



Evaluation of the utilization and management of UNHCR's light vehicle fleet

By Roy Herrmann

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Evaluation and Policy Analysis Unit

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Evaluation and Policy Analysis Unit
United Nations High Commissioner for Refugees
Case Postale 2500
1211 Geneva 2
Switzerland

Tel: (41 22) 739 8249

Fax: (41 22) 739 7344

e-mail: hqep00@unhcr.org

internet: www.unhcr.org/epau

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Overview

Efficient logistics are fundamental to effective UNHCR operations. UNHCR needs to professionalize its logistics capacity both in the field and at headquarters if it is to ensure that the organization is running as close to its optimal edge as possible. This calls for employing more qualified fleet managers/logisticians who are equipped with a fleet data management system linked to workshop services. It also means that non-expendable assets need to be understood and appreciated for their utility and not just as line items in a budget.

The size of UNHCR's light vehicle fleet and - due to its purchase and funding - of so many operational partners' vehicles, places the organization in a unique status in the humanitarian arena; and since no other agency operates on the same scale, or in the same way, none could readily serve as a model for fleet management.

While UNHCR is not a logistical agency, much of what it does depends on logistics. With such a demand for staff mobility, it is reasonable that the organization makes an appropriate commitment to the logistical apparatus and financial outlay that would enable the maximization of its many fleets. Senior managers need to appreciate the critical, if unglamorous, link that vehicles and transportation play in UNHCR's protection and assistance work. On average, 40% of UNHCR's annual non-staff costs are logistics-related. Over \$110 million is budgeted for these activities in 2005.

Not only are the vehicles the means by which staff and aid workers get to the beneficiaries, they represent a large capital investment that needs to be supported in order to achieve a maximum of efficiency. This supposes valuing vehicles beyond their initial investment and accommodating the recurring costs with sound management. Caution is needed to avoid pursuing savings that defeat their own ends.

The organization strives to find savings when purchasing new vehicles, but it must also find ways to reduce operational costs during the life of the vehicle. Purchasing a new Land Cruiser directly from the manufacturer can save \$3-4000. But the savings between a well-managed Landcruiser and one that is maintained less cautiously can amount to more than \$20,000 over five years, not factoring the difference in resale values.

Recommendations

- (i) **Fleet management and logistics should be professionalized in UNHCR.** Learning from the successful International Committee of the Red Cross (ICRC) logistics model, which has an autonomous department responsible for all aspects of logistics in field and headquarters, UNHCR should make every effort to upgrade, regularize and modernise the organization's overall logistics management capacity. In the event that UNHCR undertakes a major restructuring it should consider adopting a model along the lines of ICRC.

In the meantime, steps need to be taken to upgrade and strengthen the logistics function in Supply Management Service (SMS) to support operations in the field. In its current mode it lacks the human resources and tools to be accountable.

- (ii) **UNHCR should establish a headquarters and field-based cadre of fleet managers and logistics professionals.** Additional professional logistics posts need to be created for key locations, regionally or country by country, to ensure adequate coverage; logistics supervision should be sustained as vehicles age and operating costs rise. These are positions that will financially justify themselves in savings by reducing operational and workshop costs. Benefits should spill over and help in the areas of heavy transport, warehousing, air services and inventory control. A logistics coordinator in the form of a chief of section (P-5) should be created in headquarters to concentrate this function. He should be supported by a senior fleet manager and two senior logistics officers. The benefits of this augmentation will be felt well beyond light vehicle usage.

These additional posts should provide an enhanced capacity that would allow for short-term deployments at the onset of evolving situations: assessing, recommending and initiating for transport, workshop, staffing, and warehousing needs. A logistician, with knowledge of supply, should be included in all emergency assessment teams.

- (iii) **In larger offices, UNHCR's vehicles should be managed with the help of an electronic fleet data management system.** In consultation with the Management Systems Renewal Project (MSRP) team and Information Technology Training Service (ITT), SMS should adopt a vehicle data management system linked with other related elements of supply chain management and asset management. Benefits from such a system would accrue over years and justify whatever initial start-up costs there would be. It should also demonstrate UNHCR's commitment to efficiency to donors. UNHCR must remember that software is a management tool that still requires on-the-spot management and support.

- (iv) UNHCR management must develop a mechanism to allow for the front-loading of vehicle purchases directly from the manufacturer and reduce the number purchased ex-stock. Ex-stock vehicles are about \$4,000 more expensive than those bought directly from the manufacturer and often lack required options. Since UNHCR cannot order vehicles until funds are in-hand, it ends up buying over 60% of its new vehicles ex-stock, representing an unnecessary expenditure of greater than \$1 million annually.
- (v) UNHCR should seriously consider the benefits of participating in a 'common services' light vehicle depot in Dubai from which it could provide a pool of vehicles for itself and its partners in emergencies and normal use. If more is done to harmonise UNHCR's fleets with partners, savings and efficacy can be gained from a larger inventory of vehicles and spare parts purchased directly from manufacturers. In emergencies more vehicles would be on-hand for rapid deployments to UNHCR and partners. If the pipeline is well managed, vehicles can be rotated through the depot to meet normal demands reducing the need for ex-stock. A small UN logistics management team is required to ensure the optimal operation of the depot. Participation in the common service depot would not necessarily mean discontinuing the current Copenhagen stockpile.
- (vi) The Toyota HZJ 'Hardtop,' for short field distances, and utilitarian combis, for urban settings, offer efficient and less costly alternatives to models most currently used by UNHCR. These vehicles should be considered for use where appropriate. Using the Hardtop would increase flexibility to facilitate reimbursable loans between agencies and could expedite vehicle deployments.
- (vii) UNHCR should encourage and support UN efforts, perhaps under the impetus of the United Nations Joint Logistics Cell (UNJLC), to convince host states during humanitarian crises to streamline duty-free importations, transportation and transiting of assistance-related goods and non-expendable property for UN agencies and their documented partners. This should include vehicles for operational partners. Similarly UNHCR should promote options to deploy UN license plates, and special plates for collaborating partners.
- (viii) UNHCR should combine maintenance arrangements for both programmatic and administrative fleets. The budgetary rules that separate maintenance costs for UNHCR office vehicles and those of its partners should not prevent consolidating workshop arrangements where non-commercial workshops are employed.
- (ix) UNHCR, under the Controller, should proceed with the hiring of an actuarial consultant to identify the best options for UNHCR to adopt for insuring its, and its partners', vehicles- The actuary should consider the schemes employed by International Federation of Red Cross Societies (IFRC), ICRC, and Médecins Sans Frontières (MSF) in the analysis.
- (x) Defensive driving needs to be given greater emphasis in field offices. A basic standard for drivers should be established. Driver training needs to be augmented to include off-road driving techniques, basic maintenance and

common courtesy. A point system that penalizes violations, eventually resulting in discharge from duty, can be introduced where discipline is poor. Equally important is for UNHCR passengers to take responsibility to promote good driving techniques, and the value of safe and courteous driving as part of UNHCR's image in the country.

- (xi) Current procedures need to be reconciled to increase partnership and accountability between Headquarters and the field, for the disposal of vehicles after they have achieved their maximum utility or from insurance settlements. With the current procedures, monies revert to Headquarters while the field office is usually with one vehicle less. Proper management of vehicles must be acknowledged, not penalized, as it sometimes is under the extant procedure.

Introduction

“Among other operating costs, UNHCR might look to its transport and logistics sector as one area in which costs appear out of line with the benefits and services accruing to refugees. In many operations, UNHCR maintains a quantity and quality of vehicles for its own use that is well beyond what it would ever consider providing to IPs (implementing partners) and their frontline workers who are in daily contact with refugees. The costs and benefits associated with this sector of UNHCR merit an evaluation in their own right, to determine its value in terms of meeting UNHCR’s mandate, as well to explore more cost-effective alternatives to the maintenance and management of a sizeable fleet of expensive vehicles.”¹

1. The current UNHCR light vehicle fleet, including vehicles for partners procured with UNHCR funds, is an eclectic assemblage dispersed across a broad range of working environments. Any attempt to accurately describe or explain it would need to take into consideration the different road conditions, service regimens, usage by drivers, and the historical course of the country programme, as well as the makes and models of the vehicles themselves.
2. A recent summary using UNHCR’s software for non-expendable property, AssetTrak, indicated that over 5500 four-wheeled vehicles are listed as belonging to UNHCR. This represents an outlay of some US\$ 220 million over 10-12 years, not discounting for depreciation. In fact, possibly up to a quarter of these vehicles are no longer running but have not yet been reconciled with the inventory.
3. Assuming that one-fifth of the active inventory is no longer highly roadworthy, it leaves a base fleet of about 4400 vehicles. With an average annual renewal rate of some 500 new cars/year, UNHCR is replacing vehicles every eight, or so, years, not every five years as guideline principles advise. Factoring in infusions from new emergencies, the renewal rate is even lower. This suggests a fairly aged fleet.
4. After staff salaries, the costs associated with surface transportation are the organization’s largest year-to-year expenditure. Over the last four years UNHCR has averaged US\$9.6 million a year for the purchase of new vehicles for its partners and itself. This does not include operational costs, which can run two to four times the purchase price over the expected life of the vehicle.² Obviously, the better the management and maintenance the lower the operational costs and the longer the vehicle remains an asset of value (Annex 1).
5. The original question that spurred this evaluation, inquiring into the appropriateness of UNHCR’s fleet relative to its requirements, is too broad and

¹ P. 108 CASA Consulting, The community services function in UNHCR, EPAU/2003/02, March 2003.

² 4X4 field car: Cost Element/per kilometer: parts/US\$0.164; labour/\$0.022; fuel/\$0.083; depreciation/\$0.230; insurance/\$0.053; Total km/\$0. 552. Projected over 150,000 kms, the lifetime cost is nearly US\$ 83,000 of which only 30% is the purchase price. These costs assume good management and maintenance. Driver’s costs are not incorporated. Calculated from Swiss Francs on 10/01/05. Source: ICRC.

covers too many scenarios to answer definitively. From the observations possible during the research for this evaluation there did not seem to be any glaring examples of an excessive number on hand given the fluidity of the situations under which the offices were operating.

6. Many of the larger programmes visited were in states of transition. Offices in the Balkans were in the process of reducing their profile and gradually disposing of unneeded vehicles. In Guinea, where repatriation is underway and the numbers of refugees and staff in decline, there are many old and beaten up vehicles around the office, but they are kept because it is unlikely that they will be replaced, regardless of how much longer the repatriation takes.

Methodology

7. In the development and preparation for this evaluation it was expected that an experienced logistician would collaborate with EPAU in a critical analysis of UNHCR's transportation response, relying on both field-based observations and a quantitative analysis of available data.

8. Despite efforts to identify a logistician from within house, or from a contribution from a private company, no technician was identified and EPAU relied on technical input through discussions with appropriate experts in the field and in Headquarters.

9. A comparative analysis of utility and costs was not found to be viable in the absence of reliable records. There are too many critical variables (road conditions, drivers' habits, age/condition of specific vehicle) that affect the data to extrapolate meaningfully. Most other humanitarian agencies also lack standardised analytical data.

10. A total of six countries, two in Europe (Bosnia-Herzegovina and Serbia/Kosovo) in the process of downsizing and four transitional operations in Africa (Kenya, Liberia, Guinea and Ethiopia), were visited. While far from comprehensive, the itinerary represented a cross-section of operations in varying phases of the programmatic cycle. They included large operations with aged fleets; others were operations undergoing refocus of objectives, i.e. from country of asylum activities to preparation for repatriation.

11. This document is an evaluation of UNHCR's practices relating to aspects of its and its partners' light vehicle fleet, and not a manual for their management. For advice and guidance on supply chain topics beyond what is available in UNHCR Manual Chapter 8, the ICRC Logistics Field Manual, 2004 edition is recommended. The recently formed Fleet Forum (www.unjlc.org) is an emerging and dynamic fellowship of logisticians dedicated to increasing efficacy within the international and non-governmental organization (NGO) humanitarian community.

A gap identified

12. If it is said that an 'army marches on its stomach', perhaps it is fair to say that UNHCR protects refugees with vehicles. After staff salaries, costs associated with vehicles are the largest expenditure by the organization in the pursuit of its many

refugee-related tasks. It is with light vehicles that most UNHCR and NGOs staff get out of their offices and make contact with refugees and provide assistance or protection. Without reliable transport meeting these responsibilities becomes virtually impossible.

13. On average, UNHCR spends approximately \$9.6 million buying new vehicles. This does not include the associated costs of spare parts and maintenance, insurance, drivers and fuel. In the event of a major emergency, vehicle purchases can exceed this average significantly.

14. But, despite this large investment, little has formally changed since 1989 when a consultant employed by the Technical Support Service wrote of the organization's "lack of overall concepts for logistics in general and vehicle operations in particular."³ It is not that UNHCR mismanages light vehicles; rather it has not created the sort of logistical response that such an investment warrants to ensure efficacy.

15. The Headquarters' initiative, Action 2,⁴ in 2001, had the impact of eliminating many crucial logistics/supply posts in the field. Where posts were retained they were often downgraded. Different tasks that fall under the supply chain were consolidated under one professional supply officer. The recent trend has been to fill these posts with procurement officers and less frequently with persons with logistics/fleet management experience.

16. This reflects the tendency to overlook the management side of the non-expendable assets that have been purchased. The idea to assess UNHCR's utilisation of vehicles across programmes, and compare with other agencies, proved impractical. UNHCR does not methodically collect the data that is necessary to make such comparisons.

17. UNHCR is not alone in not having sufficiently invested as it should in this area. But it is essential that an agency with a strong reputation for humanitarian field work optimise its fleet's capacity in a systematic manner through sound management.

18. In past years some steps have been taken to create a more logistically-structured approach to vehicle management (vide: UNHCR Manual: Chapter 8), but these measures have been periodically undercut or eroded by the pressure of budget cuts.

19. Without the necessary data it is difficult to demonstrate the logistical corollary that investment in fleet management pays for itself by reducing waste and misuse.

³ P. 3, Zimmerman, Hans, *The Role of Vehicles in UNHCR Operations, A Report on Vehicles used by UNHCR offices and Implementing Agencies, Technical Support Services, TSS Mission Report 87/10* UNHCR Headquarters, Geneva

⁴ UNHCR/IOM/29/2001; UNHCR/FOM/28/2001, 2 April, 2001, UNHCR Headquarters, Geneva

20. Ultimately, if vehicles are not reliable, available or comfortable staff are less likely to travel to operational areas to do their work. Only so much of UNHCR's mission can be accomplished from behind a desk.

Findings

21. Twenty years ago, in 1984, UNHCR purchased 99 new vehicles, the most until then, that had ever been purchased in one year. In 2003, an average year, more than five times that many vehicles were bought for UNHCR and its partners. Over the last four years UNHCR has purchased, on average, 480 light vehicles per year.

22. In 1984 operations UNHCR might have staffed a sub-office covering 100,000+ refugees with a field officer or head of sub-office, supported by a field and administrative assistant, two drivers, with two light field vehicles for their transportation. Today, with a more articulated approach to refugee/returnee assistance and protection, the staffing and support could be five times greater. But the logistical response, especially in relationship to vehicle management, has changed little.

23. A review that the Central Evaluation Section (UNHCR) commissioned in 1992 concluded “organizational changes are required if UNHCR is to enhance its capacity in the logistics sector. While staffs from a number of different sections are currently involved in logistics activities there is no focal point to develop policies, systems and procedures, or to ensure an adequate flow of information between the various sections and offices concerned. As a result, field staff...are deprived of general guidance and technical advice, coordination between offices is weak, and the experience gained in past operations is inadequately exploited.”⁵ SMS has since been established, but it has not been sustained to the extent that is warranted.

Vehicle types and deployment

Road conditions/vehicle types

24. For simplicity, this report will refer to three basic categories of road conditions:

Category A entirely or almost entirely paved roads, similar to Western Europe.

Category B approximately 75% deployment on hard, paved surface, though with frequent potholes; balance of use on unpaved, mud, gravel, occasional high mountainous snow.

Category C primarily unsurfaced off-road driving, with frequent mud, rocks, snow, deep sandy conditions.

25. This paper separates light vehicles into two categories, a) light field vehicles with a 4X4 capacity, higher clearance than is common in most vehicles designed for travel on hard surfaced roads and b) vehicles produced for primarily hard surfaced

⁵ p.4, Central Evaluation Section, Review of UNHCR Logistics Policies and Practices, UNHCR EVAL/LOG/112, June 1992.

roads. Conformity with European Union environmental standards is of increased importance in vehicle selection. (The Terms of Reference note an analysis of ex-military heavy trucks; this will be discussed separately.)

Deep field category C

26. UNHCR's present light vehicle fleet is an amorphous composite, the product of numerous factors of the past dozen years. Despite a five-year/150,000 kms depreciation principle, compliance does not automatically mean replacement. In practice, there are no concrete rules under which replacement vehicles are approved at Headquarters. Decisions mainly come down to how well replacement, or additional vehicles, are justified in the request. There is no key which proportions the number of vehicles required by X number of substantive staff in an office.

27. To a large extent there has been a *de facto* harmonisation of UNHCR's light field vehicle fleet with the preponderance of the Toyota Landcruisers (HZJ 105) that have been introduced. (Definition: light field vehicle- transportation for staff and limited materials/baggage for use on largely unsurfaced roads, employing, on demand, 4X4 traction and surface clearance above that of sedans.) UNHCR retains a widely-dispersed residue of Nissan Patrols and, to a lesser extent, Mitsubishis, dating back to the early 1990s.

28. The vehicles that are not Landcruisers were justified for varying reasons. After-sales service was a strong justification for Nissan in Eastern Europe, where Toyota is not well established; elsewhere unavailability of preferred models led to the purchasing of second choices.

29. The manufacture and models that UNHCR purchases for its implementing partners are more varied. Probably the two most common are the long-wheel based Toyota station wagon, (HZJ-78), referred to as the 'hardtop' and the LN-166, the twin-cab Toyota pick-up truck.

30. Other manufacturers produce models that are similar to these Toyotas, but in most operational areas, where four-wheel drive and high clearance are crucial, the Toyotas have virtually captured the market.

31. This is not to say that there are no other models that could serve UNHCR's interest for off-road travel. However, in the interests of fleet harmony, the trend would suggest to stay with Toyota unless there is strong justification to switch.

32. After a six month test on major 4X4 vehicles (Isuzu, Landrover, Nissan, Mitsubishi and Toyota) ICRC undertook a rigorous analysis of how each model fared in terms of structural integrity, durability, efficiency and practicality and decided to continue with the current standard, the Toyota HZJ 78. Further research was unable to identify any other field trials which compared performance under Third World conditions.

33. Most staff in UNHCR are most familiar with the Toyota HZJ-78, called the 'Hardtop,' in its modified form when it is used as a field ambulance. The Hardtop, properly equipped, is \$4000 less costly than the commonly used Landcruiser and is considered easier to maintain and more durable, but a certain degree of comfort is lost. It is the standard for other field-oriented organizations, like MSF and ICRC.

(Annex 2) External fleet managers argue that with its suspension it is less comfortable at speed on bad roads than the Landcruiser. Some fleet managers see this as an asset if drivers are compelled to drive more slowly, thus reducing accidents and excessive wear and tear. Still, it is not clear how UNHCR staff would respond if they were limited to ordering only the Hardtop for category A conditions.

34. The Toyota Hi-Lux twin cab is often purchased when an open-bed pick-up truck is required. Its twin cab provides a degree of versatility and the price is less than the Landcruiser pick-up (HZJ79) truck. But its suspension is not really designed for continued, rough off-road driving. It is probably wiser to buy the Landcruiser pick-up truck where a pick-up is regularly required and use a van or a station wagon for passenger transport.

35. The standard three-door configuration of the HZJ-78 can be a security concern in the event of quick evacuation from the vehicle. There are reports that a five-door version could come on the market in mid-2005.

36. The ubiquity of the model has, in a way, become a justification for continuing to procure them. Their prevalence suggests broad availability of spare parts and of mechanics in far-flung locations who know the vehicles and can keep them running.

37. Two decades ago the Land Rover Defender (110) and the Toyota Land Cruisers were seen as head-to-head competitors, each with its own advantages over the other. But performance faults in the Land Rovers of the mid to late-1980s tarnished its reputation and it has been trying to catch up with Toyota ever since.

38. ICRC is currently underway with a three-year field trial with Landrover in Eritrea. Using the Defender they are working together to see what can be done to upgrade it for deep field conditions. UNHCR should maintain contact with ICRC to learn their findings after the trial ends.

39. In the meantime, the primary considerations for UNHCR to keep in mind are that after purchasing a model that is known to be sturdy and reliable, and is in harmony with the fleet, the critical factors relate to how those vehicles are used and maintained.

40. Only tropical models, vehicles with a minimum of computer-dependent diagnostic equipment, should be purchased for use in deep-field conditions.

Variable conditions category B

41. A vehicle that adequately meets the range of situations in which it is to be used is the primary factor that determines what is appropriate to purchase for Category B conditions.

42. Where some deep field travel is required it makes sense to maintain a few heavy-duty 4X4s to be deployed from staging points for use when and where required, while using less costly, but durable vehicles that meet all but the most difficult conditions present.

43. A less rugged, all-terrain vehicle such as the Toyota Prada meets the needs for versatility in Pakistan, where almost all travel is on surfaced roads. In Zambia there

is a possible option of using sedans to travel from the capital, Lusaka, to Solwezi, in the Northwest, or Mongu, in the West, both distances of about 600 kms, all on tarmac, and then using 4X4s for visiting camps and unsurfaced frontier areas. While this approach matches vehicles with the roads they are on, it entails having a vehicle and a driver on standby.

In-town category A

44. The era when it was believed that UNHCR required a luxury sedan, like a Mercedes Benz, to properly represent the organization is now mostly in the past, although the association of professional prestige with vehicle model is not completely forgotten. Feedback from the field reports that more than a handful of heads of office retain more than one office vehicle for their use to cover any eventualities.

45. Today, most heads of mission are able to fulfil their representational responsibilities in a Toyota Corolla, or another mid-sized, practical sedan. Volvos sedans are now the costliest models purchased for representatives, although they are not necessarily more economical than some Mercedes Benz models.

46. From site visits during research it was encouraging to see that most offices generally deploy their newer vehicles to the field and recycle the older for in-town duties.

47. The distance of the offices from operational areas is a factor on how vehicles are deployed. In the geographically larger countries, and where camps are dispersed, branch offices reasonably retain several newer vehicles to facilitate field missions and accommodate outside visitors initiating from the capital.

48. In most urban environments, where VHF antennas and large vehicles are not required, there are many transportation options now that are economical, but do not compromise reliability. One option for consideration are the versatile combi wagons now in the market, such as the Peugeot Partner. These vehicles are priced at about 60% of a Toyota Corolla, carry 3-4 passengers comfortably, have higher clearance and more storage. They can be a good alternative where a low profile is desirable

49. After-sales service and the availability of spare parts through licensed workshops are important considerations in determining which vehicles are purchased. In some locales, offices have leveraged advantageous relationships with commercial agents, resulting in lower costs and more responsive service .

Vehicles for partners

50. Roughly 65% of the vehicles that UNHCR purchases annually are bought for its implementing partners, both NGOs and governmental counterparts. But many of the international NGOs are no longer as dependent on UNHCR for their transportation as in the past.

51. As bilateral funding to NGOs increases, there are some in UNHCR who question whether it should be paying for its partners' vehicles at all. Or, alternately, should the traditional arrangement whereby UNHCR cedes use of the vehicles, but

retains ownership, be rethought? Is the right to redeploy vehicles worth the liability that ownership involves?

52. In some countries, such as Bangladesh and Kenya, UNHCR has no real choice but to retain ownership of vehicles in order to avoid high duties.

53. This discussion has implications for UNHCR as to what its obligations and responsibilities are, and to what extent are implementing partners' agents, or partners, to UNHCR.

54. In confidence, some partners complain that there is a double standard for UNHCR's office vehicles and those purchased for its implementing partners. UNHCR is seen to replace its vehicles well before it does those of its partners. In practice, IPs, especially national agencies, are reluctant to raise the issue with UNHCR and take what they get.

55. There is no operational justification for this discrepancy; in most cases partners use vehicles under more demanding circumstances, more frequently and employ their vehicles in service longer.

56. Another practice that can be offensive is when UNHCR disposes of one of its aging and expensive-to-run vehicles by 'handing it over' to a partner. This may relieve UNHCR of a financial burden and, at the same time, 'help' a partner. Agencies can be desperate enough for additional transportation that they will accept these money traps, under estimating the cost of keeping them on the road. These practices can harm the sense of partnership which is so important between UNHCR and its partners.

57. NGOs tend to have smaller funding pools for maintenance, particularly as their fleets age. When there is a serious mechanical problem they have difficulty finding the funds for proper repair work.

58. If their fuel allocation is not adequate for their workload, NGOs may have no choice but to use maintenance funds for fuel.

59. As their vehicles depreciate operational costs go up, but budgeting does not necessarily accommodate this natural phenomenon. Although most partners respect servicing intervals, they may be obliged to cut corners and delay repairs. This manifests in chronic cracked windscreens, broken air conditioning and slick tyres.

60. Unable to hire qualified drivers or have a vehicle in the workshop for more than a day, it should not be surprising that IP vehicles age faster than UNHCR's. This is not necessarily an indication of abuse.

61. UNHCR should not lose sight of the fact that it purchases vehicles for IPs with the objective that they will be used for their work. Constant off-road use takes its toll on vehicles.

62. Misuse of vehicles, or at least improper management and maintenance, can be a problem, especially with some governmental partners. In some countries the issue is highly sensitive and, ultimately, has implications for refugee protection.

63. In some remote locations where refugee camps are situated, local civil servants do not have public transportation options. This leads to UNHCR-bought vehicles being used to transport wives to market and children to school. The subject may be pursued tactfully, but it is awkward when UNHCR staff use office vehicles in a similar manner.

64. As with UNHCR's vehicles, the efficiency of partners' vehicles often comes down to where and how they are deployed. Each vehicle seems to have its own story. A review of one governmental partner's fleet showed that they were able to keep some vehicles operational in the field for over 300,000 kms, while other vehicles failed before half that. There was a broad pattern of usage with some vehicles averaging 30,000 kms/year; others, deployed differently, averaged a half, or a third of that. Ideally vehicles should be tasked rationally and appropriately, with the stronger vehicles deployed for the most difficult terrain. These are issues of good management and discipline.

65. Greater effort should be made to help partners identify vehicle models, and options, appropriate to their needs. This will help them do their job more effectively. Purchasing inappropriate transportation to save a few thousand dollars is uneconomic.

66. Some national NGOs passively assume that 'beggars can't be choosers' and settle for minimum transport when a more costly, but vigorous, vehicle would serve them, and their beneficiaries, better and for longer.

67. The increasing bi-lateralisation of refugee funding means that many NGOs are less dependant on UNHCR. Vehicles, and maintenance arrangements, purchased with funds from other sources may not be in harmony with UNHCR's approach.

68. Duty on imported vehicles for IPs has cost implications that affect not only the purchase price, but also fuel and insurance costs. In some countries UNHCR has no alternative but to share UN license plates with partners as the only way to avoid paying duty. This can put UNHCR in liability in the event that the vehicles are used irresponsibly.

69. UNHCR offices should work in concert with other UN agencies, perhaps under the auspices of the UNJLC, to promote more beneficial arrangements where international contributions are given for humanitarian burden sharing with hosts.

Field vehicle management

Drivers

70. To a large extent, the fate of a vehicle rests in the hands of those who drive it. In most UNHCR offices, official vehicles are driven by staff drivers. UNHCR drivers are often a core component of the character of the office. Besides their core responsibilities, they furnish institutional memory, local knowledge, news and translations. They can be the difference between a routine safe journey and a disaster. It is not difficult to see how in some offices staff can become dependent on their drivers and lose track of their professional relationship.

71. Chapter 8 of the UNHCR Manual contains valuable information for drivers, and their managers. Some administrators and senior driver/dispatchers are familiar with it and some have even distributed the relevant sections to drivers.

72. As one would expect for an organization as diverse as UNHCR, the skills and ability of UNHCR's drivers range across a broad spectrum. Nearly all offices test drivers before hiring them, with the tests administered by the senior driver or an administrative officer. This does not guarantee that drivers always drive with the required caution and skill.

73. In the field, the white UN Landcruisers, with their distinctive markings and antennae, are perceived as the kings of the road. Drivers absorb this pride, but, if not checked, it can take on the form of a reflected sense of privilege when driving. Supervisors, particularly international staff, need to consider what their own behaviour signals and what precedents they are setting.

74. Drivers, if not disciplined, tend to sacrifice safety for speed. And bad practices, if not corrected, can become habitual. Drivers need to be aware that they are not the only one on the road, and other drivers may not be as skilled or they could be driving vehicles that are not completely roadworthy. Drivers need to exercise greater defensiveness, like using turn indicators when making a turn.

75. Travelling constantly on rural, rough roads, negotiating potholes and corrugated washboard, camels and goats, lead drivers to develop unorthodox driving techniques. To a certain extent they are a response to the remote road conditions; but, if they are not checked, they come seriously close to dangerous driving.

76. In the worst examples experienced, drivers intent on reaching their destination as quickly as possible are oblivious to life outside their cabin. Pedestrians, many carrying loads of firewood on their heads, have no choice but to leap into the high grass which grows down to the road to avoid being hit. No doubt some of them are refugees.

77. Supervisors riding as passengers have become so habituated to this style of driving that they are unlikely to admonish or correct the driver, and are unaware of the image they leave behind.

78. It is obvious that drivers need to always be alert to react effectively. This is not always possible when exigencies of service force drivers to accumulate mountains of overtime. Large amounts of overtime for drivers are usually evidence of an inadequate complement of drivers or inadequate planning for the use of drivers and vehicles.

79. Most of the avoidable workshop costs stem from poor driving habits or inadequate knowledge of how to respond to a particular situation. Rudimentary rules and practices are unknown to many drivers who are expected to know better like the proper front hub engagement for four-wheel drive, how to position hands on the steering wheel when driving, or when to turn the engine off when waiting.

80. UNHCR should, in conjunction with other humanitarian organizations, adopt a bound fleet manual written so drivers and dispatchers can easily understand. The

manual should emphasise safe, defensive driving, especially under field conditions, and preventative maintenance. The IFRC's Fleet Manual is a good example, but would require translation into, at least, French and Arabic.

81. In conjunction, knowledgeable professional and national staff should constructively reinforce good driving and vehicle management when they are passengers.

Dispatching

82. In most offices the responsibility for dispatching vehicles comes under administration, with the direct day-to-day management of the drivers and fleet under a dispatcher or senior driver. If not given adequate support, being the dispatcher in an office without enough vehicles or drivers can be one of the more harrowing jobs in a UNHCR office.

83. Most offices have instituted routine 'vehicle request forms' that staff fill to obtain a car and driver to travel outside the office. The success of this system depends on the ability of staff to plan, coupled with the quantity and reliability of the drivers and the vehicles.

84. In some of the larger and complex offices it requires the endorsement of an administrative officer to release a driver and car. The disruptions this must cause are obvious, but some managers think that such measures are required to control drivers and compel staff to use vehicles in a more rational manner.

85. The systems by which vehicles and drivers are allocated vary greatly. Again, it is a problem of reconciling what is available with what is needed. Even within the best organized offices it is difficult to forecast all needs and programme the dispatching of vehicles completely. Most offices still have need for further fine tuning.

86. In general, vehicles can be allocated and dispatched from a pool, in which the dispatcher is responsible for balancing resources with needs, as they arise or have been scheduled, or sectorally, where a section, like the protection unit, has a set number of vehicles with which it must meet its own needs. Some larger offices use a mixed system, with one or two vehicles assigned to each unit, with the balance allocated though the pool as needs emerge.

87. Where a vehicle is assigned to a camp, and all staff going there must go and return together, there will, inevitably, be down time when one or another of the passengers must attend to some urgent need or meeting first. Or, once in the camp, some staff will finish their work early and will have to wait for the last person to finish before departing. While this is an efficient way to deploy vehicles, it does tend to make staff subservient to their transport.

88. When camps are within 10-15 kms of supervisory offices, shuttles may be feasible. But this is not advisable for camps far from the office on poor roads. Pooling rides with other agencies is an option, but in many cases UNHCR staff are reluctant to travel without their own vehicles.

89. It should not be surprising that vehicles are seen as reflections of status among staff. Consequentially there is a tendency to assign vehicles more on the basis of seniority than need.

90. There is anecdotal evidence of biases in the assignment of vehicles to units; community services tend to come at the bottom of the pecking-order in many offices. One may assume that since community service is often staffed with women that women are discriminated against in the distribution of vehicles. Interestingly, no woman interviewed volunteered this connection.

91. Status and entitlement in respect of the assignment of vehicles is best handled through stricter (self-)discipline and better planning from day to day. Not all meetings and needs can be anticipated, but in some offices there is room for improvement. Transparency, where utility is the guiding principle, should determine allocations and the more senior staff must set a model for this.

92. Paramount to a discussion on the allocation of vehicles within an office is how vehicles are assigned to drivers. There is unanimity among fleet managers that dedicating drivers to their 'own' vehicle, making them accountable, results in more responsible management. Unfortunately there are 'social' factors, such as equal opportunity for drivers to earn daily subsistence allowance (DSA) on mission that make the hard and fast dedication of vehicles difficult. Drivers attached to older vehicles are less likely to go on missions, because it is preferable to send the newer vehicles on long distances. Offices with more vehicles than drivers complicate the application of this principle.

Maintenance

93. A number of recent Office of Internal Oversight Services (OIOS) audits have frequent references to issues that would normally fall under the purview of supply-chain management and use of vehicles. The frequency with which these issues come up argues that greater attention is required to efficiently manage non-expendable property.

94. While many of the issues noted by the OIOS stem from inadequate adherence to procedures as detailed in the UNHCR Manual's Chapter 8 it is unrealistic to assume that a programme officer armed just with the manual could be expected to properly manage a complex supply-chain/fleet operation.

95. Rather, in today's UNHCR, with the investments that are involved, this requires skilled staff, with the relevant qualifications, with support staff and information systems. There is strong incidental evidence that advocates that these costs would justify themselves through efficiencies and savings.

Workshops

96. Light vehicle maintenance arrangements vary from programme to programme. In more developed countries, mostly operating under category C conditions, some offices have purchased vehicles because of strong post-sale service or the known reliability of nearby licensed workshops. This is reasonable, especially if the office has access to a competent mechanic to periodically monitor the quality of the

commercial service. Costs may be higher than small, private workshops, but if the arrangement is working properly there should be benefits over time.

97. The standards outlined in UNHCR Manual Chapter 8, together with the service regimen recommended by the manufacturer, should be adhered to whether service is provided commercially or through an implementing partner.

98. Regular preventative maintenance is essential. Delaying an oil change by 1500 kms in dusty conditions is the difference between reasonable operating costs and routine engine overhauls after 60,000kms, as one partner has yet to learn.

99. Where field operations are aggravated by adverse road and working conditions, remote locales and large numbers of beneficiaries, fleet management is correspondingly complex. Supporting and maintaining an active operation depends on mobility, making efficient fleet management essential.

100. UNHCR has developed several frame agreements with large NGOs to provide workshop services to humanitarian fleets. These arrangements have had varied success in terms of the quality, cost and reliability of the work.

101. A number of uncertainties affect the efficacy of creating workshop arrangements. At a new operation's genesis it is not evident for how large and for how long an operation will be and, in turn, how many vehicles and what sort of service/workshop facility will be required. Lagging financial commitments from donors have a bearing on the extent to which UNHCR can responsibly commit itself and build up an operation.

102. With so many start-up costs up front, the initial financial commitment to the organization can seem daunting. These costs need to be understood within the multi-year context. Maintaining vehicles properly from the start means lower operating costs over time, as was demonstrated recently in Chad.

103. A reasoned fleet disposal strategy is another critical element in controlling operating costs. Identifying the optimum vehicle replacement point, calculated in years or mileage, allows for the disposal of vehicles before maintenance costs peak as major components begin to fail. UNHCR employs a 5-year or 150,000km guideline, but this should be fine tuned to local conditions.

104. In recent years UNHCR has developed a number of options for workshop management where no plausible alternatives existed, including Gesellschaft fur Technische Zusammenarbeit (GTZ), Danish Refugee Council (DRC), Atlas International and CARE International. In general, the experiences have been advantageous at their peak.

105. The start-up of an operation in an emergency and the winding down when the funding starts to wane are the most problematic phases; once the initial bumps are sorted out the agencies have run effective workshops. To a great degree, the early success of the logistical response is linked to the flow of funds.

106. In order to avoid the overhead cost of some workshop arrangements UNHCR has established its own workshops for the exclusive use of UNHCR office vehicles. With the data available it is difficult to assess the efficacy of this course. From casual observations it would seem that there are costs for UNHCR in terms of supervision,

inconvenience and inefficiencies of performance that are not factored into the calculation. There could be greater savings for UNHCR if its private workshop managers worked directly with the operations workshop management to increase efficiency, which would result in savings across the board - not just for UNHCR.

107. It is impossible to divorce vehicle management from maintenance. The better drivers maintain their vehicles the less frequently they will require non-routine workshop services. Assigning drivers to a specific vehicle is the best way to oblige drivers to take responsibility for its welfare and condition. Then, when a spare tyre is deflated, or the first aid kit is missing, there is no question who was negligent.

Spare parts

108. Maintaining adequate fast-moving spare parts and key hard-to-procure parts in proper quantities is a constant challenge. This is particularly true when restricted to annual budgeting cycles where extended lead time is necessary to anticipate next year's needs. Forward planning requires some budgetary flexibility.

109. It is hoped that with the introduction of MSRP procurement procedures will be facilitated. For this to be fully effective a procurement strategy with a detailed purchasing plan must be elaborated and orchestrated within global frame agreements for harmonised fleets.

110. In many locations where UNHCR operates, the securing of replacement 'genuine' spare parts can be the cause of major aggravation. A major industry has developed for clients who cannot afford expensive 'genuine' parts. Ensuring that UNHCR's vehicles, and those of its partners, receive genuine spares, and that they have not been diverted by enterprising drivers or mechanic, consumes much energy. Accusations and counter-accusations have soured some major workshop arrangements. In these situations the workshop representative and a knowledgeable UNHCR official need to sort out the procedures and improve the communication and monitoring by both parties.

111. But, significantly, several workshop managers have said that they did not think their UNHCR counterparts fully comprehend the technical aspects of the issues and only looked at the budgetary aspects.

112. Spare part management is more complex where a fleet is composed of numerous makes and models from many years, with each requiring it's own stock of parts. 'Dead stock,' are spare parts that have been procured that become unusable when vehicle models become obsolete. This can mean losses in the hundreds of thousands of dollars if parts cannot be sold or redeployed.

113. Avoiding dead stock requires managing the inventory skilfully: balancing inventory with usage, coordinating bulk purchases, storage and transport time.

114. The quickest solution to minimizing dead stock is to harmonise fleets and employ a data management software system that interfaces the inventory with the workshop. Pooling with other agencies that use the same models would increase options and ensure fresher stock.

Equipping vehicles

115. UNHCR's SMS maintains standards for vehicles, including options considered necessary, while avoiding extravagance. This is a good basis to initiate procurement, but a location-specific assessment may be helpful. SMS tends to assume that the field offices know what they need; but without a knowledgeable advisor in the field, offices often don't know their options and what may be appropriate equipment for their particular conditions.

116. Snorkels are essential for Landcruisers operating in dusty conditions to avoid clogging of air filters where the air intake is over the wheel well. Yet many deep field vehicles do not have snorkels.

117. Where carrying a second spare tyre is recommended or where drivers remove spares from beneath the chassis to ensure access in deep mud, it makes sense to regularize roof racks, and avoid having tyres taking up space in the back.

118. Tyre treads, width and ply are other items that need to be matched carefully for conditions. First aid kits need to be replenished more regularly and kept in the vehicles at all times, not in the dispatcher's office. Equipment like shovels and anti-skid chains for mud or snow, need to be in place throughout an operation. Despite their advantages, PVC (plastic) seats should not be ordered for hot climates.

119. Bench seats in the rear are an unnecessary expense. They are rarely used by UNHCR staff and take up space that could be used otherwise. If staff need to be moved regularly in groups larger than six passengers, vans and small buses might be an alternative.

120. If there is no logistician or fleet manager in the field to advise on equipping the vehicles SMS should be more proactive and help offices to identify the suitable options for their circumstances. An expanded checklist detailing possible obstacles that might be encountered on the road, and their appropriate solution, would help.

Security implications

121. Responding to the increased threat that aid workers encounter in the field was not a particularly expansive subject in earlier logistical reviews. Now, it is a concern that must be factored into every new situation, and regularly assessed in more established operations.

122. Considerations such as armouring of vehicles, travelling in tandem under Minimum Operating Security Standards (MOSS) and the relative safety afforded by larger vs. smaller models need to be weighed for their appropriateness in each specific situation.

123. Many staff feel more secure in a Landcruiser-like 4X4, even in urban capitals, sensing that their size and weight provide protection, and the traction and chassis clearance facilitate extraction from dangerous situations.

124. On the other hand, 4X4s are more visible and might draw unwelcome attention. 4X4s are often highly coveted in some locations making them more vulnerable to car-jacking than smaller, less conspicuous transport. Further, data

compiled in developed countries reveals that 4X4s, with their higher centre of gravity, are more likely to roll.

125. Armoured vehicles, available with their progressive levels of protection, present another dilemma for management. Only the most elaborate, and costly, defensive measures would protect occupants in a vehicle under determined attack. At the same time, armouring or ballistic blankets can create a false sense of safety and lead staff to take risks they might not otherwise have considered.

126. Armouring a standard 4X4 adds significant weight to the vehicle, increases wear and tear on brakes and chassis and severely affects the balance of the vehicle when in motion. Their additional weight makes them more expensive to transport, particularly by air.

127. The level of protection provided by armouring varies with factors, i.e. velocity, proximity, intensity. B6 armouring, used for level 4 threats, should stop short bursts from a high-velocity weapon; but it is generally too costly to consider for more than a few office vehicles. Unless there is a clear intent of how armoured vehicles will be deployed it is unlikely that the one or two that are armoured will be in place when and where they are most required.

128. Where MOSS requires all vehicles to travel in convoy the impact on fleet management is considerable. Ultimately it is the responsibility of the qualified Field Safety Advisor (FSA) on the ground to determine the right response to the perceived risk in an area. MOSS measures should be constantly reviewed to avoid their becoming unnecessarily cumbersome.

129. Proper communications equipment is rudimentary when working in unstable areas. This requires that bases are properly manned. Radios need to be purchased well in advance and should be installed before the vehicles are deployed. Strict security procedures in some countries can delay clearance of new radios by months.

130. While radios are an important component of maintaining secure operations, they can become a liability in themselves. The frequency of radio contact with base and other vehicles, if not held to a minimum, can seriously distract drivers and jeopardize safety. This is especially dangerous in urban traffic. There are many situations where staff travelling as passengers would be better served speaking directly on the radio, instead of relaying information through their driver.

131. Seat belts should, normally, be used at all times. However there are situations where persons reaching to undo seatbelts have been injured when car-jackers overreact thinking the passenger is reaching for a weapon. Local security advisors should know the relative risks and advise staff accordingly.

132. Anti-theft devices are standard equipment in most field locations. Of course if they are not engaged when parked they are not effective. There have been several cases where IP drivers claim to have stepped out of their vehicle for only a minute at the market, only to return and find it stolen. UNHCR must insist that anti-theft devices be engaged or the partner is held accountable. It is common knowledge that these devices are not foolproof and that in some high-risk environments additional measures may be necessary to protect vehicles.

133. Airbags are now a standard safety feature in Europe where traffic and speeds can be considerable. Their benefit in vehicles deployed off-road, and presumably driven at low speed, is less obvious, especially assuming that seat belts are worn. Even in view of this it may be difficult to justify the expense of \$550 in 4X4s. Rather, drivers and staff should be proactive and wear seatbelts and drive cautiously.

Fuel

134. No related issue is more energy consuming and contentious than those associated with allocating fuel day-to-day, with the different measures that have been incorporated to foil theft and the sale of fuel by drivers and others who may have access. As international fuel prices rise, the rate of loss, and the temptation for illegal gain, increase. It is an important concern for managers, but they must be careful not to lose sight of other aspects of fleet management. After all, vehicles that are not well maintained are also a major source of fuel loss.

135. Monitoring usage rates is simple and can be done regularly if there is a will and a need. When a vehicle seems to establish an average consumption rate under set conditions, it is worthwhile for management to test them under more controlled circumstances to see if the average stands scrutiny.

136. More countries are beginning to adopt European emission standards. Meeting these standards implies more complex engines that rely on computerisation. Where rural workshops are unfamiliar with or lack the equipment to deal with the new technology vehicles will have to be transported longer distances to more sophisticated garages.

Non-official use of vehicles

137. The IOM/30/2001, *Use of Vehicles in UNHCR*, extensively lays out the guidelines for non-official use of office vehicles. (These guidelines are currently under revision to incorporate changes recommended by the Inspector General's Office.)

138. In general, it appears that the guidelines are adhered to, and where the application is fuzzy there is usually a sound explanation. With increasing numbers of staff on fast track lines, secondees, UN volunteers, or on mission, there is considerable demand for vehicles after hours from staff who cannot be expected to buy their own cars given their contractual status.

139. Problems develop when staff see their access to an office vehicle as a right rather than a courtesy. This includes where offices provide staff shuttles. Staff must understand that official use takes precedent over private and managers must, and generally do, allocate vehicles transparently. Seniority and status are unavoidable aspects of the equation. Managers should recognize that they set an example for their subordinates.

Headquarters/field vehicle management

The state of the fleet

140. The evaluation's limited itinerary was extensive enough to demonstrate that UNHCR's fleet is too vast to generalize. Each programme has its own particular issues. Transportation is a large cost element shadowed with uncertainty as to when and how Headquarters will allocate funds to replace vehicles. Probably no budget line in an office's submission is as emotive as that for new vehicles.

141. One of the recurrent factors which dampen proficient fleet management is the uncertainty of if and when vehicles will be replaced. This leads offices to hoard vehicles in the event of breakdowns or unanticipated changes in the programme. Several offices recounted how they had plotted detailed plans for downgrading their programme, having removed drivers' posts and decommissioned vehicles, only to be learn that the withdrawal strategy had changed. This may be inevitable, but it does affect effective fleet management.

142. There are no real guidelines which determine the cycle for ABOD replacements or new vehicles for partners. A fixed system in which costs are deferred over five or six years would encourage more aggressive planning. Also regularising the cycle and selling used vehicles when they can still fetch a reasonable price is a rational approach.

143. Most offices share displeasure with the current procedure that directs proceeds of disposed vehicles to Headquarters. Field offices believe that they are often penalized by giving up a vehicle and getting nothing in return. Many volunteered that some recycling of proceeds and a predictable replacement policy would foster greater accountability and efficiency.

Fleet managers

144. Supply chain management, comprised of sourcing, delivery, asset management, support implementation (similarly described as: procurement/supply, pipeline, warehousing, transport, workshop management), is under-appreciated in UNHCR. The reason for this is not clear, but it may be a consequence of a financial control management system where the emphasis is on expenditure at the cost of utility.

145. There is inadequate support structure at UNHCR Headquarters for logistics/fleet management beyond, essentially, the supply and procurement done by SMS. Many of the skilled logisticians/fleet managers who had worked for UNHCR are now on unrelated posts, exhausted after years in the field and feeling that they had reached the ceiling in their field with the organization.

146. This is unfortunate since the major costs of owning a fleet come not from the purchase costs but from the operational running costs. And this is where the logisticians are most sorely missed.

147. Managers in other organizations estimate that with proper guidance, employing properly qualified technicians and an electronic data management

programme, a minimum of 15% would be saved from operational costs almost immediately, with savings of around 40% reasonably attainable.

148. The difference in operating costs (spare parts, down-time, fuel wastage) between a well-managed and poorly managed vehicle over a six-year period can run over \$35,000. In this light, the difference in cost between the preferred equipped, high-end 4X4, and a less costly alternative is relatively insignificant. The fact that UNHCR currently does not have the data needed to analyze its fleet efficiency strongly implies that its expenditures are on the higher end of the graph.

149. Operating costs begin to increase after a vehicle has been on the road for two years. This is often the point, after the peak of an emergency, when UNHCR tends to cut its logistics posts and tries to economise with lower graded posts that do not attract the skilled professionals that are required.

150. The array of issues that affect the efficient use of the vehicle fleet are too complex to deal with formulaically. When the size of a country programme fleet exceeds fifteen, or so, units there is a managerial and economic justification for having a qualified supply chain officer to make technically and financially sound recommendations to senior management and Headquarters. Often these issues need to be assessed within a multi-year implication and not just within the context of the current year's programming cycle.

151. As the case in Ethiopia ⁶ illustrates, as long as staff stay within the budget it doesn't register if the vehicles are worn out, literally, in the process of maintaining them. The alternatives, like create new posts for local mechanics with small shed workshops, or a mobile workshop with a mechanic, may not be authorised by Headquarters, desiring to cut administrative costs. The financial justification of the small workshops is not feasible because the comparative data is not easily available.

152. In some offices where there is a logistics officer the incumbent lacks the seniority or broad technical expertise to argue for the appropriate course over the long term, or to defend more costly, but justifiable, options.

153. Some in UNHCR Headquarters say that the organization doesn't have the technical staff to meet the logistical needs in the field; but the salary for a P-3 or P-4 is adequate to draw qualified, interested logisticians from outside .

Fleet management data software

154. With fleet data software a fleet manager would be better able to analyse vehicle usage, maintenance, fuel consumption and, ultimately, increase efficiency and reduce costs. ICRC has demonstrated that this is feasible, but to achieve savings requires more than just the software.

155. Although there are several fleet management software packages on the market, UNHCR has the in-house capacity to produce a programme that interfaces with MSRP, which is PeopleSoft-based .

⁶ (See para 32. OIOS Audit of UNHCR Operations in Ethiopia, 03/19, August 2003, "In some cases vehicles were sent from Gambella 700km to Addis Ababa for a regular check-up, which is due every 5000 km. Given the distance involve, this is neither practical nor cost effective (fuel, DSA for drivers)."

156. The largest hurdle now seems to be selecting the software and making the commitment that is required to maximise it. Data must be entered and analyzed regularly, and there needs to be someone able to prescribe the appropriate response to a problem.

157. UNHCR's AssetTrak is an inventory programme, and it does not incorporate the parameters that are integral to active fleet management. As an inventory tool it suffers from inadequate attention and support from offices, often simply because focal points do not have the time to update data.

158. GTZ has its own recently modified software, PM-II, that it employs in its UNHCR-funded workshops. Given that these are some of the organizations most expansive programmes, an argument could be made to harmonize UNHCR's fleet management data around the GTZ software, but it would need to be Window compatible. Almost any fleet management software will be an improvement on the current situation; but whatever decision is made should be applied systematically and with commitment by the organization.

159. There are other electronic applications that offer different elements of fleet control capacity and have their appeal. But before committing itself UNHCR must ask itself what it hopes to gain from a new technology. Is it worth the cost and is it really useable for where it is being considered?

160. Global positioning systems (GPS) tracking is widely used for monitoring commercial trucks and might be of use in UNHCR vehicles where carjacking is a threat or where drivers misuse vehicles. But the cost of the benefit must significantly exceed that of the intervention to be justified. In the more risky environments in which UNHCR operates increased insurance may be a more realistic option for protecting expensive assets, rather than depending on security forces to recover a stolen vehicle before it is transhipped or disassembled for parts.

161. Drivers' habits and vehicle usage can be monitored through a device such as Siemens' VDO. The system can be set to graph parameters like speed, braking and gear-shifting patterns. It does not have a GPS component to locate vehicles. At a cost of approximately \$500/unit one agency reported that the equipment did have an impact on drivers' performance, after the poorer drivers were identified, but whether it was worth that expenditure was less certain.

Stockpiling of vehicles

162. It is when a new emergency erupts and UNHCR does not have a sufficient number of properly equipped vehicles available that discordant vehicles tend to be introduced into a fleet, from which the problems of multiple spare part inventories ensue. Where transport is urgently required, vehicles need to be purchased quickly. Purchasing from local dealers, ex-stock, can cost 25% above that which UNHCR gets by ordering directly from the manufacturer. The organization recognises the problem (vide: IOM 88/2003, FOM 88/2003) but has not sorted out the cash flow element that causes it.

163. Conversely, many vehicles warehoused, or stockpiled, can mean funds are tied up for periods of time.

164. Maintaining a harmonised stockpile with broad basic standards with at least 50 vehicles is a start. To ensure that the vehicles don't get stale new vehicles should be rotated through the stockpile, and stockpiled vehicles, if not required for an emergency after six months, deployed to the field where UNHCR offices or IPs are due for replacements under the annual programme.

165. There should be capacity to prepare vehicles for specific needs where they are stockpiled. Fleet preparation should include the installation of necessary radios appropriate to their destinations. This will help to avoid, delays where vehicles are parked as they await radios, or, worse still, are deployed without the radios. (Drawn out procedures for customs and security clearance of radio equipment is a disruptive nuisance in some countries.)

166. Sharing stockpiles with other agencies, if in harmony, could reduce the period of time that vehicles sit waiting deployment. Using Dubai to stockpile, with its advantageous siting between East Africa and Central Asia, is an option that justifies greater thought. If UNHCR can pool vehicles in a strategic stockpile with other agencies it will increase flexibility. The Copenhagen stockpile might be subsequently reduced from its current target of 30 vehicles.

Vehicle redeployments

167. Redeployment of vehicles no longer required by a programme can be economic. But minimum guidelines are the difference between saving money and wasting it.

168. Determining whether a vehicle merits redeployment must first be established. Prior to initiating any redeployment a comprehensive inspection is essential to determine road-worthiness. Mechanics knowledgeable with conditions in the concerned destinations should consult at the beginning of the process to determine the appropriateness of the vehicles.

169. As a rule of thumb, 60,000 kms of use would be the limit for consideration for the redeployment of light vehicles; heavy trucks have a longer life. Otherwise it is often wiser to either sell or hand over to a needy partner.

170. The distance of the redeployment is a consideration. If it is across one frontier, from, say, the country of asylum to the country of origin, redeployment is fairly straightforward. Stocked spare parts could be transported in the redeployed vehicle.

171. But where distances are greater, and transport costs are high, concerned offices need to consider the remaining life in the vehicle, the appropriateness of the model, availability of spare parts and fuel and steering-wheel side.

172. For most redeployments, or disposals, the original documentation is required by the authorities. Missing titles, invoices, and registrations are one reason many old, inoperable vehicles continue to be carried in UNHCR's AssetTrak. Without the documents UNHCR cannot account for their customs status to host governments as a prerequisite for their transfer or legal disposal.

Insurance

173. UNHCR's SMS is currently considering how it might better address the issues relating to vehicle insurance. Under current practice, field offices are limited to third-party insurance, with more comprehensive coverage normally discouraged.

174. It is difficult to judge to what extent this policy makes sense for the organization. Not all accidents are reported to Headquarters, and when they are the information is not compiled in a manner that is suitable for easy study.

175. By not carrying more extensive insurance UNHCR is, in effect, self-insuring its vehicles, even though no funds go into a 'fund' from which monies can be used for repairs or replacements. Instead, by not purchasing insurance there is an implication that the savings that would have gone to insurance will be freed from elsewhere in the event of an accident or theft. It is not clear how institutionalised this is, though.

176. As an alternative UNHCR may want to consider a more structured approach, like that used by IFRCs, in which money is collected, per vehicle, into a self-managed fund which can be used in the event of accidents and loss (CHF 240/year for third-party; CHF 230/year comprehensive.) With good fortune and good driving, IFRCs has found that they can access the fund periodically for other purposes and still retain an adequate base.

Leasing as an option

177. In recent years leasing of vehicles has generated discussion within the aid community as an alternative to purchasing vehicles. There may be situations where leasing is justifiable, e.g., a clearly defined operation which dovetails with available leasing terms; urgent requirement for vehicles, where leasing is available and the distributed cost is below that of air freighting.

178. But leasing is not renting and has longer term contractual obligations which can be excessively costly.

179. Using information from Toyota Kenya as an example, a 36 month lease arrangement for an appropriately equipped Hardtop (HZJ78) is about \$36,540, while the same vehicle can be ordered directly from the manufacturer for \$10,000 less. At the end of the lease term the vehicle reverts to the lessor, while the purchased vehicle stays with UNHCR, for further use or resale. (See Annex 3)

180. The benefit of leasing is for the private sector, where there are advantages of distributing costs over several years, and the freedom of not having to deal with older vehicles. Since UNHCR purchases without credit there is no advantage there. Further, UNHCR would be paying full comprehensive insurance costs, rather than the usual, less costly, third-party coverage.

Ex-military trucks

181. Although the terms of reference for this evaluation consciously avoided issues relating to heavy trucks and transportation of goods, the efficacy of ex-military trucks was added to the terms of reference for consideration.

182. UNHCR has been using ex-military trucks with increasing frequency for the speed with which they can be procured, the remaining life, relative to low cost, and the added ruggedness which is a benefit in extreme field situations.

183. From what was observed first hand, and learned from those entrusted with their operation and upkeep, the Mercedes Benz 1017 (6mt) trucks were, within prescribed limits, useful adjuncts, providing reliable and versatile transport, such as the moving of goods from local warehouse to camps, or the movements of refugees. Spare parts are available and this, despite their age, makes the running costs for the trucks, when employed wisely, reasonable.

184. The value of the MB 1017s comes into question, however, when they are required to move large quantities of bulky, non-food items large distances. There is evidence that they are sometimes deployed in situations where hiring local transporters, using 30mt trucks, is considerably more economical. But because UNHCR owns them, and they are under-employed for long periods of time, they are used. (Annex 4)

185. Spare parts for the ex-Netherlands DAF trucks are no longer available. Therefore the DAF fleet in Guinea has become uneconomic to maintain, and is operational primarily through widespread cannibalisation.

186. Using commercial transport is not always an option; adequate trucks may not be available, there may be bureaucratic restrictions crossing frontiers, and not all roads and bridges can accommodate large payloads. But where it is, it generally allows for more efficient use of fuel, since private transporters will find goods to truck where UNHCR is likely to go empty for one leg of the journey. And, driver costs are less.

187. In some countries UNHCR may no longer have a continued need for the quantity of the trucks they currently own. Ideally, these ex-military trucks should be harmonised within a region and, to the extent possible, deployed through a regional arrangement, reducing the need for each country to have its own fleet, when a handful would be adequate.

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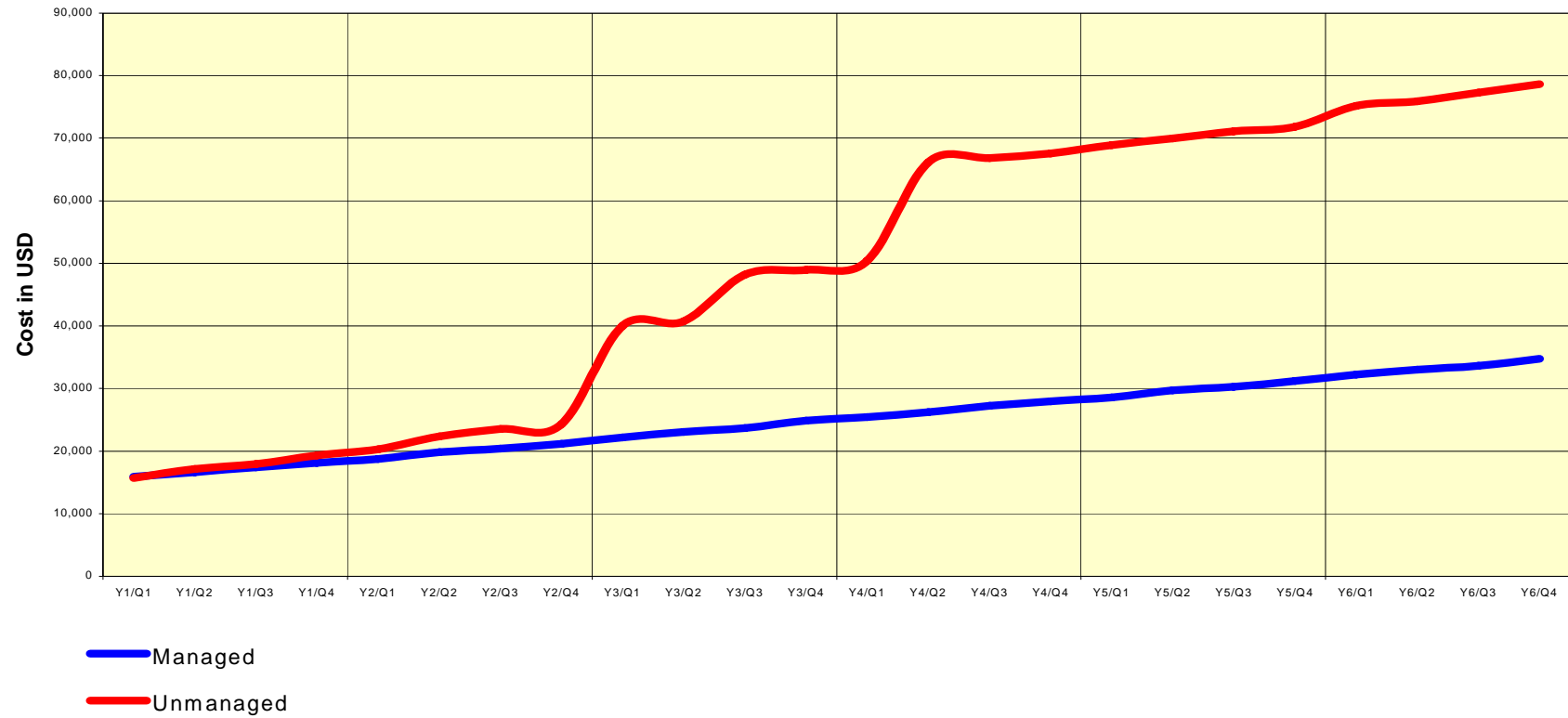
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Annexes

Annex 1.

Comparison of the cumulative cost per vehicle for managed and unmanaged systems for delivering health interventions in Africa (Riders for Health's 10 years' experience)



Annex 2.

Comparison between Toyota Hard Top 78-model and Toyota Land Cruiser 105-model
Field experiences and recommendations

	78-model Advantages/disadvantages	105-model Advantages/disadvantages
Driving Safety	High gravity point makes the vehicle less stable at higher speed. As drivers tempt to like driving at high speed, number of accidents seems to be far lower for the 78-model.	Very stable at high speed. 105-Model accelerates faster than the 78-model. The vehicle is 25 cm less weight than the 78-model, making it easier to manoeuvre in cities.
Tires	Higher life span as the 78-model is slower than the 105-model (lower acceleration, lower max. speed). Tires are more frequently available on the local marked. Tires are cheaper for the 78-model.	Price of tires higher than for the 78-model and is more difficult to find on the local marked. Life span of the tires lower than for the 78-model.
Suspension	The suspension system of 78-model is less complicated than the 105-model in the rear (leaf springs). The suspension compensates to a far lower degree for bumps and holes.	The 105 model is more stable and less affected by bad road conditions. The life span of the jump absorbers is less than for the 78-model.
Exterior	Spare parts cheaper and more frequently found on the local marked. Small scale repair cheaper than for the 105 model.	Spare parts such as light-cover, mirrors are far more expensive than for the 78-model.
Interior	Simple design. Interior easier to maintain and repair cost estimated to be lower.	More comfortable.
Ballistic blanket	Easier to install in the 78-model as the interior design is more simple. GTZ estimates to be able to fit 3 blankets per day for this model.	Complicated to install. GTZ estimates to be able to fit 1 blanket per day for this model. After installation it happens that it is impossible to make the panels fit again.
Engine	Engine is in principle the same on the 78 and 105 models. The 105 model has a slightly larger oil-sump (12 litres for the 78-model and 10,5 litres for the 105 model).	Oil change slightly cheaper for the 105 model.

Maintenance	There is insignificant difference in the price of spare parts for the two models. The 78 design makes it easier to maintain the vehicle in the field.	The 105 model uses one more fuel filter than the 78 model, making the general maintenance slightly more expensive.
Fuel	Fuel consumption seems to lower for the 78 model.	The 105 model tends to consume more fuel than the 78 model. It is most likely because the vehicle can accelerate and drive faster.

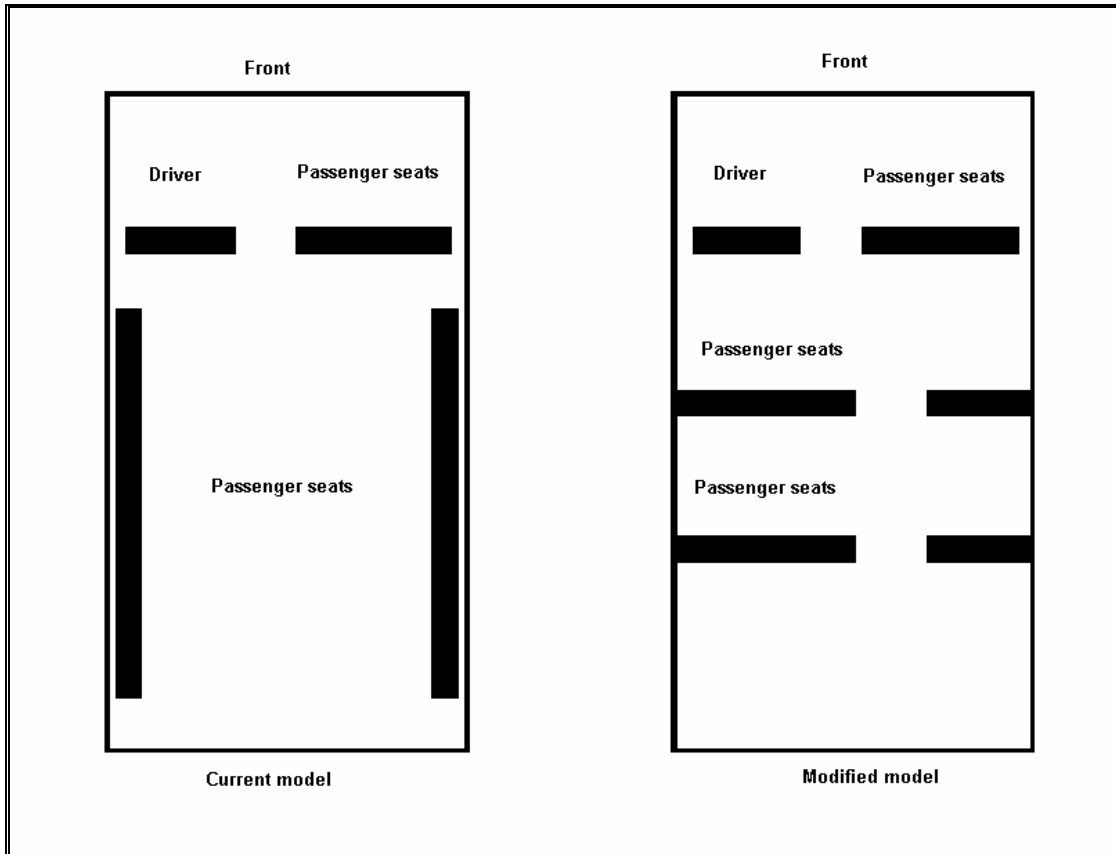
The Toyota Land Cruiser 105 model is superior in terms of security. It is a faster vehicle - more stable at higher speed and less affected by road conditions. The vehicle is more comfortable to drive in. Engine sounds and noise is reduced to a higher degree than in the 78-model.

The vehicle should remain as first priority for field missions.

The Toyota Hard Top 78-model, is cheaper and easier to maintain and repair. It is less comfortable and the interior is kept at a minimum. The 78-model however is fully useable for urban transport and I do not see any reason why the 78-model or similar could not replace the expensive 105 model. It can carry a higher number of staff and has more space for cargo.

A few modifications however is highly recommended to improve the model:

- Seats in the back are right now fitted along side with the windows of the vehicle. It makes the transport less comfortable as people are not facing the driving direction. The manufacture should be asked to modify the location of the back seats and have the seats fitted vertical in the vehicle (ref. below drawing). Seat belts should be a standard fitting.
- The air-con system is too small to cover the rather large volume of the vehicle. As a result, windows often become obscured by condensation because of humidity. It is essential either to increase the size of the air-con fan or even better to have a ventilation system installed in the back of the vehicle.



Note: Toyota also offers the same vehicle in a nine passenger version with one back bench parallel with the driver's bench, with two perpendicular benches over the rear wheel well that seat two passengers each.

Kabul, 16/07/03
 Lars Sommerlund
 OIC, Supply Unit OCM Kabul

Annex 3.

Lease Proposal over 36 months/180,000km duty free with accessories

Client :- UNHCR
 Location Of Cars :- TBA
 Date :- 5-11-2004
 Ref :- Avis/UNHCR2004/LH0001b
 Physical Address Of Client:- TBA
 Contact Point:- TBA

Description		Unit Price
NEW TOYOTA L/CRUISER STATION WAGON HZJ78R-RJMRS 4164 cc 4wd 13 Seater HardTop	USD	32,615
As per attached Specification		
Registration & Licence	USD	343
<u>Optional Accessories</u>		
Non Applicable		
Total For Units and Accessories	USD	32,615
Total Vehicle Price (Duty Free)	USD	32,958

Lease Financial Breakdown

Available options *		Per month	Over 36 months
Capital Rental	USD	1,015	36,540
Monthly Maintenance Charge	USD	490	15,039
Insurance	USD	290	10,440
Management fees	USD	70	2,520
Geotab			
Total Monthly Maintenance Charge (all options)	USD	1,865	

Annex 4

Suivi expédition des NFI de Conakry à Nzerekore par transporteur privé Soguit Wakkilare à compter du 23/11/2004

Commodity	Quantité	Nbre colis	Présentation colis	Poids/colis	Poids Total (kg)	Expéditions des colis				Stock disponible	
						24/11	25/11	30/11	01/12	Nbre colis	Poids (kg)
Jerrycan	192	192	Caisse de 100 pièces	24	4,608.00			126	66	-	-
Plastic Sheeting	17,040	3,408	balle de 5 pièces	21	71,568.00	2354	550		93	411.00	8,631.00
Plastic Rolls	1,575	1,575	rouleau	40	63,000.00		1103			472.00	18,880.00
Sleeping mats	1,557	1,557	balle de 25 pièces	20	31,140.00				841	716.00	14,320.00
Blankets	9,000	360	balle de 25 pièces	50	18,000.00			114	99	147.00	7,350.00
Soap	5,573	5,573	carton de 100 pièces	25	139,325.00			3160	2408	5.00	125.00
Kitchen sets	2,176	2,176	carton d'un kit	14	30,464.00	1076		215		885.00	12,390.00
Mosquito nets	19,996	400	Crt de 50 pieces	18	7,336.00					400.00	7,336.00
		15,241			365,441.00					3,036.00	69,032.00
					Coût/Tonne (FGUI)						125,500.00
					Coût Tonne (FGUI)						45,862,845.50
					\$ US						17,985.43

NB:

Le Coût total du carburant seul serait de **1,799,200 x 73 = 131,341,600 FGUI**, soit: **51,506.51 \$US**

Si nous y ajoutons les frais de mission des chauffeurs et leurs assistants, de lubrifiants, d'amortissement.

Si nous y ajoutons les frais de mission des chauffeurs et leurs assistants, de lubrifiants, d'amortissement, etc...

Conakry, le 07/12/2004

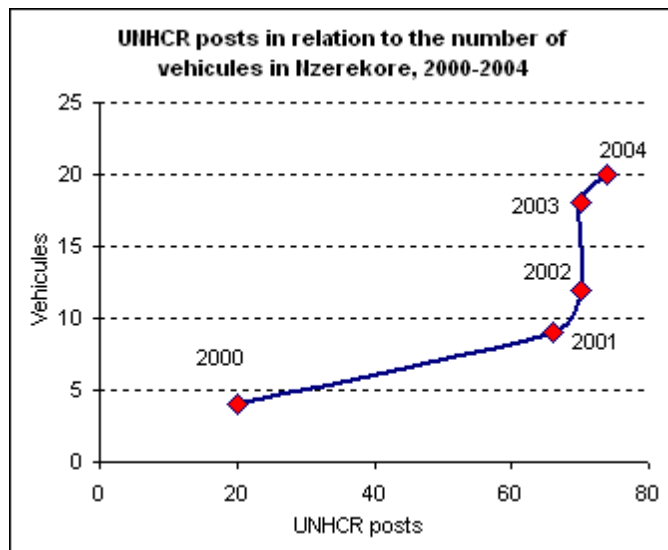
Masumbuko

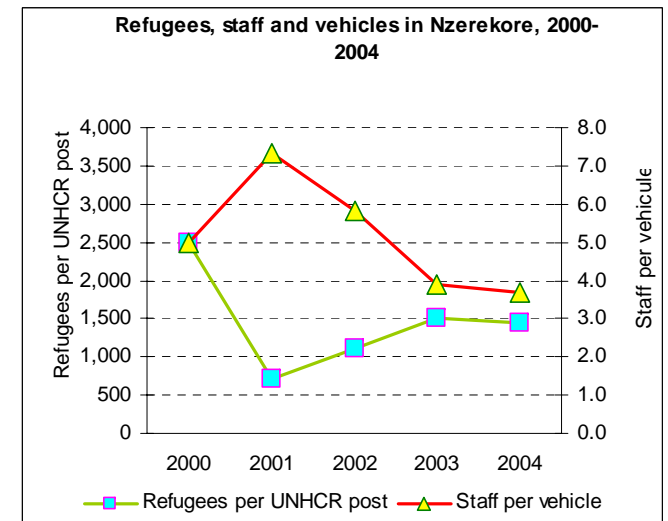
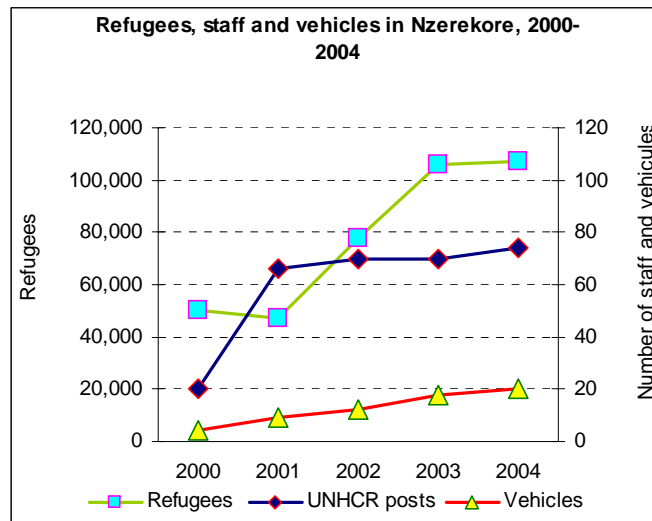
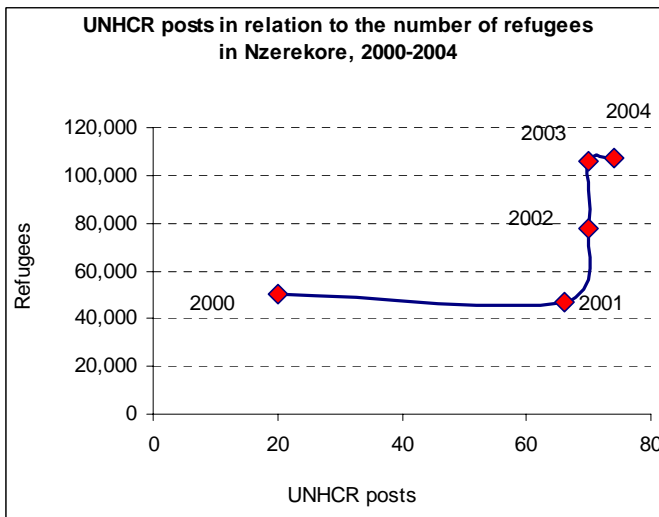
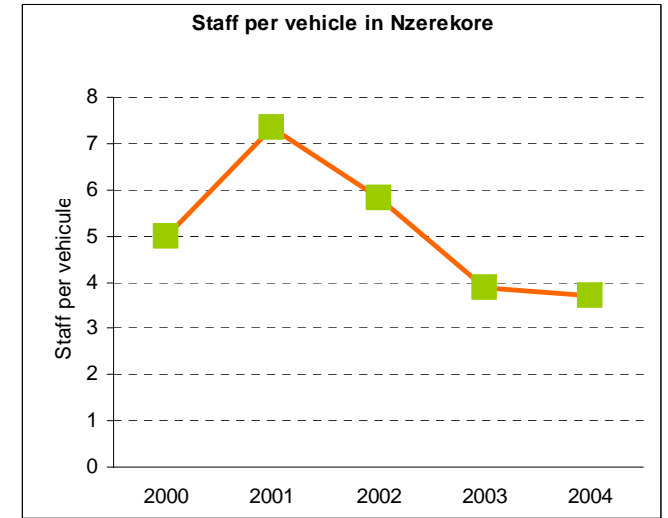
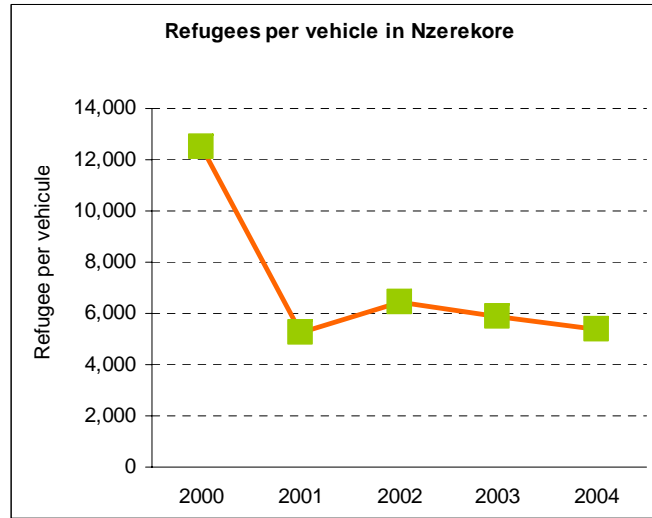
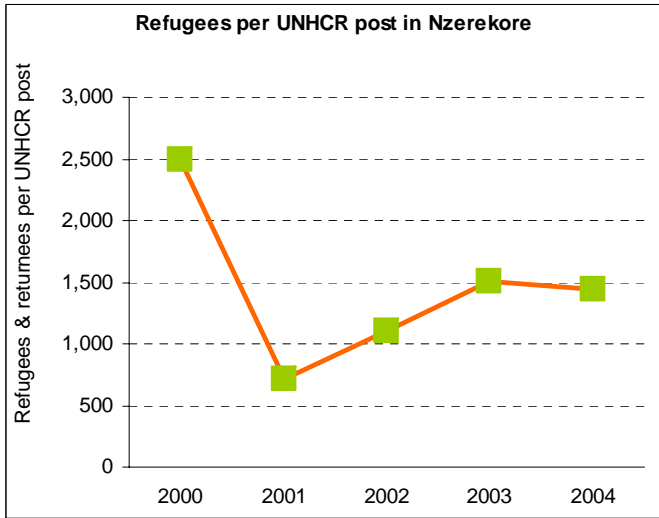
Tshitavu, Logistics Officer

Annex 5. Analysis of UNHCR office fleets, relative to operational staff and caseload does not provide an accurate view of the needs. In all of the below examples the majority of the vehicles are past their prime operational capacity.

Refugee population, vehicles, and UNHCR posts in Nzerekore, 2000-2004

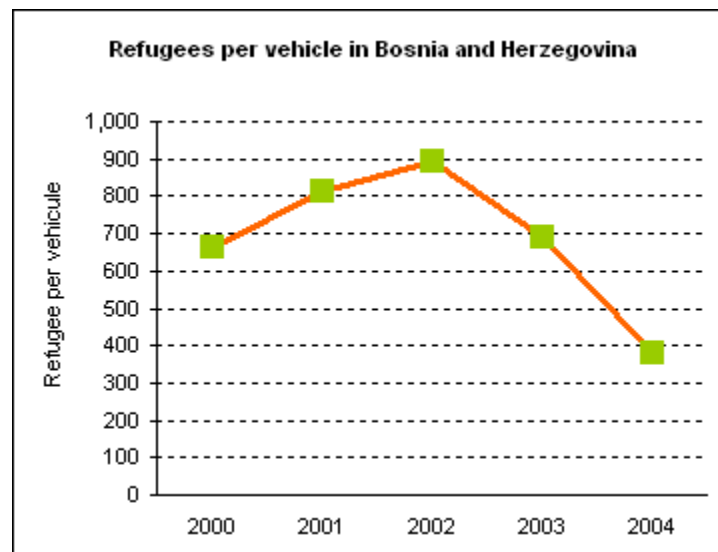
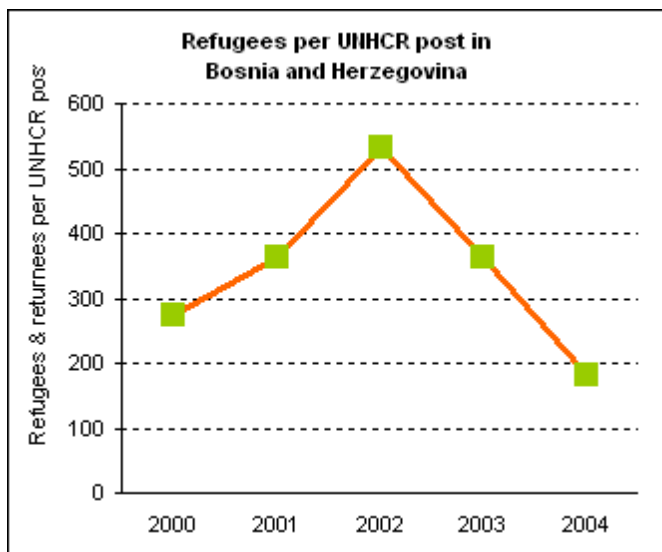
End-year	Refugees	UNHCR posts	Vehicles	Refugees per UNHCR post	Refugees per vehicle	Staff per vehicle
2000	50,000	20	4	2,500	12,500	5.0
2001	47,100	66	9	714	5,233	7.3
2002	77,500	70	12	1,107	6,458	5.8
2003	105,800	70	18	1,511	5,878	3.9
2004	107,000	74	20	1,446	5,350	3.7

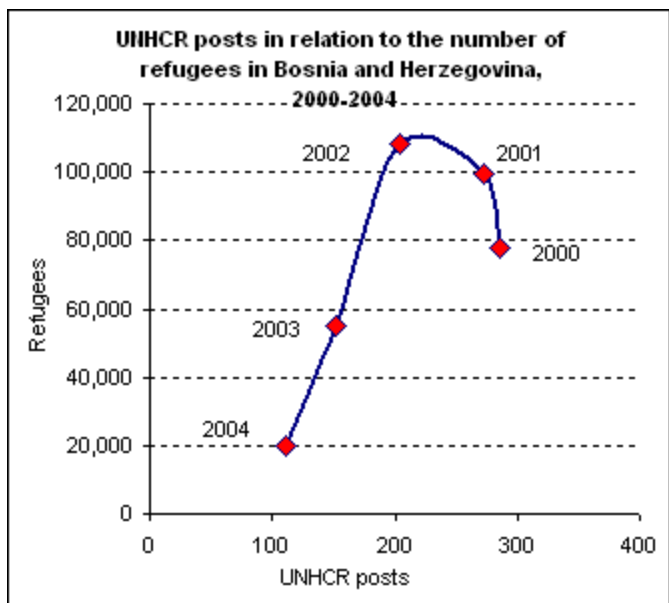




Refugee population, vehicles, and UNHCR posts in Bosnia and Herzegovina, 2000-2004

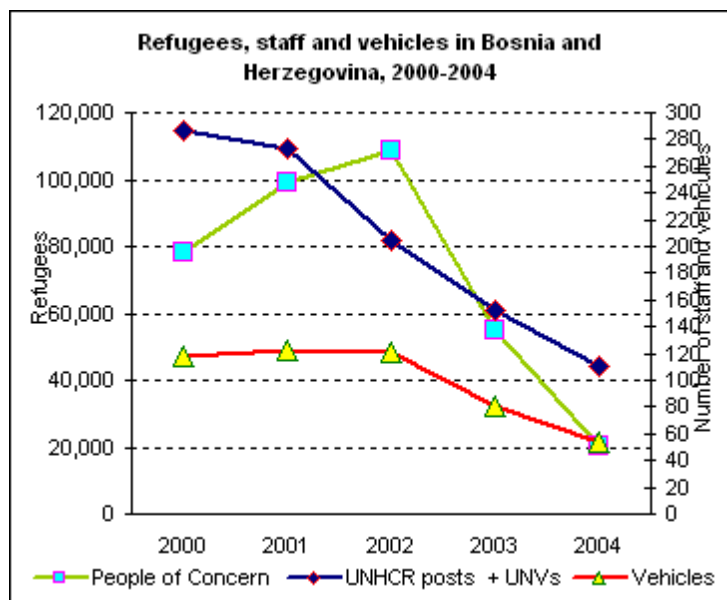
End-year	People of Concern	UNHCR posts + UNVs	Vehicles	Refugees per UNHCR post incl. UNVs	Refugees per vehicle	Staff per vehicle
2000	78,034	286	118	273	661	2.4
2001	99,251	273	122	364	814	2.2
2002	108,366	204	121	531	896	1.7
2003	55,016	152	80	362	688	1.9
2004	20,016	111	53	180	378	2.1





Year	DPs	Refugees	Asylum Seekers	Total People of Concern
2000	59,347	18,607	80	78,034
2001	80,172	18,693	386	99,251
2002	70,775	37,134	457	108,366
2003	40,303	14,012	701	55,016
*2004	17,262	2,299	455	20,016
Total:	267,859	90,745	2,079	360,683

* Data for 2004 contain reported figures for 11 months only



Administrative vehicles

Year	Banja Luka	Mostar	Sarajevo	Tuzla	Total BiH
2000	24	21	50	23	118
2001	26	23	47	26	122
2002	27	23	49	22	121
2003	18	16	28	18	80
2004	7	8	28	10	53

Refugee population, vehicles, and UNHCR posts in Addis Ababa, 2000-2004

End-year	Refugees	UNHCR posts	Vehicles	Refugees per UNHCR post	Refugees per vehicle	Staff per vehicle
2000	200,252	198	70	1,011	2,861	2.8
2001	152,554	207	62	737	2,461	3.3
2002	132,943	127	56	1,047	2,374	2.3
2003	130,232	117	65	1,113	2,004	1.8
2004	112,095	97	75	1,156	1,495	1.3

