contingency Plan<sup>1</sup>

- Supporting the EAC Secretariat’s Health Department in all activities defined by the Contingency Plan
- Setting up and maintaining 24/7 operations of an EAC Public Health Emergency Operation Centre
- Creating and sustaining a multi-sectoral technical team (ROLT = Regional Operations and Logistics Team)
- Supporting the setup of the deployable workforce, training, and support of experts during preparedness, deployment, and recovery times
- Supporting all other elements of the internal EAC Crisis Management Structure, i.e.
  - the Regional Coordinating Officer (RCO),
  - the Regional Risk Assessment and Data Analysis Officer (RRADAO),
  - the Regional Risk and Crisis Communications Officer (RRCCO),
  - the Regional Operations and Logistics Officer (ROLO),
  - the Regional Planning and Finance Officer (RPFO),
  - the Regional Management Committee (RMC),
  - the Regional Risk/Crisis Communications Team (RRCCT),
  - the Regional Response Team (RRT),
  - the Regional Planning and Finance Team (RPFT) and
  - the Regional Risk Assessment and Data Analysis Team (RRADAT)

### 3.2. Primary responsibilities for the Regional Operations and Logistics Officer

The Regional Operations and Logistics Officer (ROLO) shall perform an in-depth needs assessment with all officers and teams of the EAC Crisis Management Structure (as mentioned above). This assessment shall be done in September of each year and immediately in case of significant changes or actual outbreak incidents. Based on the needs assessment and the budgets available an annual Logistics Support Plan shall be prepared and negotiated with the EAC Secretariat Health Department and the parties affected.

Specifically, the ROLO shall:

- Coordinate and facilitate meetings of the Operations and Logistics team, according to schedule
- Establish and update database of all Logistics and operations experts,
- Submit quarterly reports to RCO
- Implement logistics and operation functions of the establishment of a Regional

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<sup>1</sup> The East African Community Regional Contingency Plan for Epidemics due to Communicable Diseases, Conditions, and other Events of Public Health Concern (2018 – 2023)

Public Health Emergency Operating Center (PHEOC), equipped with teleconference facilities

- Implement Logistics and operation functions of joint regional actions for preparedness and response
- Procure, maintain and distribute equipment and supply for emergency response,
- Coordinate the maintenance of safety and security
- Oversee the quality assurance of logistics and operation function

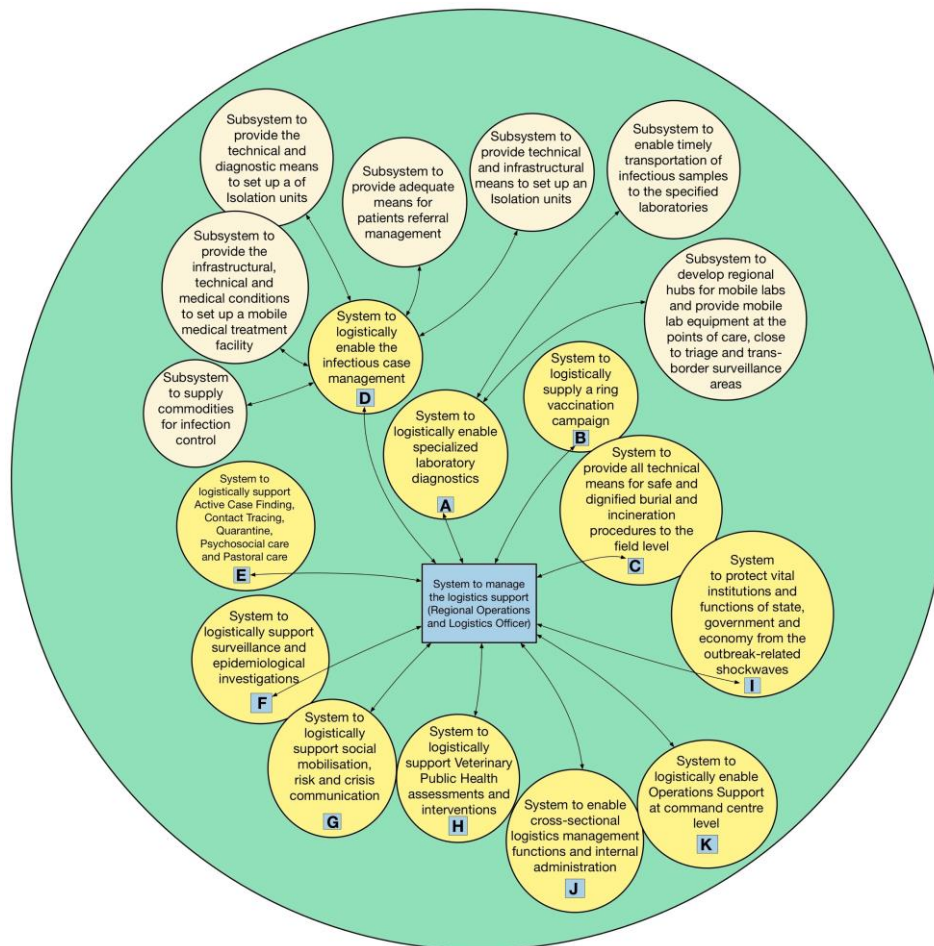
### 3.3. Primary responsibilities for the Regional Operations and Logistics Team

The Regional Operations and Logistics Team (ROLT) shall be the custodian of this SOP. Specifically, the ROLT shall:

- Prepare regional public health emergency logistics and operations guidelines including surveillance (FELTP and Laboratories), case management, Community mobilization and psychosocial support
- Convene periodically regional logistics and operations experts to develop strategies for regional logistic support and operations capacity building and to conduct simulation exercise
- Train Partner State teams to understand key logistics elements and operations in the event of a public health emergency
- Produce logistics guide and operations templates for specific public health emergencies
- Prepare regional public health emergency logistic support needs and related supplies in the event of a regional public health emergency
- Identify regional logistic supplies and suppliers, and ensure that the regional stock pool is maintained
- lead a regional team of experts to support Partner State in meeting their logistics needs
- Implement field operations in the event of a public health emergency
- Report to the RMC on prepared plans and their implementation during a public health emergency
- Report to the RMC on the implementation of logistic activities, achievements and how constraints were solved during a public health emergency
- Assist affected Partner State to monitor and evaluate logistics support and operations performance, and review strategies accordingly
- Assist Partner States through the gradual demobilization process and guide gradual reduction of logistic support to prevent rebound
- Assist Partner States to redefine logistic support, operational needs and allocate resources accordingly
- Guide Partner States on retention of logistic support and operations capacities built during preparedness and response periods

### 3.4. Primary logistical task tailored to mission

Complex outbreak emergencies rarely follow all assumptions made in the contingency plans and SOPs. In a strict sense, there is no standard operating procedure to manage such an incident. This means that the logistics management must be flexible enough to adapt to the situation at hand. However, there are recurrent elements in most outbreak scenarios - closely related to the fundamental issues discussed above - and hence the chance to be prepared logistically. This section covers both a selection of these recurrent elements and corresponding modules of primary logistical tasks.



**Figure 3: Complex outbreak emergencies call for complex response operations with systemic logistics management. All systems are to be supported by subsystems as exemplarily shown for System A and D. At the lowest level of granularity, systems A to I should cover the outbreak related needs comprehensively.**

The following three tables correspond with the logistical systems and subsystems shown in figure 3. Primary actions and potentially scarce or critical resources are directly derived from the tasks/issues identified. The latter will differ dependent on the specific outbreak scenario. “What are my tasks?”, is the most important question for the logistics manager at EAC level facing a complex transborder outbreak incident. However, this SOP can give only tentative answers to this question since the political level of ambition, the budget available and the human resources at hand will determine the logistical room of manoeuvre. Most of the tasks and principles shown in table 1 can be applied for medical and veterinary purposes alike.

## The logistics logics from problem to action and selected critical resources

	Typical outbreak related issues (problems)	Primary tasks and actions	Potentially scarce or critical resources, the provision of which could be supported through EAC	Local level	Nat. level	EAC level	Global level
<b>A. Specialized Diagnostics</b>							
1	Transport of highly-contagious samples to specialized labs	Enable timely transportation to the specified laboratories using specialized safety packaging equipment	<ul style="list-style-type: none"> <li>- Safety packaging material</li> <li>- <b>Means of transportation</b></li> <li>- <b>What else?</b></li> </ul>	Who (which level) is responsible (R)? Who (which level) has support functions (S)? Who (which level) coordinates (C)?			
2	Mobile micro-biological and molecular-biological diagnostics	Develop regional hubs for mobile labs and provide mobile lab equipment at the points of care, close to triage and trans-border surveillance areas	<ul style="list-style-type: none"> <li>- <b>Mobile Laboratories</b></li> <li>- <b>Reagents</b></li> <li>- <b>Generators</b></li> <li>- <b>PPE</b></li> <li>- <b>Means of transportation</b></li> <li>- <b>Cold-chain equipment</b></li> <li>- <b>What else?</b></li> </ul>	R?	R?	R?	R?
				S?	S?	S?	S?
				C?	C?	C?	C?
<b>B. Ring Vaccination</b>							
3	Vaccination	Provide an effective and safe vaccination system in established vaccination areas at field level	<ul style="list-style-type: none"> <li>- <b>PPE</b></li> <li>- <b>Vaccines</b></li> <li>- Syringes, needles, consumables</li> <li>- <b>Cold-chain equipment</b></li> <li>- Disinfectants</li> <li>- Information material</li> <li>- <b>What else?</b></li> </ul>	R?	R?	R?	R?
				S?	S?	S?	S?
				C?	C?	C?	C?
<b>C. Safe and dignified Burials</b>							
4	Incineration, Safe and dignified burials	Provide all technical means for safe and dignified burial and incineration procedures to the field level	<ul style="list-style-type: none"> <li>- <b>Incinerators</b></li> <li>- <b>PPE, body bags</b></li> <li>- Disinfectant</li> <li>- Information material</li> <li>- <b>Refrigerated container</b></li> <li>- <b>What else?</b></li> </ul>	R?	R?	R?	R?
				S?	S?	S?	S?
				C?	C?	C?	C?

**Table 1:** Typical outbreak management issues Part 1: Primary logistics management actions and corresponding key resources. The latter are marked orange if great amounts are needed and misallocation and/or scarcity may be an issue. The resource is marked red if the technical or financial expenses are exceptional. In either case, an EAC level contribution could facilitate the operation.

	<b>D. Case Management</b>			<b>Local level</b>	<b>Nat. level</b>	<b>EAC level</b>	<b>Global level</b>
4	Referral of patients	Provide adequate means for patient referral management	<ul style="list-style-type: none"> <li>- <b>Means of transportations appropriate for patients transport</b></li> <li>- <b>PPE</b>, Disinfectants ('sprayer')</li> <li>- What else?</li> </ul>				Who (which level) is responsible ( <b>R</b> )? Who (which level) has support functions ( <b>S</b> )? Who (which level) coordinates ( <b>C</b> )?
5	Triage/ Screening	Provide technical and diagnostic means to set up a of Isolation units	<ul style="list-style-type: none"> <li>- <b>PPE</b></li> <li>- IR Thermometers (if needed)</li> <li>- Documentation</li> <li>- Simple fences and danger signs</li> <li>- What else?</li> </ul>	R? S? C?	R? S? C?	R? S? C?	R? S? C?
7	Treatment of patients	Provide all infrastructural, technical and medical conditions to set up a mobile medical treatment facility	<ul style="list-style-type: none"> <li>- Standard health facility logistics</li> <li>- <b>Generators</b></li> <li>- <b>Special anti-infective drugs</b></li> <li>- <b>Mobile water facilities</b></li> <li>- What else?</li> </ul>	R? S? C?	R? S? C?	R? S? C?	R? S? C?
8	Infection prevention and control in health facilities	Supply commodities for infection control	<ul style="list-style-type: none"> <li>- <b>PPE</b></li> <li>- Disinfectants and 'sprayers'</li> <li>- Donning/doffing areas</li> <li>- <b>Incinerators</b></li> <li>- Post Exposure Prophylactics</li> <li>- Mobile chlorination facilities</li> <li>- What else?</li> </ul>	R? S? C?	R? S? C?	R? S? C?	R? S? C?
9	Isolation of suspect and confirmed patient	Provide technical and infrastructural means to set up an Isolation units	<ul style="list-style-type: none"> <li>- <b>Mobile, modular isolation units for individual and cohort isolation</b></li> <li>- Fences and danger signs</li> <li>- What else?</li> </ul>	R? S? C?	R? S? C?	R? S? C?	R? S? C?
<b>Active Case Finding, Contact Tracing, Quarantine and Psychosocial Care</b>							
f	Active Case Finding, Contact Tracing, Quarantine Psychosocial care Pastoral care		<ul style="list-style-type: none"> <li>- <b>Means of Transportation</b></li> <li>- Mobile IT, GIS, data connectivity</li> <li>- Material incentives for contacts</li> <li>- Quarantine facilities</li> <li>- <b>PPE</b>. What else?</li> </ul>	R? S? C?	R? S? C?	R? S? C?	R? S? C?

**Table 2:** Typical outbreak management issues Part 2: Primary logistics management actions and corresponding key resources. The latter are marked orange if great amounts are needed and misallocation and/or scarcity may be an issue. The resource is marked red if the technical or financial expenses are exceptional. In either case, an EAC level contribution could facilitate the operation.

<p><b>F. Surveillance and epidemiological investigations</b></p> <ul style="list-style-type: none"> <li>- Syndromic surveillance,</li> <li>- Case-definition based surveillance</li> <li>- Vector-surveillance</li> <li>- Cross-border surveillance</li> <li>- Outbreak Investigation</li> </ul>	<p><b>G. Social Mobilization, risk and crisis communication</b></p> <ul style="list-style-type: none"> <li>- Information sharing</li> <li>- Public Relations Policies</li> <li>- Distribution of Information, education, communication material (IEC material)</li> <li>- ICT support</li> <li>- Media support</li> </ul>
<p><b>H. Veterinary Services</b></p> <ul style="list-style-type: none"> <li>- Culling</li> <li>- Control of animal movement</li> <li>- Confinement / Quarantine of animals in affected areas</li> <li>- Proper disposal of carcasses and contaminated materials/ vehicles</li> <li>- Implementation of preventive veterinary measures, e.g. vaccinations</li> </ul>	<p><b>I. Maintaining public services, state and legal order during complex outbreaks</b></p> <ul style="list-style-type: none"> <li>- Adherence to established public and veterinary health programs</li> <li>- Maintaining livelihoods of affected populations</li> <li>- Sustaining uninterrupted operations of public services</li> <li>- National Security</li> <li>- Crowd- and riot control</li> <li>- Freedom of movement</li> <li>- Protecting economy, trade and tourism</li> </ul>
<p><b>J. Cross-sectional Aspects</b></p> <ul style="list-style-type: none"> <li>- Establish storage and distribution mechanisms</li> <li>- Establish a Logistics Management Information System</li> <li>- Logistics chain management,</li> <li>- Coordinate with customs for clearance of material</li> <li>- Procurement, transportation and provision of supplies</li> <li>- Maintenance of technical devices</li> <li>- Mobility management</li> <li>- Inventory management</li> <li>- Air Medical evacuation</li> <li>- Handling in kind donation</li> <li>- Accommodation for volunteers</li> <li>- Provision of storage and distribution facilities</li> <li>- Waste management</li> <li>- Reporting and Evaluation</li> </ul>	<p><b>K. Operations Support</b></p> <ul style="list-style-type: none"> <li>- Human Resource Management</li> <li>- (One Health) Intelligence</li> <li>- Command, Control, Communications</li> <li>- Education and training</li> <li>- Civil-military coordination</li> <li>- Exercise and Simulation</li> <li>- Monitoring and scientific follow-up</li> <li>- Budget mobilization and accounting</li> <li>- Staff health, security and insurances</li> <li>- International relations and coordination</li> <li>- Horizontal and vertical inter-institutional liaison and coordination</li> <li>- Deployment of contingents, teams and specialists</li> </ul>

**Table 3:** Typical logistical outbreak management issues Part 3: The critical resources required to cope with these issues are to be identified.

### **SOP-Task #3**

#### **Define the Primary Functions of Logistics Management for the outbreak at hand!**

1. Use table 1 – 3 to identify the specific issues, the primary logistics management activities and the key resources of a specific outbreak scenario (exercise) or the current outbreak emergency. Ask for each system A to K:
  - What else is needed?
  - What are my responsibilities?
  - What should be logistically supported or coordinated through the EAC regionals level?
2. Negotiate the logistics management role of the EAC level with the political decisionmaking level mediated through the Regional Coordinating Officer.



## 4. EAC LOGISTICS MANAGEMENT COORDINATION

There is no One Health approach to outbreak management without logistics. This chapter deals with the tremendous investments in logistics management coordination to make One Health a practical outbreak management entity beyond its value as a metaphor. In other words, there is no One Health approach without coordination. This is especially true if there is a lack of resources and power at a supra-national level. It is arguable that the real strengths of the EAC level logistics management lie in coordination functions rather than in direct operational support. This chapter is entirely dedicated to these logistics management coordination challenges with respect to outbreak preparedness and response within the EAC region. It is about maintaining balance: balance between conflicting interests, balance between varying needs and between different primary activities and, not least, balance between the different roots of One Health, e.g. between human medicine and veterinary medicine.

It would be unrealistic to expect that those balancing tasks are purely technical by nature. They will likely create tensions, conflicts and dilemmas that are to be negotiated between the technical and political levels and the stakeholders involved.

This chapter is divided in sections about current agreements, pending agreements, and an outlook to a possible future Joint Outbreak Preparedness and Response Logistics Management Information System (JOPR-LMIS).

This chapter of the SOP owes much to the SASOP - STANDARD OPERATING PROCEDURE FOR REGIONAL STANDBY ARRANGEMENTS AND COORDINATION OF JOINT DISASTER RELIEF AND EMERGENCY RESPONSE OPERATIONS. Some of its regulations could be taken over literally. With this document, the ASEAN Member States aim to coordinate their regional emergency preparedness and response. In so far, they are in a similar situation like the EAC Partner States. However, comparing the two regions, the degree of integration and harmonization of national regulations as well as the resources available differ significantly.

Users of this Logistics Management SOP are nevertheless encouraged to actively exchange information and lessons learned with their counterparts e.g. in the ASEAN, ECOWAS or EU regions.

## 4.1 Procedural considerations relevant for the logistical coordination resulting from agreements between the Partner States

### The National Focal Points

4.1.1 The EAC Contingency Plan<sup>2</sup> lays the foundation of EAC outbreak preparedness. It provides that each Partner State shall designate a National Focal Point for the implementation of the Contingency Plan at national level. This National Focal Point (NFP) is an entity authorized by each Partner State to receive and transmit information pursuant to the provision of the agreement.

4.1.2 The NFP plays a critical role in facilitating coordination and communication among the partners. It serves as the single point of contact for the country. The NFP is also required to coordinate with other competent authorities at national level.

4.1.3 As to logistics management, the NFP is a relay station in the communication between the EAC level and the national authorities involved in the logistics management of outbreak emergencies, e.g. regarding the approval for the processing of requests and offers for assistance.

4.1.4 Each Partner State shall inform the EAC Regional Public Health Emergency Operation Centre and the Regional Operations and Logistics Officer of its NFP and designated national authorities for public health emergency logistics as well as of any subsequent changes in their designations.

4.1.5 The NFP shall provide contact details of the national operations center that shall work on a 24/7 basis (24 hours 7 days a week). These operation centers will help the NFPs, among others, in receiving or transmitting initial reports/situation updates from/to the EAC Regional Public Health Emergency Operation Centre or other parties. Each Party shall update the above information every January and July of the year, or whenever there are any significant changes.

### Inventory of National Outbreak Management Assets and Capacities

4.1.6 The Partner States, the EAC Regional Operations and Logistics Officer (ROLO) and other supporting organizations (summarized hereafter as 'parties') shall update information on their outbreak management assets and capacities every January and July of the year, and whenever there are significant changes. All information given shall be non-binding and do not pre-empt any future national decisions on regional outbreak support contributions or future regional EAC standby arrangements.

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<sup>2</sup> The East African Community Regional Contingency Plan for Epidemics due to Communicable Diseases, Conditions, and other Events of Public Health Concern (2018 – 2022)

#### Outbreak Response Directory

4.1.7 Specifically, each Party shall voluntarily provide information on the key government and private or civil society agencies that have outbreak management capacities that could potentially be engaged, involved or mobilised to support the regional outbreak response. Details required include the roles and functions of these agencies trained, skilled and equipped to perform outbreak management operations, e.g. infectious case management, active case finding, contact tracing, (ring) vaccination, social mobilisation, surveillance, safe and dignified burials, laboratory diagnosis of highly-infectious pathogens, animal culling and carcass disposal etc.

#### Emergency Stockpiles

4.1.8 Each Party shall provide the description of the capabilities, quantity, and specifications of emergency stockpiles of outbreak management items. Especially relevant details required for both human and veterinary medicine are stockpiles of vaccines, anti-infective drugs, personal protective equipment (PPE), mobile laboratories for diagnosing highly infectious pathogens, incinerators, body bags, water treatment and chlorination systems, disinfectants, etc.

#### Outbreak Management Expertise and Technologies

4.1.9 Each Party shall provide data on expertise and technology resources available for outbreak management which could potentially be deployed to support a joint outbreak response operation. Details required are specific expertise of the outbreak management professionals and practitioners e.g. specialties and experience in incident command, emergency public health, epidemiology, human case management, veterinary public health, laboratory diagnostics, entomology, risk communication or logistics management, and available technologies to support the outbreak response operations.

4.1.10 The EAC Regional Operations and Logistics Officer (ROLO) shall fuse and contract this information in an inventory that is accessible to all parties and distribute an update report to all parties every February and August of the year.

#### Request for Assistance/Offer of Assistance

4.1.11 The NFP of the affected party shall, if it needs assistance in the event of a disaster emergency within its territory, request such assistance from any other Party through the EAC Regional Coordination Officer, or, where appropriate, from other entities. The assisting entity shall acknowledge or respond to the request immediately, preferably within 6 to 12 hours.

4.1.12 An Assisting Entity may also initiate an offer of assistance to mobilise its earmarked assets and capacities and other resources not previously earmarked for outbreak response through the EAC Regional Coordinating Officer. The Receiving Party shall

acknowledge or respond to the offer of assistance immediately, preferably within 6 to 12 hours.

#### 4.2. Pending Agreements between the Partner States that could be supportive of the logistical outbreak management challenges in the region

The provisions for an effective operational, supportive and coordination role of the EAC level beyond the Partner State assets are not completed yet. However, there is a clear intention to close the current gaps concerning emergency funds, human resources and, not least, the joint procurement and centralized storage of critical outbreak management supplies. The EAC logistics management of complex outbreak emergencies is directly affected by this emerging 'level of ambition'.

Regional standby arrangements to support joint outbreak response operations could comprise assets, such as:

- National military and civilian assets and capacities earmarked for joint outbreak response operations,
- Centralized emergency stockpiles of outbreak management items,
- Joint human resource development,
- Jointly used training and exercise facilities,
- A network of predesignated areas as entry points for supply and expertise from assisting entities,
- Pre-arranged procedures to facilitate the transit or entry through such areas of duly notified personnel, equipment, facilities and materials involved or used in the assistance to the requesting or receiving party,
- Exemption from taxation, duties and other charges of a similar nature for such equipment, facilities and materials and
- An appropriately dimensioned and jointly reimbursed EAC budget (as already defined in the Contingency Plan<sup>3</sup> but not available yet). Two major budget lines are distinguished:

- (1) Maintenance of the crisis management structure (yearly budget)
- (2) Establishment of an Emergency Fund (baseline fund with defined mechanism to top up if funds are exhausted) which (a) shall fund the activities of the crisis management structure during the emergency response and (b) meet the costs of deploying the

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<sup>3</sup> The East African Community Regional Contingency Plan for Epidemics due to Communicable Diseases, Conditions, and other Events of Public Health Concern (2018 – 2022)

Rapid Response Team for a joint regional response during public health emergencies.

### 4.3. A Joint Outbreak Preparedness and Response Logistics Management Information System (JOPR-LMIS)

Information is the engine that drives the logistic cycle. Therefore, a Logistics Management Information System (LMIS) is the backbone of supply chain management not only but especially in a complex outbreak emergency. All EAC Partner States use such an LMIS for Health System Logistics; however, they use different systems on different platforms. As of now, there is no joint LMIS on EAC level. Consequently, there could be both a focus on the harmonization of the different national LMIS and a stepwise development of Joint Outbreak Preparedness and Response LMIS (JOPR-LMIS) at EAC-level. The functional scope of such a system should reflect the increasing regional level of ambition as far as self-sustaining operations, support, coordination and information in the fields of outbreak and disaster response are concerned.

Table 4 in Annex A suggests the functional scope of such an EAC LMIS exemplarily from a purely technical point of view. However, the development of an LMIS demands significant resources and a political level prioritization, buy-in and support.

### **SOP-Task #4 (only for EAC secretariat level, especially the RCO and the ROLO)**

**Guarantee that all information defined in section 4.1.1 to 4.1.10 are provided by each Partner State and contain up-to-date information.**

1. Fuse and contract the data provided.
2. Identify critical gaps in the logistical outbreak preparedness of the EAC region.
3. Summarize your findings in a concise report.
4. Share the report via RCO and Health Department with the EAC Secretariat and the NFPs.

## Annexes

### Annex A: Functional scope of an EAC LMIS exemplarily from a technical point of view<sup>4</sup>

	EAC operations	EAC support	EAC coordination	EAC information
<b>Inventory Management</b>				
Purchase order workflow	?	?	X	X
Print official purchase order (invoice)	-	-	-	X
Receipt workflow	-	-	-	X
Print official receipt invoices	-	-	-	X
Requisition, rationing, & approval workflow	-	X	X	X
Dispatch	?	X	X	X
Print pick list	-	-	-	-
Print dispatch invoice	-	-	-	X
Dispatch confirmation at physical stores	?	-	-	X
Losses and adjustments at physical central stores	-	-	-	X
Batch number tracking	-	-	-	X
Managing donated commodities	?	X	X	X
Manages RDF (Revolving Drug Fund)	-	-	-	X
Moving average costing	?	-	-	X
Pricing, margin, & overrides	?	-	-	X
Invoicing	?	-	-	-
Returns management	?	-	-	X

	EAC operations	EAC support	EAC coordination	EAC information
<b>Warehouse Management</b>				
Receipt workflow	?	-	-	X
Requisition processing	?	-	X	X
Requisition approval processes	?	-	-	X
On-spot analytics capabilities on approval	?	-	-	X
Batch tracking	?	-	-	X
In warehouse expiry tracking	?	-	X	X
First-to-expire, first-out (FEFO)	?	-	X	X
Pick list	?	-	-	-
Issue confirmations	-	-	-	X
Pick face management	-	-	-	-
Warehouse location types (cold chain, rack, shelf, controlled)	?	-	X	X
Batch tracking (in warehouse)	-	-	-	-
Batch tracking (to whom a certain batch has been dispatched to)	?	-	-	X

<sup>4</sup> Adapted from eLMIS Selection Guide (USAID 2017): [www.ghsupplychain.org/resource/elmis-selection-guide](http://www.ghsupplychain.org/resource/elmis-selection-guide)

	EAC operations	EAC support	EAC coordination	EAC information
<b>Cold Chain/Asset Management</b>				
Cold chain 2–8°C	?	-	-	X
Cold chain -20°C	?	-	X	X
Cold chain -60°C	?	?	X	X
Ice box and vaccine carrier	?	?	X	X
Ice packs	?	-	-	X
Power generators	?	?	X	X
Voltage stabilizers	?	?	X	X
Vehicles	X	X	X	X
Reports	X	-	X	X
Cold chain capacity calculation at 2 – 8°C	?	-	-	X
Cold chain capacity calculation -20° C	?	-	-	X
Inventory reports	?	-	-	X
Storage reports	?	-	-	X
Assets reports	?	-	-	X
Cold chain graphs	?	-	-	-
Cold chain assets transfer	?	?	X	X
Cold chain assets status update	?	-	-	X
Cold chain assets searching	?	-	-	X
<b>GIS—Web Mapping</b>	?	X	-	X

	EAC operations	EAC support	EAC coordination	EAC information
<b>Vaccination (Special Immunizations Activities) Campaigns Management</b>				
Campaign types data	?	?	X	X
Campaign editions	?	?	X	X
Vaccine selection	?	?	X	X
Readiness reports	?	?	-	X
District level		?	X	X
Teams level		?	X	X
National indicators	-	-	-	X
Campaign days data entry	-	-	-	X
Catchup days data entry	?	-	-	X
LQAS reports		X	X	X
Campaign reports	?	?	X	X
Catchup reports	-	-	-	X
Donated Commodity Management	?	?	X	X
Configurable program areas	?	-	-	X
Funding source management	X	-	X	X

	EAC operations	EAC support	EAC coordination	EAC information
<b>User and Roles</b>				
Supports access control by program area				
Warehouse supported				
User role by store				

	EAC operations	EAC support	EAC coordination	EAC information
<b>Other Features</b>				
Capture report and requisition from facilities	?	-	-	X
Ability to view reports and requisitions	?	-	-	X
Approval procedures that include geographic structures (district, region, central, etc.)	-	-	-	-
Placing order after approval procedures	?	-	-	-
Proof of delivery at warehouse level Proof of delivery at facilities	?	-	-	X

	EAC operations	EAC support	EAC coordination	EAC information
<b>Reports</b>				
Real-time current stock status	?	-	-	X
Stock status trend analysis	?	-	-	X
Consumption trend	?	-	-	X
Losses and adjustments	?	-	-	X
Aggregate consumption report	?	-	-	X
Order fill rate report	?	-	-	X
Reporting rate report	?	-	-	X

	EAC operations	EAC support	EAC coordination	EAC information
<b>Integration</b>				
Sends order				
Receives shipment data				

	EAC operations	EAC support	EAC coordination	EAC information
<b>Lab Logistics</b>				
Facility equipment inventory	X	?	X	X
Support contract management	X	?	X	X
Maintenance logistics management	X	?	X	X

**Table 4:** Potential functional scope of a future EAC LMIS exemplarily from a technical point of view



	Approved by	Authorized by
Designation		
Name		
Signature		
Date		