OCA CHAD UNALLOCATED STOCKS

EVALUATION OF A CENTRALISED "UNALLOCATED" INVENTORY MANAGEMENT EXPERIMENT

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MSF OCA Chad Unallocated Stocks – Evaluation of a Centralised "Unallocated" Inventory Management Experiment, by Stockholm Evaluation Unit

ACRONYMS

AMC	Actual Monthly Consumption
ARV	Anti-Retro Viral drugs
BO	Back Officer
CERU	Chad Emergency Response Unit
DAC	Development Assistance Committee of the OECD
DRC	Democratic Republic of Congo
E-prep	Emergency preparedness
ESC	European Supply Centres
FMC	Forecasted Monthly Consumption
FO	Front Officer
FBSC	Field Based Supply Consultant
FSU	Field Support Unit (Logistics Department)
GSDP	Good Storage and Distribution Practices
HQ	Headquarters
HR	Human Resources
ILO	International Logistics Order
IMO	International Medical Order
KPI	Key Performance Indicator
MIM	Medical Inventory Management
MSF	Médecins Sans Frontières
MSR	Monthly Stock Report
OCA	Operational Centre Amsterdam
OECD	Organisation for Economic Co-operation and Development
Ops	Operation Department
PHD	Public Health Department
SOP	Standard Operating Procedure
TSR	Total Stock Review (supply monitoring tool)
WHO	World Health Organisation

GLOSSARY

As there is currently no broad agreement amongst the different Operational Centres of Médecins Sans Frontières (MSF) on the definition of the different inventory management strategies, it has been agreed that the terms to be used are those proposed by the Medical Order and Inventory Management Intersection Working Group during the phase two of the "MSF Supply Chain Mapping" consultancy, performed by Deloitte Consulting in 2016.[1] To ensure clarity, the evaluator has augmented some of the definitions.

In addition, this glossary provides the definitions used by MSF OCA for their supply chain Key Performance Indicators.[2]

Inventory Management Strategies

Centralised - Unallocated	• Inventory is strategically held in one location for more than one project • Synergies are taken into account when ordering (i.e. reducing total safety stock) • Stock per project is no longer distinguished. Project orders filled based on demand • This model is also referred to as Centralised - Neutral
Centralised - Allocated	• Inventory is strategically held in one location for more than one project • Synergies are taken into account when ordering (i.e. reducing total safety stock) • As in the classic decentralised system, distinctions remain between projects' stocks. 'Donations' or 'loans' transactions are made between projects' stocks • This model is also referred to as 'Delocalised'
Decentralised	• Inventory is strategically decentralised at or near project location • Synergies are not taken into account when ordering • Stock may be transferred between projects in some contexts
Mix of centralised & decentralised	• Some products are strategically held in one location for more than one project, while other products are held by each project • Alternatively, one mission could include a centralised and decentralised stock • Inventory held centrally may or may not be allocated to a project

Key performance indicators

Rupture	• A rupture on a product that cannot be resolved in time, with all alternative solutions having been considered (replacing, changing protocols, borrowing from a third party…)
Overstock	• Overstock is a cumulative indicator adding all the rotating stocks in quantities exceeding 1 year of consumption and all grey or sleeping stocks
Losses	• Expired or damaged goods in the stores • Donations to avoid expiries
Sleeping Stock	• Items present in the stores but no longer in use in the project or mission. Also referred to as 'grey stock'

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[1] MSF Supply Chain Mapping - Phase 2 - WG1 Medical Order and Inventory Management vf; Deloitte Consulting 2016
[2] 4W-1-EN- stock monitoring sheet project v12

EXECUTIVE SUMMARY

INTRODUCTION

In 2012 MSF OCA's mission in Chad was running a so-called anchor project in Am Timan while responding to various emergencies in the rest of the country. Those emergency responses were opening and closing at fast pace and were sustained by supplies from the anchor project.

In addition, difficulties were encountered regarding the capacity of the Chadian labour market to yield skilled supply personnel, and of the Head Quarter (HQ) to find experienced international staff. The mission's overall storage conditions were poor and all locations required large investments to reach minimum standards for space and quality.

Therefore, during the course of 2012, MSF OCA in Chad decided to change the inventory management system from a decentralised model to a centralised unallocated one, based in the mission coordination centre in N'Djamena.

The scope of the present evaluation is to analyse, a few years down the line, how this decision was defined, supported and deployed. It intends to determine whether it was in line with the initial needs and whether it has fulfilled them, as well as to compare its performance against a classic decentralised model.

The evaluation follows OECD Development Assistance Committee (DAC) criteria and concentrates on determining the Relevance, the Appropriateness, the Effectiveness, the Efficiency and the Replicability of the deployment of a centralised unallocated inventory management in OCA's mission in Chad.[3]

To base our findings, we reviewed project and institutional documents, guidelines and policies, and analysed management and monitoring databases - although the latter transpired to be too weak to support proper quantitative analysis. We also conducted semi-structured interviews with stakeholders involved both at mission and HQ level to compile qualitative historical and perceptive data.

FINDINGS AND CONCLUSIONS

While all parties agreed in 2012 on the initial need to review the mission's supply organisation in order to mitigate ruptures, overstocks and losses, to enhance the quality of the storage in all locations, and to cope with the lack of qualified supply human resources, not all stakeholders were involved in designing the solution, and the logistics department was mainly responsible for both the decision and its implementation throughout.

Not recognising the centralised unallocated inventory management as a pilot project meant that OCA did not dedicate sufficient resources and follow-up to accompany its deployment. It also meant that the logistics department had to cope with the institutional constraints like the financial one, imposed by MSF's accounting model. As a result, the model deployed is a mix of (physically) unallocated and (financially) allocated management.

If the mission supply's specific policies were adapted promptly after the inception of the project, it took about two years for OCA to develop dedicated tools for the model. In the meantime, the field teams were left to cope with the deployment based on their own understanding, time, and will. The project therefore underwent several setbacks in its deployment in 2013 and 2014 before a fresh restart in early-2015, when the first concept note was written to help the mission staff in their understanding of the centralised unallocated model.

The tools remained unstable for another two years and are still regarded as inappropriate for a sound inventory management system. Five years later, OCA's policies do not consider unallocated management as a potential model for its activities.

So far, the model has not demonstrated improved performance in responding to one of the initial goals - that being fewer ruptures, overstocks and losses - and Chad is still among the lowest performing countries in this respect. However, it should be noted that the quality of reporting over the years has been inconsistent, making any change hard to trace. Overall, the definitions and appropriateness of the performance indicators are also questionable in relation to the monitoring of this specific unallocated inventory management model.

Nevertheless, the pooling of resources did function. For example, despite that the initial idea to dedicate specific trainings to the supply teams barely materialised, the steady improvement of the human resources working in

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[3] https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

coordination contributed to developing support to field operations during openings, to gap filling, and more recently to coaching and trainings.

The overall set-up of the centrally managed inventories has also allowed for teams in the field to be kept less numerous and the infrastructures maintained on a smaller scale, which the current project stakeholders definitely consider appropriate.

The fact of having smaller stocks and a close to lean management replenishment pattern in the projects has, after some years, triggered a change in the method for calculating those replenishments. Indeed, as calculations were initially based on forecasted monthly consumptions, the switch to actual monthly consumptions (according to the health facilities tally sheets and the Consumption Tool) is producing a net improvement in the accuracy of the orders. It forces a close monitoring and continuous adjustments of the consumption figures, which have a good chance of being sustained after the departure of the current teams and improving the overall supply chain.

Indeed, during this evaluation every stakeholder has acknowledged that the inventory management is still highly reliant on the capacity and skills of the expatriate teams, as well as on their willingness to collaborate between medical and logistics staff. Any improvement of the supply chain therefore remains fragile, regardless of the model implemented.

It is unfortunately impossible at the time of this evaluation to support the qualitative analysis of the benefits of the centralised allocated model with quantitative data, as all the databases have been filled inconsistently over the years and some fields or specific analytical axes are missing which precludes the extraction of the necessary information.

Nevertheless, overall the model is good and responds appropriately to the Chad mission rationale, which is still "one anchor project and responses to outbreaks and displacements emergencies".

To be complete, this inventory management model would benefit from a full deployment, which implies becoming both physically and financially unallocated. Accurate definition of appropriate performance indicators and analytical axes would also benefit the deployment and qualify the model for addition to the inventory management strategies available for deployment in different MSF contexts.

RECOMMENDATIONS

⇒ **Recommendation 1: To the desk**

Go Neutral! Complete the model and deploy a fully-centralised unallocated inventory management.

Create a steering committee to ensure institutional buy-in and to recognise the project as a pilot.

Ensure database consistency to be able to follow the model through time objectively.

⇒ **Recommendation 2: To the Field Support Unit**

Acknowledge the pilot project to dedicate means and to allow appropriate support.

Rethink & streamline the Tools to simplify the daily work and enable good management and monitoring.

Review the indicators to reflect the centralised unallocated strategy.

⇒ **Recommendation 3: To the Finance and Control Department**

Support the model by participating in the development of the centralised unallocated inventory management model and proposing a satisfactory workaround to the accounting constraints.

⇒ **Recommendation 4: To the Mission**

Build up a training plan for the national and international staff working in and with supply activities to ensure continuity and improvement of the current situation.

Prepare for Am Timan closure, new project opening, and next emergency deployment.

Send continuous feedback to the Desk / Steering Committee to ensure continuous adaptation and improvement.

INTRODUCTION

PROJECT BACKGROUND

Standard MSF OCA projects follow a standard inventory strategy defined by the OCA supply guidelines. In Chad, the norms were not seen as adequate to support the operational strategy which both runs "long-term" projects and responds to emergencies with projects of limited durations. The impact of the shortcomings of the standard inventory strategy was mainly felt at the anchor project (Am Timan), as its stocks were used as seed stocks for emergencies, thus preventing the project from properly managing its own stocks and increasing the complexity of following up consumption.

In addition, in Am Timan, one of the long-term project sites, the warehouse was deemed too small to hold the stocks forecasted for the normal project activities; as such, other project sites, such as Bokoro, Biltine, etc., needed to have proper warehouses as well. As a general issue, the warehouses of the Chadian mission were not compliant with the minimum standards for storage conditions and therefore, regardless of the adoption of a centralised or a decentralised strategy, there was a need for investment.

The rationale behind having a central stock is available in the Field Support Unit (FSU) Front Officer (FO) trip report of July 2012. In summary, the main reasons for the push for a centralised model were the lack of available qualified staff for short-term projects (emergencies) and the occurrence of continuous overstocks and ruptures that plagued the mission. In addition, the costs of setting up appropriate structures on project sites capable of holding all project stocks while meeting storage condition requirements appeared prohibitive.

Investing in proper warehousing (Centralised Model Strategy) and having trained local human resources was perceived as a valuable investment for the mission. The Chad mission started to implement a <u>centrally managed inventory</u> strategy (also referred to as central "neutral"/financially unallocated stock) in early-2013. After two years of preparation and failed attempts, a fresh restart took place at the very beginning of 2015.

MSF OCA internal audits, while agreeing that the concept of centralised inventory management was sound, raised concerns regarding the existing constraints of the strategy and pointed out during their audit in 2013 that its physical implementation lacked necessary administrative tools and procedural guidance. Similarly, logistics field support visits expressed the same concerns on the lack of adapted tools. This was understandable, as the mission had proceeded with the implementation of a centralised inventory management strategy using existing MSF tools normally tailored for a decentralised strategy.

However, recognising the need for Standard Operating Procedures (SOPs) and tools to support the central stock in Ndjamena, the Field Support Unit (FSU) and Logistics Coordinators focused on the development of SOP and putting tools in place to support the smooth functioning of the central stock management in Ndjamena, as foreseen and recommended in 2012.

As Chad is the only OCA mission with a centralised inventory management, it is essential to develop an understanding as to how inventory management outside the standard norm has benefited such a mission, as well as to reflect on its original intended purpose.

EVALUATION SCOPE

The overall objective of this evaluation is to assess the potential comparative advantages of having a centralised system in Chad as opposed to a decentralised system; and, to reflect on the relevance, appropriateness, effectiveness, efficiency and impact of the supply system for programme implementation. It provides an independent appraisal of the implementation of a centralised stock management in Chad compared to the standard MSF OCA decentralised strategy of stock management on mission supplies.

This evaluation assesses the relevance of the centralised stock designed strategy from its inception, the appropriateness of its execution, and the effectiveness of its implementation, and considers whether the expected outcomes of improvements in staff performance, reduction of stock ruptures and overstocks, and overall improvement of supplies in the mission have materialised.

In addition, it assesses the efficiency of the strategy and whether the expected improved responsiveness represents the best use of resources, and whether adequate tools have been put in place to ensure due processes and accountability.

Ultimately, this evaluation assesses whether the centralised stock strategy has met its main objective of adequately responding to the needs of the mission for both anchor and emergency projects; furthermore, being informed on the effectiveness of the inventory strategy in Chad will be of benefit at desk and operation levels at large, will assist the MSF OCA internal audit, and may potentially pave the way for a broader application of this strategy in other missions.

METHODOLOGY

The evaluation was conducted in April 2018. The mission in Chad was visited for ten days at the beginning of the month.

The evaluation uses a combination of qualitative and quantitative approaches and uses data and information collected from the following sources:[4]

- Review and analysis of project documents;[5]
- Review and analysis of MSF policies and guidelines, as well as WHO GSDP Annexes;[6]
- Interviews with key staff at HQ and field levels;[7]
- Physical observation of the warehousing facility in N'Djamena.

A visit to N'Djamena took place at the beginning of the evaluation to conduct on site interviews, assess the warehousing facilities and collect documents. Unfortunately, the anchor project of Am Timan was not visited due to administrative issues. As a result, interviews with the Am Timan team were conducted via Skype and phone and the Am Timan warehouse was not assessed.

The selection of the interviewees was designed to represent all stakeholders working in, or benefitting from, the supply chain in the mission (logistics and more specifically supply staff, medical staff, financial and HR staff), both representing the coordination and the project levels in all the professional groups of the function grid.[8]

Support services stakeholders were also part of the interviewees (HQ staff directly supporting the mission – desk, pharmacy, supply back office). The internal OCA audit team was also interviewed to confront the consistency of the policies applied.

All interviews were semi-structured, allowing the questions and answers to follow the matrix elaborated during the inception phase of the present evaluation, while also leaving room for relevant digressions.

Apart from qualitative narrative reports, the review of the selected project documents transpired to be more complicated than predicted; it emerged that the databases are incomplete or lack consistency, thus impeding the relevance of the extractions from which to draw conclusions.

The evaluation's findings therefore rely principally on its qualitative approach.

LIMITATIONS

The quantitative analysis, which mainly relates to the appraisal of cost efficiency aspects, has been limited by the difficulty of extracting financial, stock management, and consumption data; similarly, analysis of the evolution of the human resource supply set-up and the evolution of the staff themselves has been limited. All fields are not always filled in on the different databases and the information therefore lacks consistency. For example, supply reporting does not exist for most of 2015, several staff have multiple identification numbers in Homere (the HR database), and the rental costs of premises is often described by a payment to the name of the owner. The chart of accounts has changed between 2013 and 2014, making comparison even more complicated.

In addition, the institutional evolutions and qualitative improvements (GSDP, software deployments, IRFFG, etc.) will all bear financial implications and accordingly affect cost comparability over the years.

Comparison with other OC supply practices in the country is limited to the actual differences in approach and the perceived effectiveness by the main logistics stakeholders.

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[4] See evaluation Matrix in Annex IV
[5] See list of reviewed documents in Annex III
[6] Ibid.
[7] See list of interviewees in Annex II
[8] http://irffg.msf.org/oc/oca/function-grid

During the visit to the Chad mission, a field visit was planned to Am Timan project to conduct interviews and physical observation of the storage conditions. Unfortunately, this was not possible due to a delay in obtaining the official travel permit. This situation was somewhat mitigated by conducting interviews with six of the main field stakeholders through Skype and phone; however, the storage facility was not visited.

One main anticipated limitation was the difficulty in finding historical knowledge due to high staff turnover and a weak archiving system. While the archiving system is indeed weak, the presence of long-term staff in Chad and in HQ has transpired as better than expected. Many of the national staff involved in supplies are still present in the mission, some expatriate positions are filled by people returning to work in the mission a second time, and HQ staff have been quite stable.

FINDINGS

RELEVANCE

One of the objectives of the present evaluation is to assess the relevance of the unallocated stock strategy's design from its inception and its relevance to both the identified needs and the frame proposed by OCA's policies.

An unallocated or neutralised stock management strategy is a process in which all goods are stored in one single location (usually in capital-coordination) and the items are redistributed to the projects on demand. It contrasts the decentralised strategy where projects directly own and manage their stocks, usually on site.

Needs Assessment and Strategic Design

From the documentation review and interviews, it does not appear that an actual cross department needs assessment took place regarding the decision that was taken to centralise the stock management in coordination.

A primary situation assessment can be found in the Field Based Supply Consultant (FBSC) report following her visit to Chad during the spring of 2012.[9] She found a situation in need of urgent action, as many non-standard procedures and tools were being used in the mission, and numerous problems were occurring along the supply chain. In July 2012, 3 months later, a follow up visit was conducted by the Field Support Unit Front Officer (FSU-FO) of the Berlin Desk, and a more thorough description of the Chadian context of operation for OCA regarding supply management can be found in his report.[10] The reasons cited for the shift to a centralised supply system in coordination, where resources could be reinforced and pooled for the benefit of the entire mission, were the rapid opening and closure of emergency projects; the overall investments required to bring the warehousing to quality and security standards throughout the mission; the limited skills and expertise available in the Chadian labour market; and the high turnover of first time expatriates in the projects. According to the HQ interviews, the inclination to move to an alternative supply strategy was shared mainly amongst operational and logistical lines.

During the FSU consultancy in 2012, the decision was taken to organise a workshop to define which kind of centralised supply model should be implemented in the mission. At this stage, it was already decided that supply management should be centralised, leaving only the decision to be made between an unallocated model, where stocks are pooled in one location and administration, and a delocalised (or allocated) model, where the stocks remain the responsibility of the projects but are physically managed in a central warehouse.

This workshop was organised in October 2012 in N'Djamena, with a combination of field and capital logisticians and medical staff, mainly expatriates, and was held in English. The ensuing report highlights as a key outcome the willingness from the audience to move forward in the implementation of a centralised supply system.[11]

There is no documentation or record of the rationale behind the decision to choose an unallocated model, instead of an allocated model where the stocks still fully belong to the projects; additionally, according to the different HQ stakeholders, support for it is not broadly shared. Interviews indicate that a number of HQ stakeholders at the time would have preferred to retain a more common allocated central inventory management, while other stakeholders indicated that they were not even aware of the decision to neutralise the inventory and only learned of the transition while visiting the mission later in the process.

Needs and Objectives Concordance

It does not appear that any comparative study on the pros and cons of the different solutions to address the identified needs was carried out, and no modelling of the existing options and alternatives was performed (reinforcing the decentralised system, shifting to an allocated central stock management like in South Sudan, neutralising the inventories in a common management, etc.).

Similarly, no intersectional research was done at that time to investigate if any other MSF Operational Centres had implemented a similar model of unallocated central stock management in the past, the rationale for implementing it, and the potential constraints and outcomes.

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[9] FBSC Trip Report Chad _ 2012
[10] TD 2012-07 FSU Consultancy
[11] Chad Med Supply Workshop Report Light

However, the primary objectives of the neutral stock do address the needs identified at the time by simplifying field work, streamlining field management, and allowing improved sharing of resources. In addition, by reinforcing the supply team in the capital, support available to the field was increased.

Policies and Deviation

In June 2012, the OCA Supply Guidelines (2008) did not consider centralisation of stocks as a possible approach. The need to adapt those guidelines, as well as to develop a specific package of Standard Operating Procedures (SOP), had already been identified.

At the beginning of 2013, the Field Support Unit (FSU) drafted a specific Chad Supply Handbook to address the mission-specific policies and SOP. [12] [13]

The handbook was never finalised; however, it does clearly describe the processes to follow, as well as how the model circumvents the organisational accounting model by assigning all expenses by location, thus allowing the financial allocation of stocks and quantities to be ordered through a division key proportional to the Forecasted Monthly Consumptions of the different projects.

In theory, if the model is well implemented and the tools adequately applied, the reconciliation between the expenses and the actual usage of goods by the projects is achievable.

However, it is obvious from the Handbook's description that in reality the model applied mixes unallocated physical management and allocated financial management.

It is worth noting that the 2016 revision of the OCA Supply Guidelines does not consider unallocated stocks as a potential model for MSF OCA missions.[14] Neither the 2015 nor the 2018 revision of the Chad mission-specific handbook addresses the unallocated model explicitly in the adapted mission-specific policies and procedures.

Conclusion

A superficial supply needs assessment was indeed carried out, although it did not include a large audience and was mainly restricted to FSU. The rationale to go for a centralisation of stock management is clear in the decision process; however, the reason for choosing this specific neutral model as opposed to an allocated model, wherein the field missions still own their stocks, is nowhere to be found.

At the time of the decision in late 2012, the inclination to go for unallocated central inventory management makes sense in regard to the level and nature of activities in the mission. Many projects have similar activities, and there is a fast pace of openings and closures. Investing in warehouses to bring them all up to agreed standards each time an emergency response starts is not resource efficient. Similarly, training newly recruited staff every time is also an impossible objective, and reducing their responsibilities towards the levels of stocks is an adequate solution. By implementing central inventory management, it can be expected that the resources will be better shared and overall management improved, thus reducing the impact of poor or inaccurate planning. More so, it is a common practice in logistics stocks (vehicle spare parts, generators, etc.) where its effectiveness has been confirmed.

OCA's supply guidelines and policies do not include the unallocated inventory model as a possibility and no formal deviation from the financial policies was made. This has forced the Chadian model to be half way between unallocated (regarding daily management) and allocated (regarding financial follow up), thus leaving the Chadian mission in the fringes, struggling alone with limited backing and support.

APROPRIATENESS

The rationale of the Chad mission has been and remains to have one anchor project to root the mission in the country and to respond to surging emergencies, those mainly being outbreaks or population displacements.

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[12] Supply handbook Chad -narrative
[13] Annex 12 Mission-Specific SOPs and Supply Handbook addition - Replenishment Planning
[14] Supply Guideline 2016 MSF OCA, p62 onwards

Field Perception

From the perspective of the current mission teams, opinions vary regarding the unallocated inventory management. Feedback from project teams is mainly positive, while members of the coordination teams have mixed perceptions.

The Emergency Response Unit has a very good opinion of the support and effectiveness of the centralised management of their required medical supplies (though are less positive concerning logistics needs).

The Am Timan teams have a more hectic recall of the deployment period and mentioned communication and briefings as being among the major flaws during that period. Since the stabilisation of the system in the past twelve months, the Am Timan stakeholders feel a great improvement and consider the model to be fully adequate to their setting. Lower levels of stocks mean less responsibility and enable better monitoring, and are seen as the right way to go. They have seen decreasing levels of ruptures in the pharmacy for the past six months, and link this performance to the inventory management model. This opinion is shared among expatriates and historical national staff.

In coordination, impressions are more tepid. Although the different stakeholders feel confident now that the model is running, several coordinators mentioned that the centralised unallocated inventory management is unjustifiably demanding in terms of investments (HR, infrastructure) for its low output. Coordinators also question if it is still necessary to keep an unallocated inventory management model with the recent low level of activities.

A large part of the discontent is linked to the tools, which are seen as inappropriate to deal with the mixed unallocated / allocated design of the model, and do not provide a relevant view of the project expenses allocation.

Strategy

As mentioned above, the number of stakeholders involved at the inception of the project was quite limited. The feasibility of the decision was confronted towards the standard supply policies and SOP in place in OCA, but no action plan was drawn and therefore some of the required stakeholders (HR, Finance, and Medical) were not involved in setting up the project. The need for a specific HR development plan was seen as key to enhance the capacity of the field national staff working in supplies, but was never formalised and therefore never implemented. No specific accompanying indicators were developed at the inception of the project, other than the usual set of supply key performance indicators (KPI) common to all missions. No financial analytical axes were set to specifically analyse the implementation of the model.

At the beginning, some support was given by the HQ supply back office, with the revision of the policies and dedicated SOP in early-2013. Then things got lost, with no proper briefing plan, no specific visits organised, and no specific training arranged to reinforce the knowledge of supply principles and mechanisms.

There was also no working group created - neither in HQ nor the field - to organise and accompany the shift in management, to follow up on specific issues occurring, or to support and monitor the development of the model.

Adaptations

As there was no action plan, there was no formal revision of the strategy along the way. However, a few adaptations occurred following HQ visits, but in a scattered manner as there was no overall synergy around the deployment of the model (Am Timan buffers increasing and decreasing, the use of actual monthly consumptions versus the forecasts for the monthly replenishments, etc.).

At the beginning of 2015, and following the FSU visit of mid-2014, the need for a restart was felt. That is when the first concept note describing the model was produced.[15] [16]

The priorities of the mission have remained unchanged since the beginning: one anchor project and emergency responses. Therefore, one of the main reasons to implement this model remains unchanged.

Tools

As for the SOP and supply policies in use in OCA's missions, it was identified from inception that the management tools were not adapted for managing and monitoring a neutral warehouse. The tools were especially not tailored to manage

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[15] 140520 FSU_Trip-Report_Chad_FO_2014-05
[16] Centralized Supply Model _ 2015

stocks and accounting separately. As a matter of fact, since MSF's accounting model is based on expenses alone, all expenses need to be allocated to projects. No pooling of resources is really possible in this financial set-up, and it resulted in the administration of the model being conducted in two parallel ways: the physical management of the goods, and the accounting management - the latter mainly being used at the time of international orders.

Although one could argue that LogistiX or Unifield could be configured for such use, OCA continued to monitor and manage the stock levels and integrity with Excel programmed files.[17] [18] Those Excel files therefore required thorough developments to attain a satisfying level of monitoring and management capacity, tailored to this neutral model. This development took almost two years, producing a set of cumbersome and unstable tools as reported by most of the logistics coordinators' End of Mission reports, as well as by some of the current users during the field interviews.

The tools and policies developed by OCA for Chad still need some improvement to reach an appropriate support level.

Other OCs in-Country

Two other MSF sections are present in the country: Operational Centre Paris (OCP) and Operational Centre Geneva (OCG). Their portfolio has remained rather small at currently one project each and no strong operational inclination to respond to emergencies. OCG is due to close its mission in a few months.

OCP follows a classic model of decentralised stock, while OCG implemented an unallocated stock management for their projects two years ago, keeping Eprep stocks in a separate management system. OCG in Chad has benefited from their experience in Bunia, DRC, and from a strong HQ follow-up through the Medical Inventory Management (MIM) working group. The replenishment pattern is slightly different from OCA in Chad, with International Medical Orders (IMO) every 6 months and project replenishments every 3 months.

OCG's inventory management is built in the same way as OCA's. While the resources are pooled into one physical management, the international orders are billed on projects' budgets with a theoretical division of stock levels based on consumptions at the time of ordering. They adapted their tools accordingly.

Both OCs seem satisfied with their systems; at the end of 2017, OCG had a significant amount of overstock (around 60% of the total value), while OCP had approximately 40%. OCA has a similar result for this indicator, with about 50% of overstock.

Conclusion

In theory, as it serves several projects with similar typologies, the model chosen if well deployed is sound in addressing the expressed needs and for coping with many openings and closings, and decreases the burden and the responsibility of managing large stocks on first time expatriates in the fields.

The plan was not broadly developed, nor did it involve all necessary stakeholders. Consequently, it remained an isolated initiative, without full buy-in from field to HQ. This also meant that field staff were not aware that they were partaking in a pilot project, leaving them to develop the model together in the field with their own skills and understandings.

As the finance and control teams were not involved in the setup, no proper alternative solution for the accounting system was set, and a broad understanding amongst mission and project coordinators or administrators was lacking. Indeed, the current model for accounting is that all purchases made under a project code are charged to its budget. With the implementation of the unallocated inventory management, the expenses are still booked on a project budget, but the project does not actually receive all the goods purchased.

The set of Excel tools used by OCA makes any non-standard specificity difficult to be included in inventory management, as it needs reprogramming in addition to configuration.

Mainly due to the lack of comprehensive strategy, improved supply support to the projects and the emergency responses was achieved only after a long developmental phase. In the case of the anchor project, this took even longer. At present, from a project perspective, the support and appropriateness of the model is credited with very positive feedback and fulfils the project stakeholders' expectations. On the other hand, the deployment is seen heavy and resource-demanding from the mission coordinators' point of view.

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[17] LogistiX - Integrated supply management software
[18] Unifield - Enterprise Resource Planning (ERP) software integrating finance and supply management

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MSF OCA Chad Unallocated Stocks – Evaluation of a Centralised "Unallocated" Inventory Management Experiment, by Stockholm Evaluation Unit

A quick assessment shows that the three OC present in the country all perform in comparable ways. Knowing that for two of them (OCG and OCA) a similar unallocated inventory management is deployed, while OCP is using a classic decentralised model.

EFFECTIVENESS

The effectiveness of the deployment before the end of 2014 is difficult to assess. Prior to that, supply reporting was different, so the overview is not directly available. In addition and as previously mentioned, the deployment had some interruptions between the end of 2012 and the beginning of 2015. The model really began with the deployment of the adapted tools in May 2014 and the formalisation of the concept in January 2015. During the transition period the model was closer to a centralised allocated inventory management.[19]

Limitation and Opportunities

The biggest limitations to the deployment of the model originate from the fact that it stands between an unallocated stock when it comes to the inventory management and a financially allocated stock when it comes to financial accounting. The consequence is that the performances of the central inventory management are impacted by contradictory parameters to take into account. The purpose of unallocated management - that stored items do not belong to anyone, so that they can be used anywhere and so that the assets can be managed independently - is therefore not met.

The tools developed for managing and monitoring this in-between situation (unallocated and allocated) proved to be difficult to work with. The tools are confusing and do not help the stakeholders make sound decisions.

Mitigating this limitation by completely disconnecting the central inventory from the field, including on the financial side, could potentially allow for improvements on the management side and would simplify monitoring. In turn, it would create new supply management opportunities (pooling of buffer or contingency stocks, working on average stock out levels...).

From a more operational perspective, limitations to the model's performances can be seen during the rainy season when movements are complicated and urgent deliveries to the project stores can be impeded. Such urgent delivery could result from miscalculation of the replenishment orders to the field or sudden changes in the consumption figures.

As the inventory is closer to a lean management, it is therefore much more dependent on capital strength and reactivity in case of any shortage.

By not knowing what is specifically at their disposal in the central stores, the projects can be tempted to perceive them as a local supplier for their needs and can accordingly create false expectations on the availability of goods. Systematic communication on the status of the central inventory is therefore of utmost importance to mitigate this risk.

The most prominent opportunity at present lies with the fact that field teams have much lower levels of stocks to manage. As a result, it is easier to attain a better level of field supply management. In that regard, and compared to the "Central Supply Model" document, switching the replenishment system in June 2017 from the automated minimum / maximum based on forecasts to a monthly adjustment based on the real consumptions is seen as a big improvement of the model.

There is a common consensus that the performance of the supply chain management is, regardless of the model, still very much linked to the team dynamics and management positions (Medical and Logistics), therefore depending on the dynamics within the expatriate team. The current organisation, with regular and constructive meetings around medical supplies in all locations which involve all necessary stakeholders, makes the whole system fluid. This important limitation requires an adequate answer to ensure continuity through time.

Logistics Human Resource performance

A Human Resource development plan for the supply team members was never developed or implemented at mission level. Therefore, the coaching of the supply staff only happened on an ad-hoc basis and did not follow a strict plan (i.e. the organisation of log days in N'Djamena, current task shifting and empowerment of the capital supply staff). However,

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[19] 140520 FSU_Trip-Report_Chad_FO_2014-05

over the years, the supply team members in all positions have been regularly despatched to the projects during set-ups for direct support, as well as to fill positions gaps.

The review of the individual HR files also showed a regular cycling of positions within the national supply team, with the mission favouring internal recruitment processes when possible. Overall, we can conclude from these changes in positions and from the relevant appraisals that the staff did improve over the years.

By managing a detail pharmacy, and not only emergency preparedness kits and a transit location, the skills developed by the coordination team are similar to those required in the field, and the coordination supply team can therefore support more effectively the field teams when required.

Emergencies

Improving effectiveness during emergencies was one of the main objectives for changing the inventory management.

Interviews with the Chad Emergency Response Unit (CERU) provided valuable information on the response capacity of the supply team during emergencies. The CERU does not recall any supply issues delaying any of the initial start-up phases. When ruptures happened, it was mainly due to the unforeseen scale of the emergency, and came at a later stage in the response. The CERU team has rapidly benefitted from the support of the coordination members to set up the supply chain during openings. This direct support from the capital supply team was one of the primary expected outcomes of centralising the inventory management.

Indicators

Good Storage and Distribution Practices (GSDP)

According to WHO 2003 Annex 9 'Good Storage Practices for Pharmaceuticals', the 2008 intersectional Guideline for the Supply and Management of Pharmacies, and the 2016 OCA Supply Guidelines, GSDP are currently at an acceptable level in N'Djamena (minimal requirements are met). A checklist is reviewed periodically to ensure that the situation remains or improves.

The stores in Am Timan could not be visited due to reasons mentioned above, therefore the following paragraph only relates to the capital stores.

It took several years, and several re-arrangements of the stores, to reach the current level of GSDP. However, in Ndjamena the insulation is quite fragile (besides a question mark on its effectiveness, the foil installed must be regularly repaired) and some dust was present when the stores were visited. A mezzanine has been built for the detail pharmacy, and even if the items stored there are less heat sensitive, the place is hotter as closer to the roof and is less ventilated. The required level of investment to reach controllable temperatures in warehouses is significant, especially in Chad; acknowledging this from the start of the project would have saved time and probably avoided rearranging the stores several times over the years. It would have probably also decreased the fuel costs associated with the running of the air conditioning.

Fire safety is weak as no automated system protects the facility during nights and weekends. The sand next to the fuel stock would be insufficient were those stock to catch fire.

The reception / dispatch areas are not extremely large and therefore rely on sound organisation of the management of orders. This could be an issue if the mission grows again, despite efforts being made to optimise the space through vertical storage and overall overstock clean up.

Adapted KPI for neutral stock management

Currently the mission is reporting on the same Key Performance Indicators as any other mission. As discussed below, at minimum, the overstock is seen as questionable. The discussions with different stakeholders did not produce propositions on other kinds of KPI that could be considered, although everyone agreed that the current ones were not all appropriate.

Therefore, it could be interesting to look at the European Supply Centres' (ESC) performance indicators, to see if some of those indicators would be relevant for a neutral central supply management in a mission. Some example indicators that could be considered to track this model's performance include: response time for field requests; number of air freights to cover for shortages; freight costs compared to volumes; donations; and losses against consumption figures.

Deloitte Consultancy, a United Kingdom-based consultancy firm, performed an intersection exercise in 2016 to define common grounds for supply chain management throughout the movement. From this, mapping propositions were made to align performance indicators and set definitions. Reviewing the production of this mapping process could most probably provide a basis for KPI specially adapted for the centralised unallocated inventory management model.

Ruptures

1. Cumulative monthly ruptures in Am Timan 2014-2014
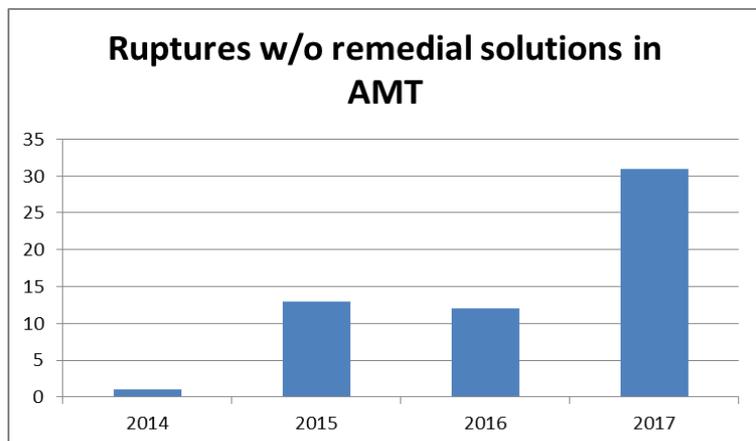
According to the logistics Key Performance Indicator for critical ruptures, the objective of reducing ruptures has not been met.

The target for this indicator is zero. It takes into consideration only ruptures which could not be solved on time by remedial action (the main ones being urgent order, borrowing from another project or section, replacement with another product).

The problem with this indicator is that one cannot know for how long a rupture has affected activities, as it does not report this information.

This above result must also be balanced with the consistency of the reporting over the years. Indeed, reporting in 2015 was very poor, while 2017 sees a net improvement on that front. The results of the indicator are therefore more reflective of the inconsistencies in reporting quality rather than representative of the quality of the inventory management itself.

Stock performance
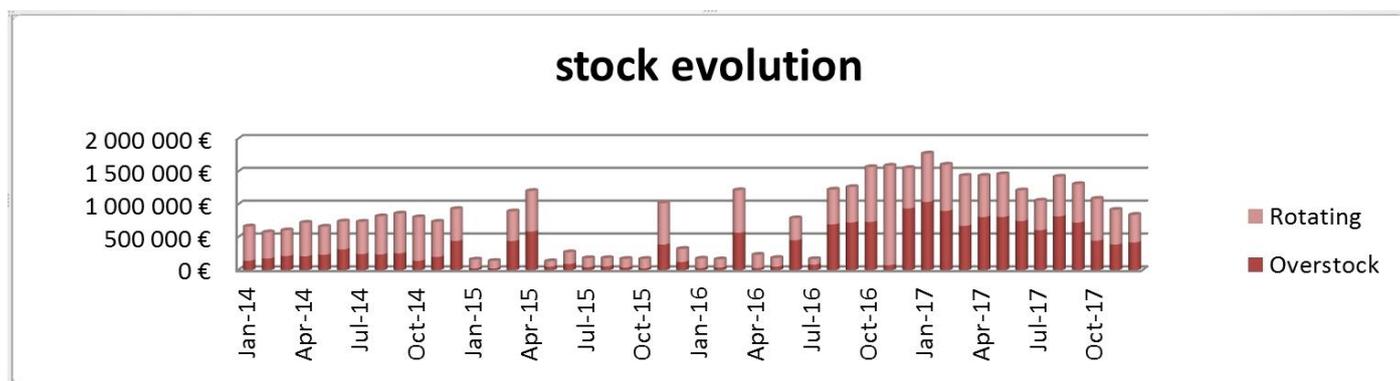
2. Evolution of the overstock / total stock ratio 2014 - 2017

As for ruptures, and losses due to expiries (118 000 Euros in December 2017, due to a cancelled Yellow Fever vaccination campaign in 2016 and where no third party could be found to receive the vaccines), the overstock indicator does not show an improvement.

However, the overstocks must be analysed with additional factors taken into consideration. First, the quality of reporting suffered from poor upkeep in 2015 and 2016, which is represented in the above graphic by the months with very low total values (the graph only represents Am Timan stock as N'Djamena figures were missing during the same period).[20] Secondly, two drastic increases in the overstock value can be seen at the moment of Abeche's closure in July 2016 as well as Bokoro's closure at the end of 2016. This second point leads us to a third limitation, which lies within the overstock indicator itself: both overstock (running stocks with over 12 months of consumption) and grey stock (items no longer needed elsewhere) are merged into the overstock figure. Distinguishing both indicators and being able to adjust their parameters to a context (like the 12 months cap) could more accurately reflect the solidity of the inventory management.

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[20] Extract of the Logistics Reporting Tool, overstock compared to rotating stock in Chad between 2014 and 2017.

The overall performance as measured by the Key Performance Indicators still places Chad among the lowest performing countries, and it must be noted that the emergency programmes' stock management performances are never reported upon throughout the years.[21]

Increasing the Effectiveness of the Unallocated Model

The effectiveness of the set-up received varying appraisal, depending on the point of view. Medical staff found the actual system effective, flexible and fast, especially during emergencies. The logistics staff were less convinced as the bureaucracy is considered heavy and slow; they specifically perceive the neutral management as time consuming, and that accordingly the supply staff are always busy. It is also clear, as this evaluation reflects, that the teams are mostly busy with medical supplies, resulting in everything else being somewhat neglected.

In addition, it was mentioned on several occasions that the Eprep stocks should be set aside and managed separately as there is a risk, by having them merged in the same management and administration, that they could be mistakenly used by the running projects, or that would take more time to deploy due to their unclear identification. However, recent history does not show evidence of Eprep stocks being misused or of delays in emergency deployment, which tempers this fear.

As discussed in the limitations of the current neutral model, moving towards a complete unallocated management - including from the financial aspect - could create opportunities to drastically increase the effectiveness of the model. It would really change the point of view and permit the creation of new ways of managing and monitoring field activities (valuation of assets, balance sheet-like booking of expenses, increased effectiveness of consumption analysis, etc.).

Conclusion

The inventory management (ruptures, losses, and overstock) did not demonstrate better performance than with a decentralised system

The pooling of logistics staff to support the field missions has been well-perceived throughout the years, as well as the pool's reactivity in emergencies.

Nevertheless, the supply chain is still highly reliant on the people who operate it, and especially so as the management tools remain far from perfect and induce extra unnecessary work.

Shifting from a sole process-oriented activity into a mixed process / management approach, simplifying those supply processes, adapting the KPI, modernising and streamlining the tools, abandoning this double administration (unallocated and allocated mix), or having tools permitting this double administration to function easily, are all areas that could bring improvements to the current model.

EFFICCIENCY

As the costs of the central warehouse are integrated into the coordination budget, it does not compare with other missions regarding the typology of budget allocation. A decentralised warehouse will be part of operational costs, whereas a central warehouse is part of the field overhead costs.

At the start of the project, no baseline (number of staff, size and cost per square or cubic meter of storage facilities, etc.) or specific analytic axes were set to measure the inputs (human resources, trainings, expenses) related to the implementation and maintenance of the central inventory management and to allow for their comparison to a decentralised model.

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[21] Ibid.

The human resource database (Homere) and the budget matrixes are both incomplete and inaccurate.[22] [23] It is therefore impossible to accurately track the costs over the years and to project a comparison of the number of staff involved in the supply chain or the costs of warehousing (rent, running costs, initial investments, etc.).

Drawing conclusions from those extractions would lead to too many assumptions and false conclusions. To be able to do so, one would need to fill in all the gaps found in the HR software database and work on redefining most of the financial entries within the Budget Control Reviews (BCR) of all the projects for the analysed years.

The efficiency of the structure and staffing will therefore not be approached here with quantitative findings, and it is worth mentioning that if this exercise of reconciliation of the databases is not performed, any questioning of the model's cost efficiency will be left to individual perception.

Input / Output efficiency

As mentioned above, the quality of the warehousing has attained an acceptable level, the CERU team has expressed a good response capacity to emergency programmes, and it has been observed that that the national staff set-up of the supply team has proven to be effective (support and detachment to the project, fast set-up of supply activities during emergencies, etc.). Analysis of the evolution of the costs is not feasible at the time of this report and would need further investigation to be extracted and for accurate data to be obtained.

Comparison with a Decentralised Model during the same period

Because the financial and HR databases are not accurately filled in, the comparison between the financial inputs that would have been needed for a decentralised model in the same period is not feasible at present.

We can only make assumptions based on the fact that the field supply teams are slightly reduced and that the size of the field warehouses are for obvious reasons smaller than if they had to deal with the total quantity of their stocks. Smaller storekeeping infrastructure requires less investment and lower running costs (insulation, air conditioning, generators and fuel) to control temperature and humidity levels, and goods can even be stored out of a temperature-controlled environment if stock rotation is running at a very fast pace, as was done in Bokoro during the large-scale nutrition intervention in 2015.

In decentralised models, the central stores are used for goods in transit. Those goods still need to be stored in high-quality facilities, even for shorter periods.[24] This means that N'Djamena would still need to have large stores to allow for transit receptions and to keep the emergency preparedness items, as well as to receive returning goods from closures. The energy expenses saved while the stores are empty would be reported to the projects, as they would need more temperature-controlled storage space. The number of human resources to train up to standard would also have been higher, as higher risks to goods would have been incurred at project level due to stocks being bigger.

Use of Pooled Financial and Logistics Resources

Orders and transport

According to discussions with the Operational Procurement Officers (OPO) in charge of Chad in the Amsterdam Procurement Unit (APU) in recent years, the orders for Chad were mainly planned orders, or emergency extra orders due to the scale of the emergency responses. Urgent orders to cover ruptures were limited.

The table below shows the evolution of freight-related costs over the years. It is hard to interpret this evolution as a sound utilisation of financial resources, rather than as a reflection of the programme's activities and context-specific moments (the peak moment for international air freight in 2014 represents the decision to transport everything by air as the security situation between Cameroon and Chad discouraged the use of road transportation for post shipment from Douala).

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[22] On Homere, some staff have two or more identification numbers, the function is not always filled in, there is no detail on the type of contract (full time, part time), etc.

[23] The chart of account does not distinguish between the nature of the premises; descriptions of expenses are not consistent over the year, or refer only to the name of the supplier / owner and not the reason for the expense.

[24] 7.1 Materials and pharmaceutical products should be transported in such a way that their integrity is not impaired and that storage conditions are maintained. (Annex 9 Good Storage Practices WHO 2003).
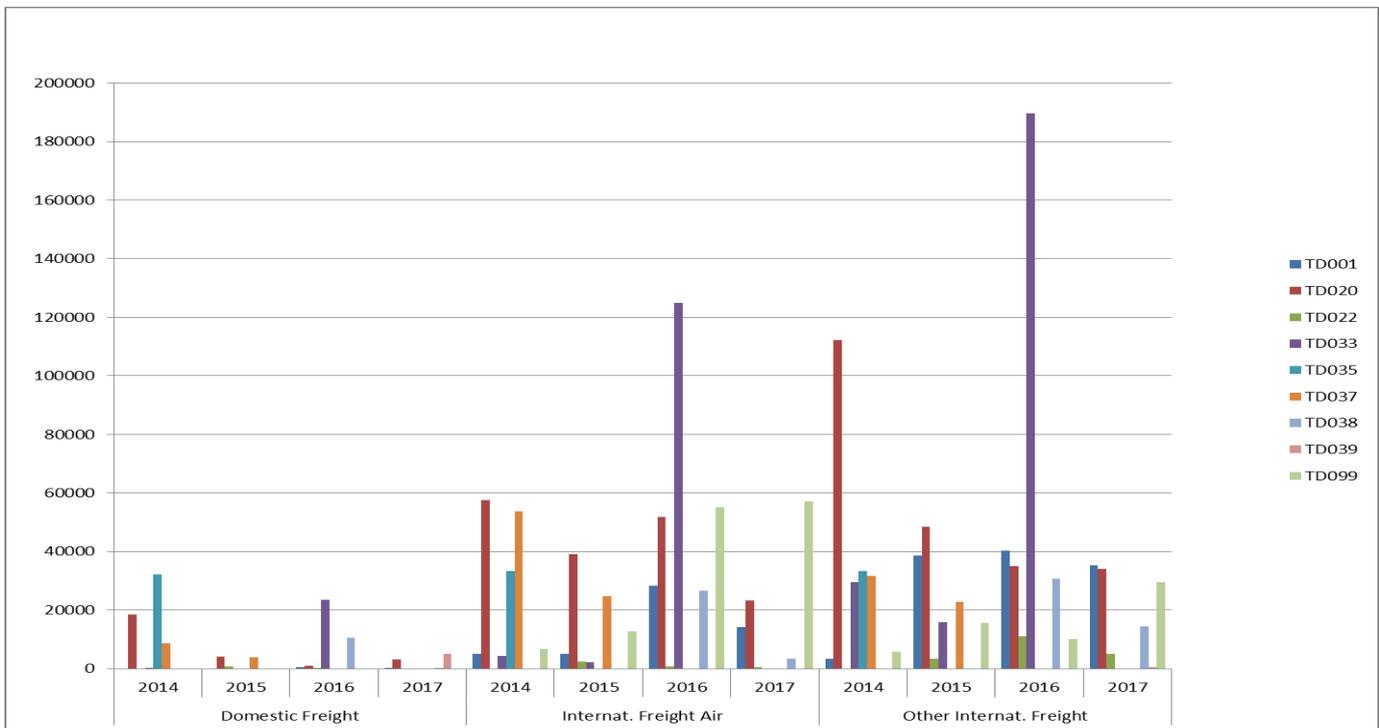
3. Overview of the evolution of freight related costs per project 2014-2017

Domestic freight costs are never high in comparison to international freight costs. This means that the potential increase of domestic freight induced by the monthly replenishment of the projects does not have a significant impact, even if trucks are not fully loaded.

International air freight costs are however still quite high and a review of the orders' details shows that a significant number of items shipped this way could have withstood sea freight. This is especially true for the anchor project (TD020) which should have predictable needs.

Reviewing the above graph could incite questions as to why Eprep (TD 099) was replenished by air freight in 2016 and 17, while it could have most probably waited for sea freight.

It could be expected that sound monitoring of a centralised store would enable good anticipation of needs and accordingly reduce air freight costs. The ratio between the two types of freight could be considered as a performance indicator of a sound inventory management.

Field support

Direct support to the field increased over the years, and different members of the capital supply team are regularly despatched to the projects to support inventories, coach field staff on tools and processes, and gap fill positions.

The capital supply team is also involved in the opening of emergency projects. They help set up the stores and processes, and assist in training newly recruited staff.

Recently, the mission has started to retain key field supply staff in the capital for them to be trained at the inception of their mission. It is also planned for national staff positions to be exchanged between field and capital to further develop their skills and understanding.

The team in N'Djamena, by ensuring a critical HR mass to support the field's operations, allows this support.

Conclusion

The teams are lighter and the infrastructures in the projects are smaller; compared to a decentralised model, costs are therefore reduced. However, this does not mean that it balances out with the extra coordination costs coming from this centralised strategy, especially in periods like the present one when the mission is only running one long-term project.

The efficiency of the model is, with the indicators and data presently at hand, not possible to appraise quantitatively, as inexact databases hinder the capacity to follow the model over the years. It could have been achieved by setting specific analytical axes both in HR deployment and financial budgeting, with a strict input of data into all the databases and

monitoring tools (HR, finance, medical and supply), and along a strict timetable, enabling the addition of a time relation between the inputs and the duration of the different projects.

This work can still be done, and will require allocated resources and dedicated time to extract archives and correct or reinterpret all the relevant data. Relevant historical staff in the mission (HR, finance, logistics, CERU) should take active part of this exercise as they will have knowledge of the details.

IMPACT

Support to the Projects:

The overall inventory management (losses, overstocks, ruptures) has not yet proven to be more efficient, although it is impossible to tell whether it would have been better in a decentralised system. Reported cold chain breaches implying a loss of assets are low compared to other contexts.[25]

Feedback from the capital on the status of the orders and availability of stocks is still an area that could be improved. It is not specific to the model, but is of even more importance as the field stock levels are low in comparison to fully decentralised stocks.

The anchor project did not feel the benefits of the system from its inception. It took a while before all involved stakeholders understood that they did not own their stocks and how to work with this fact. The benefits are more obvious when a skilled supply management team is in place, both in capital and field. At present there is an overall satisfaction amongst the Am Timan team. The small size of the stocks creates a sense of necessity for closer monitoring, which benefits the overall supply chain.

Perception of the Unallocated Strategy by the Projects

Looking at trip reports from HQ and handover reports, it took some time before the anchor project felt comfortable not having all their stocks in their possession. They do at present, as they are benefitting from strong capital support and skilled field HR. The CERU team felt those benefits much earlier, and especially during opening phases, as this set-up gave the mission the capacity to deploy rapidly by detaching staff from coordination and by centralising grey stocks.

The reactivity of the capital team is felt more on the side of medical supplies, rather than on the logistics side. This could be due to the fact that considerable efforts are made towards the monitoring of the medical supply chain, and that the technical logistics teams have by nature more ad-hoc needs, outside of replenishment cycles. [26]

Now that the system is becoming more and more fluid thanks to the addition of competent and longer-term international staff, as well due to the skills development of the national supply teams, the processes are lighter in the projects than in the classical model. The reduced quantities of stocks enable better management in the field and, aside from the consumptions forecast; the entire international order exercise is performed at capital level.

Unforeseen Impacts

One of the major improvements for the project is the fact that it was decided to shift from using forecast figures to real consumption data to replenish the field stores. This development would not have happened with a decentralised system as it would not have had this extra ordering layer for the projects (field to capital replenishment). It is a very good development as it enforces the requirement for monitoring, for on-going adjustments of the consumption figures, and for the application of medical protocols in the health structure of Am Timan. Hence, it allows a bigger and more accurate clean-up of excess stocks and unnecessary items in the project, and therefore in the mission.

Conclusion

The impact was first felt during emergencies. Now that the system is supported by competent staff along the chain, the impact is also being felt on the anchor project. This impact is fragile and still heavily people-dependent. It will remain

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[25] Logistics Reporting Tool, all countries
[26] The logistic stocks are managed with a mix of centralised (Biomed, Vehicles spare parts…) and decentralised (other consumables, and part of the assets).

that way at least until more automated processes are put in place, and until the tools are rendered more straightforward and user-friendly.

A major improvement was found while using the real consumption figures for field replenishment. This is foreseen to potentially have a long-term impact on the overall quality of the inventory management as it will most certainly lead to more accurate international orders. This improvement would not have come with a standard decentralised system, as the layer allowing this (field to capital replenishment) does not exist.

REPLICABILITY

Other Contexts

At present, the model is not replicable as it does not take into consideration all the constraints of the organisation and therefore lacks the buy-in of all departments necessary to be able to support the field teams in their set-up and management. The model is not reflected in the supply policies, and the financial constraints imposed by the accounting model in use in MSF induce a hybrid model combining unallocated and allocated managements of the inventories. The tools developed are cumbersome and unclear, complicating daily management.

Broad Deployment

The neutral model can be considered as one of the possible models for managing inventories. It has been deployed by different OCs in similar or different mission settings.[27]

Context constraints must be considered. Road infrastructure, the security of the country, and weather conditions are important factors to consider. For many of the interviewees, the typology of the programmes is also a factor to consider; indeed, the model seems more appropriate if the different programmes are of a similar nature. Neutralising only the common critical assets could also be a possibility to investigate, similarly to how it is done for logistics assets in the mission.

Conclusion

The neutral model is a good model to consider while reviewing the inventory management strategy of a country. It still needs quite some development to be consolidated and simplified. As it is, the different stakeholders are not comfortable with the lack of accountability and the costs associated with the coordination budget. It would need strong support from all the necessary HQ stakeholders to ensure that the model is well-understood and supported. As mentioned during several interviews, "one size does not fit all", and this model should be considered alongside the more classical decentralised system.

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[27] MSF Supply Chain Mapping - Phase 2 - WG1 Medical Order and Inventory Management vf, slide 50

CONCLUSIONS

In 2012, the MSF OCA Chadian mission perceived a clear need for an action plan around the mission supply management. The implementation of a central management strategy was agreed upon by both logistics and operational lines. However, as a comprehensive model assessment involving all aspects related to the supply chain had not been conducted at the time, the project was deprived of being well-designed and adequately supported as a pilot project.

The most necessary inputs, such as reinforced trainings or adaptation of the tools and policies for the deployment of the model, were identified at the inception phase. Unfortunately, limited follow-up and direct support from HQ meant that it took over two years until the model could really be established for the mission.

Involving additional stakeholders from the beginning, principally the finance and medical teams, would have secured the buy-in of the non-logistics HQ entities and helped to create a collaborative work dynamic. Space would have been created for a better follow up and guidance of this project.

It would have also permitted the model to be taken into consideration while the guidelines and practices within OCA were being reviewed.

The outcomes of the deployment of this project were felt rapidly in the emergency programmes, but maintained confusion until recently for the Am Timan anchor project and for the overall management of the central warehouse.

The real improvement for the anchor project came when the field replenishment began to be based on the actual consumptions of the health facility, and when the mission team dynamics were drastically improved by a conjunction of longer-term expatriate positions, and accordingly more experience and willingness among the staff. It also came at a time when the mission size was reduced, allowing more time for sound management and support from the coordination supply team.

These efforts must be consolidated, and ways of maintaining these improvements after the departure of the current team remain to be defined, as it has been demonstrated that the supply chain is still reliant on the competence of the expatriates in charge of its activity; it can therefore be anticipated that the next rotation of expatriates could affect the whole functioning of the central inventory management if no specific attention is given in that regard. More specific and dedicated attention will be needed at the opening of the new anchor project in a few months' time.

Comparing the effectiveness of this unallocated inventory management model with a classic decentralised model in terms of losses and rupture performances is hard to define. One cannot really conclude this for one model or the other, especially when considering returning stocks after closures like those of Abeche and Bokoro in 2016.

Regarding the overall efficiency, and especially considering the costs, it is currently not possible to draw conclusions as doing so would require thorough investigations with knowledgeable historical staff to reallocate the different lines to the dedicated expenses. It is not impossible to do so, though it would require considerable time and archive research to achieve. Finding the rental contracts, reviewing the investments made in each location, finding generator fuel logbooks, and remembering staff positions would all be needed, amongst other requirements. Incorporating all those into the timeline of each project could then provide a valid quantitative analysis of the cost and means efficiency by recreating the missing analytical axes.

Support to the projects has increased over the years, along with the capacity of the supply staff. This has been possible thanks to the significant number of staff in the coordination supply team, and because of the presence of a detail pharmacy in the central stocks. This would not have been achieved if the coordination stocks had remained with transit capacities and kit management, as competencies would have developed differently and the coordination supply team skills would not have been aligned with the ones needed in the projects.

The management of reduced project stocks gives more leeway for better monitoring at this level of the mission and a great development in consumption monitoring was introduced by this model, potentially improving the quality of international orders in the mid-term. It is hard to envisage this mean of replenishing field stocks transposed into the classical model; however, it could be of great benefit there too, were the transposition to be accomplished and a component of lean management introduced.

Even if far from perfect at present, the neutral model is relevant, and as the purpose the Chadian mission is to remain with one anchor project while responding to emergencies, one of the initial triggers for the shift, the mission should continue in this direction and develop the model further.

RECOMMENDATIONS

⇒ **Recommendation 1: To the desk**

Go Neutral! Complete the model and deploy a fully-centralised unallocated inventory management.

Create a steering committee to ensure institutional buy-in and to recognise the project as a pilot.

Ensure database consistency to be able to follow the model through time objectively.

⇒ **Recommendation 2: To the Field Support Unit**

Acknowledge the pilot project to dedicate means and to allow appropriate support.

Rethink & streamline the Tools to simplify the daily work and enable good management and monitoring.

Review the indicators to reflect the centralised unallocated strategy.

⇒ **Recommendation 3: To the Finance and Control Department**

Support the model by participating in the development of the centralised unallocated inventory management model and proposing a satisfactory workaround to the accounting constraints.

⇒ **Recommendation 4: To the Mission**

Build up a training plan for the national and international staff working in and with supply activities to ensure continuity and improvement of the current situation.

Prepare for Am Timan closure, new project opening, and next emergency deployment.

Send continuous feedback to the Desk / Steering Committee to ensure continuous adaptation and improvement.

ANNEXES

ANNEX I: TERMS OF REFERENCE

Terms of Reference

Subject/Mission	Chad: Central Warehouse Evaluation
Commissioner	Christian Katzer – Operations Manager
Evaluation Focal Point	Norman Sitali – Operations Adviser
Consultation group	**To Be Completed**
Starting Date	March 2018
Duration	23 Days

MEDICAL HUMANITARIAN CONTEXT

Standard MSF OCA projects follow a standard inventory strategy defined by the OCA supply guidelines. In Chad, the norms where not seen as adequate to support the operational strategy which run "long-term" projects and respond to emergencies with projects of limited durations. The impact of the shortcomings of the standard inventory strategy was mainly on the anchor project (Am Timan), as the project stocks were used as seed stocks for the emergencies, not allowing the project to properly manage their own stocks and increasing the complexity of following up consumption.

In addition, in Am Timan, one of the long-term project site, the warehouse was deemed too small to hold the stocks forecasted for the normal project activities; and other project sites, such as Bokoro, Biltine, etc., needed to have a proper warehouse as well. As a general matter, the warehouses of the Chadian mission were not compliant to the minimum standards for storage conditions and therefore, regardless of the adoption of a centralized or a decentralized strategy, there was a need for investment.

The rationale behind having a central stock is available in the Field Support Unit (FSU) Front Officer (FO) trip report of July 2012. In summary, the main reasons for the push to have a centralised model was the lack of available qualified staff for short-term projects (emergencies) and the occurrence of continuous overstocks and ruptures that plagued the mission. In addition, the costs to set-up appropriate structures on projects sites to hold all project stocks meeting the storage conditions requirements appeared as prohibitive.

Investing in a proper warehousing (Centralized Model Strategy) and having trained local human resources was perceived as a valuable investment for the mission. The Chad mission started to implement a centrally managed inventory (also referred to as central "neutral"/financially unallocated stock) strategy in early 2013, and so after several years of preparations and failed attempts.

The staff competences improved through training and resources (medical and logistics) coming in country for project activities and concentrated in the capital (Ndjamena). Meanwhile, the field had reduced responsibilities while keeping accountability and improving the flexibility of the system, which is a key factor during emergencies.

MSF OCA internal audits, while agreeing to the concept of centralised inventory management being sound, raised concerns on the existing constraints of the current strategy and pointed out that the physical implementation lacked proper administrative tools and procedural guidance. Similarly, logistics field support visits expressed the same concerns on the lack of adapted tools. This was understable as the mission had proceeded with the implementation of a centralised inventory management using existing MSF tools normally tailored for a decentralised strategy, for the centralised strategy.

However, recognising the need of having Standard Operating Procedures (SOPs) and tools to support the central stock in Ndjamena, Field Support Unit (FSU) and Logistics Coordinator focused in the development of SOPs and putting in place tools to support the smooth functioning of the central stock management in Ndjamena as foreseen and recommend in 2012.

REASON FOR EVALUATION / RATIONALE

Chad being the only mission with a centralised inventory management in OCA, it is essential to develop an understanding as to how the inventory management outside the standard norm has benefited a mission like Chad, as well as reflecting on its original intended purpose.

OVERALL OBJECTIVE and PURPOSE

The overall objective is to assess the potential comparative advantage of having a centralised system in Chad as opposed to a decentralised system; and reflecting on its relevance, appropriateness, effectiveness, efficiency and impact of the supply system for programme implementation. This evaluation will provide an independent appraisal of the implementation of a centralised managed stock in Chad compared to the standard MSF OCA decentralized strategy of stock management on mission supplies.

It will assess the relevance of the centralised stock designed strategy from its inception, the appropriateness of its execution, and the effectiveness of its implementation; and consider whether the expected outcomes of staff performance improvements, reduction of stock ruptures and overstocks, and overall improvement of supplies in the mission has materialise.

In addition, it will assess the efficiency of the strategy and whether the expected improved responsiveness represent the best use of resources, and adequate tools have been put in place to ensure due process and accountability.

Ultimately, it will assess if the centralised stock strategy has met its main objective to respond to the needs of the mission adequately for both anchor and emerging projects; and will benefit the desk and operations at large being informed on the effectiveness of the inventory strategy in Chad, as well as MSF OCA internal audit.

SPECIFIC OBJECTIVES

RELEVANCE:
- Was a needs assessment carried out appropriately and the strategy designed in accordance?
- Do project objectives correspond with identified needs?
- Which MSF OCA Supply policies apply and to which extent is the project design and implementation in line with them?
- Was the potential deviation from policy justified and the MSF OCA policy itself appropriate?

APPROPRIATENESS:
- Is the intervention appropriate according to the perception (expressed needs/demand) of the field projects and/or according to MSF OCA policies?
- Is the strategy appropriate in order to achieve the stated objectives?
- Does MSF OCA have the necessary tools and process to implement a centralised warehouse system?
- Were appropriate and timely adaptations made in response to the evolving needs of the mission and project?
- How does the MSF OCA centralised strategy implementation compare to other MSF's sections in-country? And how does it perform against those?

EFFECTIVENESS:

- To what extent have the agreed objectives been achieved? And does the implemented strategy meet the minimal requirement for storage conditions?
- What are the limitations/opportunities inherent in the approach, and compared to a decentralised strategy?
- What are the potential improvement of inventory management concerning expiries before consumption, stock rupture and overstock? Can those be measures and quantified?
- Has logistic and supply staff performance improved through increase training and resources?
- Which key performance indicators should be used to monitor the inventory of a centralised warehouse?
- What can be done to make the intervention more effective?

EFFICIENCY:

- How cost-efficient is the project, in terms of the qualitative and quantitative outputs achieved as a result of the inputs (e.g. HR, transport, running costs, cold chain, etc.)?
- How does it compare to a decentralised approach, and how will financial inputs for the last 4 – 5 years compared to a decentralised approach considering the evolution of the mission portfolio?
- In what ways has MSF OCA utilised available 'pooled' financial and logistics arrangements to contribute to the efficient use of resources and economies of scale? What improvements can be made?
- Is the project structure and staffing efficient? How does it compare to a decentralised model?

IMPACT:

- Did the quality of support to projects and programmes improved as a result of a centralised stock strategy?
- What do projects perceive to be the effects of the centralised strategy on their projects?
- Did the centralised strategy have any unforeseen positive or negative impact?

REPLICABILITY:

- Is the adopted replicable to other contexts and should MSF OCA consider this alternative approach more broadly?

EXPECTED RESULTS

- Inception Report upon completion of inception phase and prior to evaluation research phase as per SEU standard (see www.evaluation.msf.org/resources);
- Final report of no more than 20 pages as per SEU standard (see www.evaluation.msf.org/resources) and including:
  - A compilation of lessons learned on the implementation and management of the centralised strategy;
  - A description of pre-requisite (global and local) for a successful implementation of centralised managed stock.
  - 5 key recommendations for the improvement of effectiveness and efficiency of the centralised strategy.
- Debriefing at MSF OCA Head Office and potential presentation to the house.

TOOLS AND METHODOLOGY PROPOSED

- Review and analysis of project documents relating to supply aspects;

- Review and Analysis of MSF-OCA Supply Policies; and other OC's practice and policies in-country;

- Meeting/discussion/interviews with key-team members at HQ and field levels and including Operations, Medical, Logistics, Supply, Audit staffs (TO BE COMPLETED).

- Observation

RECOMMENDED DOCUMENTATION:

2012 Field Support Unit report; Internal Audit report Chad;

TO BE COMPLETED

PRACTICAL IMPLEMENTATION OF THE EVALUATION

Number of evaluators	1
Timing of the evaluation	March 2018
Required amount of time (Days);	
• For preparation (Days)	5 days
• For field visits (Days)	10 days
• For interviews (Days)	3 days
• For writing up report (Days)	5 days
Total time required (Days)	23 days

PROFILE /REQUIREMENTS: EVALUATOR(S)

- Logistic / Supply background, preferably with MSF experience;

- Language requirements: English (Report) and French (Field Visit) – Fluent;

- Experience in Supply at national or international level;

- Evaluation competencies.

ANNEX II: LIST OF INTERVIEWEES

First name, Last name	Function
Am Timan, Chad	
Alexis Balekage	Project Coordinator
Betoubam Dillah	Assistant Supply Logistician
Hamat Djedid Mabrouck	Pharmacy Supervisor
Jean Claude Nzala	Medical Team Leader
Jean Marie Majoro	Supply Logistician
Pascal Polycarpe Seyanga	Technical Logistician
N'Djamena, Chad Emergency Response Unit	
Abdel Moumine Abba Malloum	Assistant Logistician
Federica Franco	Project Coordinator
Roger Ngueremi Yary	Medical Team Leader
N'Djamena, Chad coordination	
Bunie Noel	Mission Pharmacist
Demas Dendjimbaye	Capital Supply Assistant
Hans Lehner	Financial Coordinator
Mallah Malandjigue Timoleon	Warehouse Supervisor
Mohammed Ali Omer	Logistics Coordinator
Moussa Mahamat Abakar	Personal Administration Manager
Ngomi Dendibaye	Accountancy Manager
Nibara Gorandi Florent	Medical Storekeeper
Prince Alfani	Medical Coordinator
Robert Sefu	Supply Manager
Berlin, Desk OCA	
Cameron Wrigley	Field Financial Advisor
Christian Katzer	Operational Manager
David Treviño	FSU Front Officer
Inga Burgsmann	Ex Field Finance Advisor
Norman Sitali	Operational Advisor
Sibylle Sang	Health Advisor
Tom Roth	Ex Operational Manager
Turid Piening	Ex Health Advisor
Amsterdam, Back Office OCA	
Anna Eschweiler	Ex Pharmacy Advisor
Armand van Ramshorst	Internal Auditor/financial controller
Filipe Garcia	Field Supply Support Back Office
Jan Kanzleiter	FSU Field Supply Information System Advisor
Jessica Hsia	APU Operational Procurement Officer
Lucinda Sallis	APU Operational Procurement Officer
Other OC in Chad	
Jérome Basset	Logistics Coordinator, OCG

Laura Dorofteï	Supply Manager, OCG
Darizal Tampubolon	Supply Manager, OCP

ANNEX III: INFORMATION SOURCES

N.B. The list of documents is not exhaustive.

Audit	TD 2013 Audit Report - 130614 - FINAL
	170310 Chad audit report with comments
Trip Reports	2010-08 FSU+APU Chad consultancy
	2011-05 FSU visit to Chad
	FBSC Trip Report Chad
	OA-health trip report Chad 2012
	TD 2012-07 FSU Consultancy
	130220 OMHA Chad Trip Report final
	130325 CHAD FFA field visit trip report FINAL
	140304 CHAD FFA field visit trip report FINAL
	140520 FSU_Trip-Report_Chad_FO_2014-05
	140718 OM Chad Trip Report HoM
	1407 Chad Trip report HA final
	151231 HA Trip Report to Chad December 2015
	CHAD FFA field visit trip report March 2016 Final
	201608 August Health Advisor Report Chad FINAL
	161208 OM Chad Trip Report
	1802 Chad OA Trip Report Draft
End of Mission Reports	EOMReport Pharmacist Louise Keane
	12M LogReport-Coordination Logco 2013
	HANDOVER REPORT LOGCO
	Handover Brad-Abdullah March 2016
	Logistical Coordinator Handover May 26 2016
	Handover SUPPLY EoM Charlotte to SoM Robert
	Handover SUPPLY - oct 2016
	Handover Report - Nicolas Marcotte - November 2016
Assessments	Am Timan Medical Supply Assessment October 2012v6
	Supply Lessons learnt Bokoro
Project documents	Centralised Supply Model
	Chad Med Supply Workshop Report Light
Amsterdam Procurement Unit	Chad order overview (2012-present) APU
	Chad SLA August 2017
	Chad SLA Dec 2013
Deloitte Consulting	MSF Supply Chain Mapping - Performance Management vf
	MSF Supply Chain Mapping - Phase 2 - WG1 Medical Order and Inventory Management vf
Policies and Guidelines	Annex 12 Mission-Specific SOPs (2013)
	GoodDistributionPracticesTRS957Annex5 WHO
	GoodStoragePractices WHO
	Guideline for the Supply and Management of Pharmacies

	https://intranet.oca.msf.org/Departments/Logistics
	Stockage controle Med
	Stockage cotrole Log
	Supply Guideline 2016 MSF OCA
	Supply Handbook 2015 and 2018
	Supply Handbook addition - Replenishment Planning (2013)
	Supply handbook Chad –narrative (2013)
Data bases	AMT_OCA-CT encien V3.4-2018.01.17 Mars 18
	BCRs All Projects 2014 - 2017
	CHAD Am Timan Consumption Tool 2013
	https://reporting.amsterdam.msf.org
	TD_BM Homere database
	TSRs and MSRs 2014 - 2017
Other OC	QlikView OCP Chad
	STOCK MISSION - BUNIA - Procédures

ANNEX IV: EVALUATION MATRIX

Evaluation issue	Evaluation question	Judgement criteria	Indicators	Data sources
RELEVANCE	Was a needs assessment carried out appropriately and the strategy designed in accordance?	Was there a needs assessment performed before the decision to centralise the stocks has been taken?	Stakeholders' perceptions. Existence of documents Workshop results	Documentation review. Stakeholders Interviews - Cell, Back Office, Historical Staff
		Was the decision to go for a neutral stock in line with the needs assessment	Existence of an Action Plan	
		Was the choice documented and an action plan drawn		
	Do project objectives correspond with the identified needs?	Was a specific model assessment carried out appropriately	Stakeholder's perception	Documentation review. Stakeholders Interviews - Cell, Back Office, Historical Staff
		Was there an intersection search on similarly implemented model within the movement?	Existence of a document discussing the different solutions.	
		How accurate was the need assessment, was the solution thought through and modelled.	Quality of this document	
	Which MSF OCA Supply policies apply and to which extent is the project design and implementation in line with them?	To what extend the standard supply policies allow the model, was there an analysis done	Presence of the model in the standard guidelines and policies Capacity to develop specific SoPs adapted for the Chadian context,	Standard Guidelines and SoPs Chad Supply Handbook
		Does the current policies allow deviations		

		Is there an alignment between the project and the existing policies	but in line with the policies	
	Was the potential deviation from policy justified and the MSF OCA policy itself appropriate?	Have the policies been adapted to the situation Have specific SoP been developed	Stakeholder's Interviews Existence of adapted Policies Existence of adapted SoP Existence of documents discussing and justifying the deviation Challenges within OCA framework	Standard supply handbook Financial policies Interviews with FFA, Auditors, Supply Back Office
APPROPRIATENESS	Is the intervention appropriate according to the perception (expressed needs / demand) of the field projects and / or according to MSF OCA policies?	Was there a broad audience consulted at the inception of this project (field medical and non-medical staff, coordination staff, Amsterdam Back office)	Stakeholders' perceptions of the alignment between the strategies/ activities and the objective	EoM reports, staff interviews Strategic documents, Chad supply policies
		Was this decision confronted against policies and standard SoP.?		
		Where / Are all needed stakeholders involved in this action plan (HR, Finance, Logistics)?	Stakeholders' perceptions of whether strategies and activities adopted are contextually appropriate over time	
		Was an established and communicated plan set-up; was there an action plan for HR development done; was there specific indicators put in place; was there a specific support from HQ set		
		Were the bottlenecks identified and addressed	Evidence of working people / groups on policies analysis. Existence of adapted Policies.	
	Does MSF OCA have the necessary tools and process to implement a neutral warehouse system?	Were the tools assessed towards a neutral central management	Evidence of study and discussion on tools adaptation	Project documentation (Timeline, reports)
			Existence of specific tools	In country tools review
		Were all tools (supply, medical and financial) adapted	Stakeholders memory	Stakeholders Interviews
	Were appropriate and timely adaptations made in response to the evolving needs of the mission and projects?	Was the action plan reviewed on regular basis, with involvement of all required stakeholders?	Evidence of reviewed Action Plans and strategic adaptations	Stakeholders Interviews Trip reports, Action Plans
		Has the model evolved regarding the priorities of the mission		

	How does the MSF OCA centralised strategy implementation compare to other MSF's section in-country? And does it perform against those?	What are the other OCs supply approaches in the country, what is their perception of OCA's model in Chad?	Other OCs main stakeholders' perception. Review of their strategies and guidelines	Stakeholders Interviews Strategies and guidelines documents
EFFECTIVENESS	To what extent have the agreed objectives been achieved? And does the implemented strategy meet the minimal requirement for storage conditions?	Was the objective of minimising ruptures in Am Timan achieved	Evidence of less ruptures after the deployment of the model Evidence that the availability of supplies did not hinder Emergency responses in the last years Evidence of less ruptures and losses	Project documentation Stakeholders Interviews KPI
		Where the Emergency response more effective in terms of supplies		
		Has the overall ROSE management improved		
		Are medical GSDP met	Evidence of GSDP in place	Warehouses visit
	What are the limitations / opportunities inherent in the approach, and compared to decentralised strategy?	Does the model show limitations	Stakeholders Perception Findings Stakeholders perception and proposition Relevance between KPI measurement and needed outputs	Stakeholders Interviews Guidelines, Policies and SoP Stakeholders Interviews: LogCo, Supply log, Medco
		What are the demonstrated added values of this model		
		How does the model compare with a decentralised strategy		
	What are the potential improvement of the inventory management concerning expiries before consumption, stock rupture and overstock? Can those be measured and quantified?	What adjustments or changes in approach and activities could improve results or outcomes?		
		Is there a different way to avoid stock ruptures and losses		
		In which category enter donations		
		Is the definition of overstock adequate with this type of inventory management, are all item concerned similarly		
		How could we measure those improvements		
	Has logistics and supply staff performance improved through increase training and resources?	Was there an HR development plan put in place for the different stakeholders of the supply chain	Existence of an HR development plan	Personal Evaluations of supply staff
		Were there trainings organised?	Number of trainings organised	Supply staff perception
		Did the staff skills and performances improve?	Staff appraisal	
	Which key performance indicators should be used to monitor the inventory of a centralised warehouse?	Which KPIs are in use to monitor the performance of the supply chain	Proven capacity of current KPIs to monitor the inventory Stakeholders	KPI
		Are they relevant		

		Are they new ones to introduce	interviews, Evidence of missing Indicators	
	What can be done to make the intervention more effective?	Is there space to improve the global set-up of this model?	Roles and responsibilities of supply staff. Staff perception Review of processes	Job Descriptions Staff Interviews Chad SoP
		In which area (ordering, administrative process, communication lines, HR set-up, storage organisation…)		
EFFICIENCY	How cost-efficient is the project, in terms of the qualitative and quantitative outputs achieved as a result of the inputs (e.g. HR, transport, running costs, cold chain, etc.)?	Was the original purpose met (better GSDP, faster emergency responsiveness, less losses…) as compared to the investments made in several budget lines (warehousing investments, HR set-up, international transport costs…)	Evolution of country KPIs Evolution of supply related costs Stakeholders satisfaction	Financial matrix 2013-2017 KPIs
	How does it compare to a decentralised approach, and how will financial inputs for the last 4-5 years compare to a decentralised approach considering the evolution of the mission portfolio?	What would have been the costs and effectiveness of the decentralised approach during the same period	Projected cost on HR, warehousing investments, for anchor project and for all short-term projects	Stakeholders interviews Yearly budgets
	In what ways has MSF OCA utilised available "pooled" financial and logistics arrangements to contribute to the efficient use of resources and economies of scale? What improvements can be made?	Did the ordering process get more efficient (consolidated orders, joined transports), did it reduce emergency international orders due to ruptures	Evidence of consolidation of costs	Number of orders to APU, number of International Transports
		Were the consolidated stocks easier to monitor, were they less losses and overstocks	Capital field support model	KPI (especially on losses) Organisational charts
		Did it allow lighter HR set-up in projects	Field supply set-up (infrastructure, HR)	
	Is the project structure and staffing efficient? How does it compare to a decentralised model?	Projected cost comparison with the traditional model in the context of the mission (Warehousing and investments for GSDP compliance, Staffing of projects and capital…)	Cost comparison	Costs extraction
IMPACT	Did the quality of support to projects and programmes improved as a result of a neutral central stock strategy?	Did the anchor project have the feeling of better mastering their stocks; was it more fluid on the short-term projects	Stakeholders Perception Evidence of fluid supplies during Emergencies	Stakeholders Interviews Project sitreps
		Was there a visible reduction of ruptures and losses, was there less cold chain damages.	Evidence of reduction of ruptures	KPI, Stakeholders Interviews

		Did the reinforcement of the capital team have an impact on the direct support to the different fields (field visits and coaching, responsiveness to field needs...?)	Evidence of field visits, coaching Field perception of support given	Logs EoM reports, Staff Interviews
	What do projects perceive to be the effects of the neutral centralised strategy on their projects?	Do the projects have a clear picture of the status of their orders and expenses	Staff perception Regular communication documents Shortage reports	Staff Interviews, supply statistics
		Do the projects have an impression of fluidity in their supplies		
		Has the projects a sense of increased reactivity of the coordination team regarding their supplies		
		Are the projects costs diminished in comparison with other similar projects in other countries		
		Have the projects the impression their in-project management of supplies is lighter compared to usual settings.		
	Did the centralised strategy have any unforeseen positive or negative impact?	Did any unplanned impact show up	Stakeholder's perception and, when possible crosscheck towards hard data	Stakeholders Interviews, any relevant data
REPLICABILITY	Is the adopted replicable to other contexts and should MSF OCA consider this alternative approach more broadly?	Is the neutral model replicable	Existence of adapted policies, effectiveness of the model	Documentation review, Stakeholders interviews
		Which are the pre-requisites to a neutral central storage	Evidence of efficiency and accountability mechanisms	Effectiveness and Efficiency indicators

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