

TRANSPORT PAPERS

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Transport against HIV/AIDS: Synthesis of Experience and Best Practice Guidelines



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Transport against HIV/AIDS: Synthesis of Experience and Best Practice Guidelines



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Washington, D.C.



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1818 H Street NW
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ACKNOWLEDGEMENTS

The *Synthesis of Experience and Best Practice Guidelines* report was funded in part with financial support from the 'Transport and HIV/AIDS Incentive Trust Fund' set up by the Global AIDS Program (GHAP) using UNAIDS Unified Budget and Workplan (UBW) funds. The Trust Fund, started in 2007, aims to fund activities that enable the transport sector to operationalize HIV mitigation in its operations while disseminating and stimulating good practices in Bank-funded projects.

The report was produced as part of the work program of the Transport and Social Responsibility Thematic Group, which seeks to strengthen understanding and promote guidance on social and environmental issues in the transport sector. The report was managed and primarily authored by Julie Babinard, Environmental and Social Development Specialist in the Transport Anchor Unit (ETWTR), with key contributions to the original draft by Sachiko Gause, former Consultant for the Thematic Group through the support of a Japanese Consultant Trust Fund (JCTF) grant.

The report greatly benefited from the invaluable comments received from peer reviewers: David Wilson, Lead Monitoring & Evaluation Specialist (HDNGA), Mariam Claeson, AIDS Coordinator, South Asia Region (SASHD), and Siele Silue, Senior Transport Specialist (AFTTR). Also acknowledged are the very helpful comments and inputs received from Elizabeth Ninan, Young Professional (AFTHV) and Chris Bennett, Senior Transport Specialist (ECSSD).

A special note of recognition is attributed to the regional HIV & transport focal points, whose enthusiasm and dedication to mitigating the impact of AIDS in transport, and whose contribution is indirectly acknowledged through the sharing of the regional Bank experience discussed in the report. The regional focal points are Jocelyne do Sacramento (AFTTR); Chris Bennett (ECSSD); Steve Brushett (LCSTR); Fei Deng (EASTE); and Jean-Noel Guillosoy (SASDT).

The support and contribution of the following individuals to the agenda and regional experience reflected in the report is also recognized: John Hine (ETWTR); Maria Margarita Nunez (EASTE); Nicolas Peltier-Thiberge (LCSTR); Comfort Onyeje Olatunji (SASDO); Emily Dubin (EASTE); and Mary Beth Levin (ETWTR). Special thanks are also extended to members of the World Bank's Global AIDS Program for their continued support, in particular: Debrework Zewdie; Antony Thompson; Janet Leno; Jonathan Brown; Elizabeth Mziray; and Francis Brian Pascual.

Finally, colleagues from partner organizations and institutions that provide support and contributed to the HIV mitigating effort work and experience shared in the report are thanked: International Transport Workers' Federation (ITF) and Dr. Syed Asif Altaf; International Labour Organization (ILO); Joint United Nations Programme on HIV/AIDS (UNAIDS); Family Health International (FHI); World Health Organization (WHO); and Partners of the Joint Initiative to fight AIDS in the Infrastructure Sectors: African Development Bank (AfDB); Asian Development Bank (ADB); UK Department for International Development (DFID), in particular, Mr. Peter Roberts; Japan Bank for International Cooperation (JBIC); and KfW Entwicklungsbank (German Development Bank).

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome or acquired immunodeficiency syndrome
AIDSCAP	AIDS Control and Prevention Project
AMREF	African Medical and Research Foundation
ASEAN	Association of Southeast Asian Nations
AusAID	Australian Agency for International Development
BCC	Behavior Change Communication
BSS	Behavioral Surveillance Survey
CSM	Condom Social Marketing
CSW	Commercial sex workers
DFID	UK Department for International Development
DPW	Department of Public Works
FHI	Family Health International
FIDIC	International Federation of Consulting Engineers
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HIV	Human immunodeficiency virus
ICSW	International Committee on Seafarers Welfare
IDU	Injection drug users
IEC	Information Communication and Education Materials
ILO	International Labour Organization
IOM	International Organization for Migration
IRU	International Road Union

ITF	International Transport Workers' Federation
JBIC	Japan Bank for International Cooperation
M&E	Monitoring and evaluation
MOT	Ministry of Transport
MPWT	Ministry of Public Works and Transport
MSM	Men who have sex with men
NGO	Non-Governmental Organization
PLWHA	People living with HIV/AIDS
PSI	Population Services International
STI	Sexually transmitted infection
STD	Sexually transmitted disease
TTL	Task team leader
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing
WHO	World Health Organization

All dollar amounts are U.S. dollars unless otherwise indicated.
 Billion means 1,000 million.
 Fiscal year is July 1 – June 30.

ABSTRACT

The transport sector is especially vulnerable to HIV/AIDS. Transport workers including long distance truck drivers, seafarers, airline crews and infrastructure construction workers spend long periods of time away from home, often endure harsh working conditions, and may engage in unsafe behavior that can lead to infection. Their mobility makes it difficult to access health information and treatment, or to maintain drug regimen. Transport hubs and construction sites are often considered hot spots due to the influx and interaction that take place among the mobile workers. Furthermore, the sector works as a vector for HIV spread as the opening of new roads connects low and high prevalence areas.

The World Bank transport group has been proactively mainstreaming HIV response by assisting client governments to design and implement sector-level interventions. Programs are most developed in the highest prevalence areas, initially in Sub-Saharan Africa and now also in Asia. Support to the sector includes organizing training events to increase staff awareness and knowledge, providing access to research materials, and securing funds to develop or scale up intervention programs. To institutionalize the response, explicit provisions for HIV prevention have been embedded in the standard bidding document. The group also collaborates with local workers organizations with the help of International Transport Workers Federation and the International Labor Organization.

Some lessons learned are (i) strategies must be crafted to meet the specific needs of the country in accordance with the local culture and unique epidemic situations; (ii) coordination with the health sector and the national AIDS authority is necessary for effective program design; and (iii) involving stakeholders from local communities is key to program success.

EXECUTIVE SUMMARY

This paper aims to provide guidance to World Bank transport and health staff on entry points for mitigating HIV's impact on the transport sector while providing resources and recommendations for designing and implementing interventions. The paper also reviews interventions and approaches undertaken by the World Bank's transport group, drawing attention to the role and resources of partner agencies, trade unions and key stakeholders.

The spread of HIV through the transport sector

The transport sector is especially vulnerable to HIV/AIDS due to the nature and environment of its workplace and economic activities. Transport workers and staff who work long hours and away from home and family—such as long distance truck drivers, seafarers, international air transport employees, and construction workers—are often at risk of engaging in risky behavior that can lead to HIV infection.

HIV incidence among transport workers and staff has primarily been recorded in infrastructure construction projects and in the trucking industry and corridor projects. However, activities of the other transport sub-sectors also play a role in HIV transmission, although these aspects have not been systematically surveyed. Monitoring and surveillance studies of truck drivers' behavior and knowledge about HIV showed that drivers tend to have poor AIDS awareness and misconceptions about condom use and HIV transmission modes despite having moderate perception of being at risk of contracting HIV.

The limited evidence on the direct impact of HIV on transport's productivity shows that the disease can significantly compromise the effectiveness and reliability of the sector, with the capacity to further strain health systems and national economies.

High risk behavior among transport sector workers and vulnerable groups

Transport users, mobile populations and local populations in the proximity of roads and transport construction sites are also vulnerable to HIV infection. Four groups in particular; commercial sex workers, female partners of men at risk, men who have sex with men, and alcohol & drug users have been identified as vulnerable to HIV transmission through the transport sector because they can engage in risky behavior and unprotected sex.

Transport workers have been identified as a vulnerable group susceptible of engaging in risky behavior with commercial sex workers that can lead to HIV transmission. Truck drivers for example can engage in unsafe sex practices with sex workers in transit stations while waiting for documentation processing to cross country borders. Also, women can get infected by their husbands who may work as truckers or workers in the construction industry. Women who live close to transport hubs, truck stands and road corridors are also likely to be at higher risk of HIV infection because they can expect to be financially compensated for engaging in unsafe sex. There is also increased evidence that men who have unprotected sex with men are a factor of HIV transmission in the transport sector. Recent studies suggest that unprotected sex between men is probably a more important factor in the epidemics of Sub-Saharan Africa and Asia than is commonly thought. Finally, the use of alcohol or drugs can add substantially to the risk of engaging in casual unprotected sexual relations and is a contributing behavioral risk factor to the spread of the HIV/AIDS epidemic.

The policy environment for mainstreaming HIV in transport

There are many partners and institutions involved globally in the fight against HIV and a response by the transport sector must take into consideration the multi-sector effort already underway. Transport projects that seek to mitigate the spread of HIV must align their interventions to fit within the global AIDS policy environment as well as existing national HIV responses. The sector interventions must also be linked to the various local health services delivery mechanisms, including local implementation units such as NGOs that are most effective for providing HIV services. Likewise, a number of ministries of works and transport have established their own HIV/AIDS plans and workplace policies, which can serve as good practice examples for the sector to address the threat posed by the epidemic. Annex 3 provides a review of countries' multi-sector strategies and the inclusion of transport sector activities within them.

An important ingredient for success will be the working relationship that must be established between transport staff, health staff and local partners. The sector should also rely on existing best practice and supporting tools created by partners such as the International Labor Organization and the International Transport Workers Federation for implementing workplace HIV strategies and for influencing behavior change among transport workers.

Assessing HIV transmission risks in a transport project

Choosing whether an HIV intervention in a transport project is warranted should depend on a risk assessment of the various factors relevant for mitigating risks of HIV transmission within a project context such as a country's epidemic level, the specific HIV risks within a particular type of transport project as well as the attitudes, beliefs and practices of communities at risk, particularly the sexual and drug-taking behaviors that can contribute to the spread of HIV. A mitigation component should be required in a transport project when a country's epidemic is generalized and should mobilize the general population as well as the most-at-risk groups. For countries with concentrated and low epidemic levels, the type of intervention should depend on country and project context and most importantly on the sub-population groups identified through the review of existing epidemiological survey data.

Once the risk level is assessed, a mitigation intervention should be designed to meet a specific transport project type: (i) for construction projects, the World Bank standard bidding documents include clauses that require contractors to implement awareness-raising and other prevention measures among the workforce; (ii) for corridor projects, risks of transmission should be evaluated based on the volume of passenger and freight activities in relation to corridor length, existing HIV prevention activities and epidemic levels of a country; and (iii) for transport projects that seek to improve the efficiency of specific sub-sectors—city port and waterborne or railways or air transport projects—HIV measures should be concerned with high mobility patterns and hot spots with active sexual networks and risky behavior. Interventions in these projects should seek to establish workplace policies and to strengthen existing local government programs.

Guidelines and approaches for mitigating HIV in transport operations

HIV interventions in the transport sector should focus on promoting safe sex behavior. This is applicable to all transport sub-sectors and hubs (airports, ports, construction sites) in high risk zones of a project area such as construction sites or could-be 'hot spots' in cross-border areas, markets, hotels, bars and brothels near transport projects. Interventions in the sector should include the provision of training on HIV/AIDS risks that encourage behavior change, particularly condom use (the common preventive strategies for this aspects include behavioral communications campaign; peer counseling; and condom distribution); the treatment of sexually transmitted infections (linking a project intervention to local health and STI treatment services) and the referral of transport workers and vulnerable groups to Voluntary Counseling and Treatment (VCT) services.

Behavior change among targeted groups and communities is one of the most critical components of successful interventions, particularly among those at highest risk of contracting and spreading the disease and in areas with lower HIV prevalence. It is often the same groups of HIV/AIDS vulnerable

people along construction sites and transport hubs and corridors who offer opportunities for preventive action and dissemination of HIV/AIDS awareness messages. There is very little experience on programs addressing the needs of seafarers, railway workers and air transport workers.

Workplace strategies can be established to improve the working conditions of transport workers while minimizing their exposure to the disease and minimizing risk behavior in key transport hubs. For corridor and port city development projects as well as transport hubs, where transport delays can occur, HIV interventions should also focus on speeding the time it takes to cross border posts by increasing capacity, harmonizing custom duties, and streamlining paperwork. This can be done through inter-country coordination mechanisms and partnerships among governments and customs agencies that facilitate the implementation of transport policies for trade facilitation.

Good practice examples from international and local partners

Stakeholder and partners' experience shows that there are many opportunities for preventive action and dissemination of HIV/AIDS awareness messages in transport. Associations of construction contractors, transport operators and their employees are key stakeholders with whom the Bank and other organizations implementing HIV interventions for transport workers can cooperate in all countries. Likewise, interventions from NGOs and other partners have shown that reaching vulnerable groups and communities around transport routes can reduce some of the risky behavior leading to HIV infection in the sector.

Examples of good practice HIV interventions in the sector include road-side clinics and wellness centers for truckers, health passports and targeted communication materials. Good practice corridor projects have provided condoms, STI treatment and HIV education to transport drivers and passengers along corridors. One particular project, the HIV/AIDS Abidjan-Lagos Transport Corridor Project (Project ID P074850, approved November 13, 2003) also focused on reducing waiting time for long distance transport workers at border crossings, a key risk factor for HIV transmission. Other effective HIV interventions have included information campaigns targeted at large moving population groups in the railway sector and in specific programs and training tools developed for seafarers and the maritime industry. Counseling and treatment services offered to transport workers have also benefited sex workers and other sex partners of transport workers through STI awareness and education campaigns supplemented with condom distribution.

The World Bank experience

The transport sector has been part of the Bank multi-sector AIDS effort since the early 1990s. The sector first responded to the challenges brought by the epidemic in the Africa region, where prevalence is most severe than anywhere else in the world. This was done through the Multi-Country HIV/AIDS Program for Africa (MAP) and with the help of the multisectoral AIDS Campaign Team, ACTAfrica, which provided operational support in all sectors. Since 2000, the Africa Region Transport Team (AFTTR) has worked to include HIV measures in its road operations in order to address the impact of increased mobility and to discourage risky behaviors of passengers and operators across borders. The Africa team was also the first one to include HIV/AIDS mitigation provisions within standard clauses for works contracts.

In other Bank regions, transport is accelerating or strengthening its AIDS mainstreaming operations and analytical work. In the Middle East and North Africa Region, the Djibouti's national HIV response initiated in 2003 included health education, counseling, and prevention activities through eleven ministries and community-based associations, targeting groups most at-risk and vulnerable to infection such as men in uniform, youth, women, sex workers, truckers and dock workers. An information toolkit was also designed for each of the eight vulnerable groups including truckers, dock workers, and commercial sex workers. In 2005, the South Asia Vice Presidency made a commitment to include the transport sector in the regional multi-sectoral response for tackling the epidemic. The South Asia team working on mainstreaming HIV/AIDS in transport operations includes the full-time support of a coordinator and a designated counterpart from Human Development Network. Initiatives in the region have included funds and technical assistance for project preparation and interventions in country road projects, coordinating with other parts of the Bank in HIV/AIDS mitigation, and working

with the Human Development Network. In Latin America and the Caribbean and the Europe and Central Asia Regions, key studies on the knowledge, attitudes and practices of transport workers and vulnerable groups such as sex workers and women living near roads have taken place in Haiti, Argentina, the Balkans and Georgia. These survey results have shed light on some of the misinformation and lack of knowledge of transport workers while helping to formulate possible follow-up activities.

Challenges to mainstreaming HIV prevention in World Bank transport operations

Despite good progress made in mainstreaming HIV/AIDS in transport projects, several institutional and operational constraints remain. A main challenge is how to implement behavior change and communications campaign as described in the World Bank clauses. There is no enforcement mechanism in place to enforce the clauses beyond the supervision process that a Task Team Leader has to do as part of the general project supervision. This is even more of a challenge for small civil works projects as clauses are only mandatory for large projects, with budget greater than \$10 million. Also, the contractor may not have the knowledge or capacity to undertake HIV prevention activities to fulfill the clause requirements.

A related challenge is the lack of funding for HIV activities in transport. The majority of HIV activities have been funded by grants as client governments are typically not supportive of paying for such activities through loans. Permanent resources for HIV prevention would be needed from client countries' budgets to sustain the achievements made in some countries and at regional levels.

Other challenges for successfully carrying out HIV interventions in transport include the need to develop and strengthen capacity building at the project and institutional level; assessing the effectiveness of HIV interventions in transport projects through monitoring and evaluation mechanisms; and overcoming stigma and discrimination to in part foster greater HIV testing and treatment among transport workers.

Recommendations for World Bank transport staff

More than a decade of experience in tackling HIV in the transport sector helps consolidate our knowledge about what can be considered good practice in tackling HIV in the transport sector. At the country level, an HIV transport policy should be developed through stakeholder consultations and should align itself with the national HIV/AIDS Strategic Framework as well as the multi-sector response of the national HIV/AIDS commission. The transport sector should utilize the knowledge and networks already established within the national HIV response for developing and implementing effective approaches to fight the epidemic.

At the project level, vulnerability of the transport sector should be targeted through flexible interventions focused on education and behavior change, particularly the consistent use of condoms. There are various options for designing cost effective interventions based on specific country and project contexts. In particular, the level and type of interventions best suited to meet a specific country prevalence rate and risks associated with a particular type of transport project should be assessed.

Other key guiding principles for effective HIV mainstreaming in the transport sector include the necessity to address issues that can lead transport workers to engage in risky behavior, such as working excessively long hours without taking enough time to rest; poor facilities for recreation and rest; and lack of appropriate health services and other benefits. The *ILO Code of Practice on HIV/AIDS and the world of work* provides useful guidelines for an integrated HIV workplace response targeted at workers and their families. Finally, involving people living with HIV/AIDS, local communities, traditional and religious leaders in project design and implementation could help reduce fear and stigma surrounding the diseases. It would also provide additional support for convincing transport workers and vulnerable groups about the importance of condom use prevent the spread of HIV.

INTRODUCTION: RATIONALE FOR INTERVENTIONS IN THE TRANSPORT SECTOR

The recognition of HIV/AIDS as priority in the World Bank's overall development agenda has spurred efforts to mainstream HIV/AIDS mitigation activities in all economic sectors. HIV/AIDS is no longer simply a medical issue but one of the greatest development challenges, with the capacity to strain health systems as well as national economies.

Transport employees, and therefore the enterprises for which they work, are at high risk from contracting HIV. Several studies have tracked the spread of HIV along major truck routes, highlighting the role of truck drivers in introducing HIV into new areas. Border towns, where transient populations such as truck drivers encounter local populations tend to have high rates of HIV prevalence.

The presence of transportation hubs and the existence of large groups of vulnerable persons (for example sex workers, unemployed youth, migrant labor, drug users) in these hubs also pose significant risks of increased HIV transmission. In this context, the transport sector links together many disparate communities while having the opportunity to play a role in mitigating the spread of the disease.

This paper aims to provide guidance to World Bank transport and health staff on entry points for mitigating HIV's impact in the transport sector while providing various resources for designing and implementing interventions. The paper also reviews interventions and approaches undertaken by the World Bank's transport group, drawing attention to the role and resources of partner agencies, trade unions and key stakeholders.

1. HIV/AIDS VULNERABILITY IN THE TRANSPORT SECTOR

Vulnerability to HIV/AIDS in the transport sector takes place through several dimensions that are mainly intrinsic to the sector’s activities and difficult working conditions. Transport underpins the economy, enabling the movement of goods, services and people as efficiently as possible. Strong evidence links transport routes to the spread of HIV through the opening of new traffic routes and improved access and mobility, which can bring the epidemic from high prevalence areas such as cities and towns to low prevalence areas in rural regions.

The development, functioning and maintenance of transport systems also require the mobilization and interaction of workers with communities around infrastructure construction sites and along transport corridors, which can lead to the spread of HIV. Construction sites are often located in remote, under-developed areas surrounded by impoverished local communities. Local community dwellers are keen to interact with construction workers who have disposable income and are in a position to purchase sex (IOM 2005).

1.1. Impact on sector employees

Across transport sub-sectors, the difficult working conditions of transport workers are likely to increase risk taking behavior that can lead to the transmission of HIV/AIDS. Among the factors that can encourage risky behavior by transport workers and potential increase of HIV infection in the sector include lack of safe, clean and affordable accommodation for drivers; limited access to health services at border towns and the fact that condoms are either unavailable or too expensive (Box 1-1).

Box 1-1. Conditions for HIV infection in the transport sector
<ul style="list-style-type: none">▪ Duration of time away from home and family▪ Boredom with increased opportunities for sex with multiple partners▪ Delays at border crossings▪ Condoms not used/ low knowledge of their efficiency▪ Lack of access to health services▪ Poor working conditions and low wages

Construction sites

Construction of transport infrastructure creates a potential risk of linking low- and high- HIV prevalence areas such as villages and cities. The building and maintaining transport infrastructure often involves sending teams of men away from their families for extended periods of time. In many cases, construction sites are located in remote, under-developed areas surrounded by impoverished local communities. As a result, construction workers, majority of whom are male, can endure a lack of privacy, a sense of loneliness, and poor living conditions that keep them separated from the socio-cultural norms that typically regulate their sexual behavior in their own communities (IOM 2005). Additionally, isolated working and living environments often create a sense of anonymity among workers, allowing for more sexual freedom.

Construction workers often have disposable income from their employment and can face the temptation of sexual relations within the communities surrounding their employment camps and in the proximity of the construction sites. Local community dwellers also often interact with construction workers who have disposable income and are in a position to purchase sex (IOM 2005). Furthermore, the temporary nature of employment on construction sites requires workers to go from one construction site to another while returning home between contracts or on leave. This further contributes to exposing their families and home communities to HIV and other STIs (IOM 2007).

Although limited, studies have shown that the spread of HIV can be linked to road construction. Such evidence has been recorded in Malawi (Ponnighaus and Oxborrow 1990). In China, it was reported

that when the highway linking Kunming (Yunnan) to Nanning (Guangxi) was completed, overall documented HIV cases for Guangxi jumped from 10 to 525 within this short three-year period (Lee-Nah Hsu 2001).

Road transport

Along with construction sites, the road sector is generally regarded as the riskiest sector for HIV infection in the transport industry, as global evidence shows that truck drivers and other long distance transport operators are extremely vulnerable to HIV infection. Numerous studies have tracked the spread of HIV along major truck routes, highlighting the role of truck drivers in introducing HIV into new areas. In Sub-Saharan Africa, long-distance truck drivers were identified as early as the 1980s as having relatively high HIV prevalence, with rates of HIV infection among truck drivers of 25 to 32 percent among truck drivers in Kenya and Uganda (Mbugua et al. 1995; Bwayo et al. 1994). In areas of Asia, truck drivers have also been identified as a population at risk. Drivers in India, Bangladesh, Thailand and other countries have reported large numbers of non-regular, usually commercial, partners (Marck 1999). In addition to reported large behaviors, STI rates also tend to be high among truckers (Lacerda et al 1997; Gibney et al 2001).

Table 1-1 shows a comparison of HIV prevalence rates between truck drivers and the general population from selected countries. As the data collection methods and years differ in these surveys, caution must be used when drawing any conclusion from this table. However, this serves as a general indicator that the trucking industry workers face a greater risk of infection than the general population.

Vulnerability among long-distance road drivers is partly explained by the drivers' long absence from home, the mobile nature of their work, the lack of affordable rest facilities at truck stops, and lack of access to condoms and correct HIV information. Table 1-2 shows the estimated number of time spent by truckers away from home in seven countries.

Table 1-1. HIV prevalence rates in the general population and among truck drivers		
Country	General population prevalence rate (%) (UNAIDS 2007)	Transport sector prevalence rate (%) reported in 2008 UNGASS Country Reports
Benin	1.8	5
Cameroon	5.4	16.3
Congo, Dem. Rep. of	3.2	3.3
Eritrea	2.4	7
Ghana	2.3	4
Guinea	1.5	7.3
Malawi	14.1	14.7
Mali	1.7	2.5
Niger	1.1	1.7
Rwanda	3.1	16.1
Nepal	0.5	1
Malaysia	0.5	3.7
Croatia	<0.1	0.2-0.6

Source: UNGASS reports 2008

Table 1-2. Mobility of truckers and absence from home	
Country	Time away from home
Brazil	55% average more than one week away per trip
India	Average of 10 months away between home visits
Kenya	Average of two weeks away between home visits
Nigeria	Average 5 weeks away between visits home
South Africa	14-20 days away from home per month
Uganda	70% spent less than one week at home during past four months
Vietnam	57% usually away from one to two weeks
Zimbabwe	Average of five days away between home visits

Source: Synergy project.

Drivers tend to develop social networks that provide them with the necessary accommodation and eating arrangements along highway routes and transport corridors that they otherwise cannot afford with their low wages. In many localities, there is no night-time accommodation except with a sex worker (Wilson et al. 1994). In Nigeria, a study revealed that the truckers had an average of 6.3 permanent sex partners, roughly equal to the number of stops they made along the journey (Marck 1999). Conversely, certain places have become 'hot spots' because they are favorable places to rest, refuel, eat, stay overnight and also providing sexual entertainment. In this context, drivers provide an important source of revenue to roadside businesses such as bars and hotels, making highways and truck stops centers of new economic and social activities.

In addition, increased reliance on road transportation for both intra-regional trade and for competing in international markets as a result of trade liberalization and existing customs unions often leads to significant delays at border crossings. These delays in crossing a border post or in transit stations are a major factor in the spread of HIV/AIDS in the transport sector, particularly among truck drivers who often experience long waits at borders, harassment of immigration officials and police. Truck drivers often sleep in their trucks for fear of being robbed or hijacked, or because accommodation is expensive. Some drivers have even reported that it is cheaper to spend the night with a commercial sex worker than to pay for a night at the hotel (ILO 2006).

Railway sector

Railroads constitute a major vector of migration and can facilitate the cross-border spread of HIV among train passengers but also among populations that interact through the social networks created near train stations; ambulatory vendors, porters, food sellers, commercial sex workers, mechanics, 'men in uniform' and others. Also, as is the case with road transport employees, railway employees are especially mobile, putting train crew and workers at risk for HIV infection. Indian railways alone are the world's third largest employer, and its workforce, because of its mobility, is highly susceptible to being exposed to the virus.

Very limited research has been done on the incidence of HIV among railway workers and the factors contributing to the transmission of HIV/AIDS through railroad sector employees, passengers and the effect on the general population as a whole. One study on data from voluntary counseling and testing centers from patients from health care institutions in the railroad and non-railroad sector of North India for four years has shown that infection is transmitted in direct proportion to the movement of personnel as part of their duties (Jain, Agrawal and Das 2006).

Seafarers and maritime transport

The nature of the work and the changing working conditions make seafarers and the maritime industry highly vulnerable for HIV transmission. Seafarers spend long periods away from home while at sea and try to make up for loss of human contacts when docking at ports. The attraction and ease of

resorting to activities that can offer immediate relief such as drinking alcohol beverages and seeking sex for hire increase the risks of possible exposure to STDs as well as HIV/AIDS infections.

There have been several assessment studies of seafarer vulnerability, their HIV risk behavior and associated factors, particularly in East Asia where seafarers are one of the largest mobile population groups with a high risk of contracting HIV/AIDS. The joint seafarers initiative of UNICEF and UNAIDS estimate that up to 22 percent of seafarers in certain areas of the Mekong region of south east Asia (including Vietnam, Thailand and Cambodia) may be infected with HIV. It is estimated that seafarers make up 40 percent of the overseas Filipino workers infected with HIV (Payoyo 2007).

Another factor that influences risky behavior among seafarers is linked to the fact that the maritime industry tends to employ many foreign nationals and migrant workers. For example, in Thailand 90 percent of the employees in this industry are foreign nationals, who tend to have no social safety net.¹ They often do not have legitimate work visas and employers tend not to comply with the regulations due to large labor supply and perceived lack of enforcement. In addition, surveys of port facilities have shown that many ports have no welfare services, although these facilities are often listed in port directories. Seafarers can also suffer when shipping companies try to cut costs by flying 'flags of convenience' from countries with lower standards for registering ships. This can undermine safety standards, as well as efforts to provide good workplace HIV/AIDS policies.

Seafarers and the maritime industry can play a role in limiting the spread and effects of the epidemic. As a significant proportion of international trade is undertaken by sea, major centers of economic activity are now found in port cities around the world. Operating 24 hours a day, seven days a week, ports usually face significant congestion—despite the increased development of internal truck-only roads to provide more efficient movement of trucks. As a result, transport workers delays, combined with high population densities, the presence of transportation hubs and the existence of large groups of vulnerable persons (for example sex workers, unemployed youth, migrant labor, drug users) in economic port centers pose significant risks of increased HIV transmission in these hubs. A study conducted in Uganda in 1989 surveyed HIV prevalence among truck drivers and their assistants who transport goods from port cities to inland regions. Overall, HIV prevalence was found to be 35.2 percent in this group, compared with a 9.2 percent group of local residents (Carswell, Llyoyd and Howells, 1989). High levels of sexual risk behavior were recorded among truck drivers in two urban ports of the Southeast region of Brazil, Santos and Itajai (Ferreira et al. 2008).

Civil aviation

Airline crews are similarly at risk of contracting HIV/AIDS and the role of international travel in the spread of HIV was also highlighted early on with the case of 'Patient Zero,' a Canadian flight attendant who travelled extensively worldwide. Analysis of several of the early AIDS cases showed that infected individuals were the attendant's direct or indirect sexual contacts, also traceable to several American cities, thereby demonstrating the role of international travel in the spread of the virus (Tatem, Rogers and Hay 2006). In the United States, the disease's rapid spread between 1984 and 1990 can even be modeled accurately using air traffic flows between cities (Tatem, Rogers and Hay 2006).

According to the International Transport Workers Federation, the airline industry attracted attention early during the HIV pandemic because the disease was concentrated among homosexual men, a large number of whom have historically been employed in this industry. This is supported by the fact that many private company responses in the late 1980's and 1990's were from the airline industry (ITF 2003). Airline crews reportedly continue to take risks despite the early intervention and attention. In Zimbabwe, findings from a 2002 ILO country assessment revealed that more than 25 percent of male air transport workers had multiple sexual partners in the preceding year (ILO, 2005). Another study in Europe found that AIDS was the most frequent single cause of death in male cabin crews (Zeeb, et al, 2003).

Airline crew members living with HIV/AIDS may face difficulty in receiving vaccinations required to travel to certain countries, because people living with HIV/AIDS (PLWHA) are generally advised against receiving them due to their compromised immune systems. In response to this and other

¹ Profiling the Maritime Industry in Port of Ranong, Thailand, p.36.

problems related to HIV/AIDS, airline companies tend to prescreen their employees for HIV and other STIs, which goes against non-discrimination (4.2) and confidentiality (4.7) principles stipulated by ILO *Code of Practice on HIV/AIDS and the world of work* (ILO 2001).

1.2. Knowledge, condom use and perception of risk

As is often the case with other vulnerable groups, transport workers tend to have low HIV/AIDS knowledge and risk perception and are generally ignorant of the consequences of casual sexual relationships. Lack of knowledge about HIV can shape the perception of workers' risks of contracting HIV as well as their sexual behavior. Studies have found that transport workers can engage in risky behavior even when they have a general knowledge about HIV/AIDS (Mupemba 1999; Marck 1999). An important reason for this behavior is that transport workers face many risks on daily basis, making the danger of HIV/AIDS more remote and therefore seemingly less important. In a 2001 survey of Mozambican truckers, three quarters of the respondents did not perceive themselves to be at risk of HIV/AIDS infection (Mohamed and Pacca 2002).

The lack of access to health care services and information on STIs and HIV/AIDS also appears to be a contributing factor to the risky behavior of transport workers. A qualitative study conducted in Walvis Bay suggests that foreign seamen who come from low-prevalence countries were particularly at risk due to their low level of exposure to HIV education. An assessment in Thailand also revealed that there was a widespread distrust of public health clinics among seafarers, and some even reported rumors of clinics where seafarers had been killed once discovered to be HIV-positive.

Low perceptions of risk can also result in low or incorrect condom use. Condom use remains one of the key methods of prevention against HIV but consistent condom use tends to be low among truck drivers, particularly with non-regular partners and sex workers (Table 1-3). Truckers' knowledge about condoms tends to be high but their use of condoms is not consistent. Truck drivers report that they do not use condoms because they have only one sexual partner such as a 'road wife' or a 'rail wife' with whom they stay when traveling certain routes; they trust the individual they have sex with; they do not find condoms pleasurable; and they do not want to make their spouses suspicious by starting to use a condom with them when they return home (Morris et al. 2000).

Studies published to date have shown that transport workers have some knowledge of HIV/AIDS but this knowledge is often not consistent or comprehensive and often does not translate into safe practices. Table 1-4 provides some country examples of reported misconceptions about the disease transmission and prevention methods, as well as discrimination which have been observed among transport workers. National surveys as part of the UNGASS Declaration of Commitment show high risk behavior among truck drivers, including low level of HIV transmission and prevention knowledge (Annex 3 provides the review of UNGASS country reports). Another example includes a survey of Thai seamen which reported their low level of HIV knowledge and misconceptions about STIs and HIV, as well as reluctance to use condoms despite frequently engaging in commercial and transactional sex with multiple partners.

Table 1-3. Transport workers and condom use with non-regular partners	
Ethiopia	27%, 49% and 88% of truckers, mini-bus drivers and intercity bus drivers, respectively, have not consistently used condoms with non-regular partners in the past year (Mitike G. et al. 2003)
South Africa	29% reported never using condoms with sex workers (Keulder 2006)
Vietnam	40% of the seamen in the Kien Giang province do not use condoms with commercial sex partners, and only 25% use condoms with non-regular partners (Baseline Survey Report, National Committee for Population, Family and Children 2002)
	1/4 of construction workers did not use condom at last sex with sex workers; more than half did not report condom use at last sex with occasional partner (Population Council 2003)
Haiti	Truckers had used condoms in less than half the times with regular partners, when 57% of truckers had sex with more than one regular partner and 31% had sex with two regular partners (CERA 2008)
India	16% of truckers surveyed in 2001 reported consistent condom use (Gulalia 2002)

Table 1-4. Misconceptions and discrimination among transport workers about HIV	
Ethiopia	62% of truckers had at least one misconception about HIV transmission; common misconceptions were that one could get infected by eating raw meat prepared by an infected individual, by eating uncooked egg laid by a chicken that had swallowed a used condom, and from mosquito bites (Mitike G. et al. 2003)
Vietnam	39% of the seafarers in Kien Giang province were able to identify ways of HIV prevention correctly (Baseline survey for Community Action for Preventing HIV/AIDS Project)
Haiti	23% could cite three correct modes and two wrong modes of prevention against HIV correctly (CERA 2008)
Georgia	22% of truckers surveyed thought that an HIV-positive teacher could continue teaching and only 18% would buy food from an infected vendor (World Bank 2008)

1.3. Impact on sector performance

HIV/AIDS has the potential to strain health systems but also national economies. Absenteeism, productivity declines, health-care expenditures, and recruitment and training expenses caused by HIV/AIDS all contribute to increasing costs and setbacks for the transport sector and the groups in society affected by the disease (Table 1-5).

Table 1-5 HIV/AIDS related costs and impact on sector performance		
	Increased expenses (Direct cost)	Lost productivity (Indirect cost)
Individual cost from one employee with HIV/AIDS	<ul style="list-style-type: none"> ▪ Benefits payments ▪ Medical Care ▪ Recruitment of replacement worker ▪ Training of a replacement worker 	<ul style="list-style-type: none"> ▪ Increased leave and absenteeism ▪ Reduced on-the-job productivity ▪ Supervisor's time ▪ Vacancy until replacement is hired ▪ Poorer performance due to replacement's inexperience
Organizational cost from many employees with HIV/AIDS	<ul style="list-style-type: none"> ▪ Benefits premiums ▪ Accidents due to sick or inexperienced employees ▪ Litigation over benefits, dismissals, and so on 	<ul style="list-style-type: none"> ▪ Production disruption due to missing skills, accidents, vacant positions, and so on ▪ Loss of institutional memory and experience ▪ Breakdown of workforce morale and cohesion ▪ Diversion of senior managers' time ▪ Deteriorating labor relations
Market or external cost from high HIV prevalence in society	<ul style="list-style-type: none"> ▪ Higher cost of material inputs ▪ More security needed due to breakdown in civil society ▪ Higher wages due to shortages of skilled workers 	<ul style="list-style-type: none"> ▪ Reduced demand for products or services ▪ Higher risk premium on investment ▪ Higher cost of capital ▪ Higher cost of transactions with government and labor

Source: *HIV/AIDS and the Private Sector in Africa: Impact and Responses*. Rosen, S. 2006

Governments as well as private sector companies have begun to recognize that HIV/AIDS can represent a serious burden on the economy. A 2005 survey of over 10,000 companies' perceptions and responses to HIV/AIDS in 117 countries led by the Global Health Initiative of the World Economic Forum reported that 22 percent of the respondent companies reported experiencing impacts from the virus. In Sub-Saharan Africa, 65 percent of the companies report some impact and 21 percent serious impact. At the firm level, HIV/AIDS can worsen employee morale, create greater labor-management tensions and cause a labor shortage among skilled positions. Additional costs or output loss is caused by absenteeism due to illness, time off to attend funerals and increased health and other benefits costs. In the study conducted in South Africa and Botswana, it was found that employees who died of AIDS-related causes took average of 35.4 more days of sick leave than the annual average for the workforce as a whole which was 6.3 days a year (Rosen et al. 2004). In another analysis in South

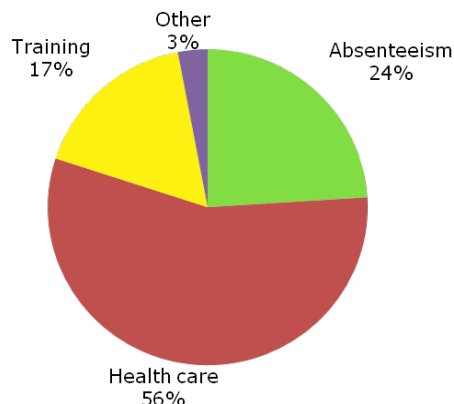
Africa, it was estimated that 40 percent of an infected employee's annual salary was to be incurred for the each of the last two years of life (Morris et al. 2000b).

The limited evidence available on the direct impact of the disease on the transport sector's productivity shows that HIV can significantly compromise the effectiveness and reliability of the sector, with potential to further affect the rest of the economy. A macroeconomic analysis based on Ukrainian data estimates that the sector output will decline by 2.24 percent by 2014 due to HIV/AIDS (International AIDS Alliance 2006). It was estimated that HIV/AIDS-related medical costs for the Tanzania-Zambia Railway Authority (TAZARA) workers increased by as much as 63 percent within a year (Figure 1-1). 11,500 workers were infected in 1996 and more than 3,400 newly infected were reported in 1997, representing a total cost of more than \$4 million to the company (Bollinger et al. 1999).

Recent analysis done by Tanzania's Ports Authority reported that an estimated 53 percent of workers' deaths from 1999 to 2002 were related to AIDS. In terms of cost, the analysis suggests an average AIDS related death cost of \$4,300 (with funeral costs to the Authority per deceased employee of \$2,300 and a hospitalization and absenteeism cost amounting to \$2,000). Costs of drugs per patient at subsidized prices average \$1,000 per year.

Fighting AIDS in transport makes economic sense. Many jobs in transport service delivery involve operation of heavy machinery that requires certificates and licenses, and thus, replacing the lost workforce may take longer and can incur significant training expenses. Transport managers are typically highly educated professional people scarce in supply, expensive to train and it takes a long to replace them. In addition, high labor turnover may also result in less experienced and less productive workforce. Finally, the increased labor and medical costs due to HIV/AIDS also affect consumers of transport services indirectly through higher prices. This, in turn, would affect the poor the most as they may no longer be able to afford transport costs for accessing health care and other basic services. The health and general well-being of transport sector employees is critical to the sector productivity and development. In addition, HIV/AIDS negatively affects productivity of the sector and undermines the poverty reduction efforts at the core of any transport development projects.

Figure 1-1. Distribution of HIV/AIDS-related costs in transport sector – Tanzania-Zambia Railway Authority



Source: Bollinger et al 1999

2. SPREAD OF HIV THROUGH TRANSPORT: HIGH RISK BEHAVIOR AND VULNERABLE GROUPS

Transport users, mobile populations and local populations in the proximity of roads and transport construction sites are also vulnerable to HIV infection. Four groups in particular have been identified as vulnerable to HIV transmission through the transport sector because they can engage in risky behavior and unprotected sex. These groups are commercial sex workers, female partners of men at risk, men who have sex with men, and alcohol and drug users.

2.1. Commercial sex workers and their clients

In many regions of the world sex workers, clients, and their partners are an important vulnerable group for HIV/STIs transmission because they usually have a great variety of unprotected sexual contacts. Some of the highest incidence of HIV has been found along transport corridors, particularly at border crossings where there is a high turnover of truck drivers, migrant workers and commercial sex workers. These areas can become 'hot spots' for sexual networks where individuals are likely to engage in risky behaviors that will result in HIV transmission. A study conducted along the trans-Africa highway from Mombasa to Kamapala estimated that 8000 female sex workers worked on the highway, and the annual number of different sexual partners per sex worker was estimated to be 129. Annual number of sexual acts per sex worker was 634, and the percentage of protected sex was 77 percent. It is estimated that 3,200-4,148 new HIV infections occur between Mombasa and Kamapala in one year, and that having a 90 percent condom use could prevent almost two thirds of these infections (Morris and Ferguson 2006).

Transport workers have been identified as a vulnerable group susceptible of engaging in risky behavior with commercial sex workers that can lead to HIV transmission. Truck drivers for example can be at risk of engaging in unsafe sex with sex workers in transit stations while they are waiting for documentation processing, inspections and checks carried by officials employed by services or agencies within various ministries. Various country reports show that men with high mobility occupations such as drivers and truck drivers disclosed a median proportion of contacts with sex workers of 30 percent, ranging from 6 percent to 62 percent (Carael, Slaymaker, Lyerla, and Sarkar 2006). Table 2-1 summarizes some of the evidence on truck drivers having sex with commercial sex drivers for selected countries in Asia.

Table 2-1. Road sector drivers report sex with a female sex worker for selected male groups in Asia		
Country, sites	Occupation	% men reporting paid sex (year)
Bangladesh, Dhaka	Truck drivers	54% (2003)
Vietnam, 5 cities	Truck drivers	27%-33% (2000)
Lao	Truck drivers	31% (2001)
Cambodia, 5 provinces	Motorcycle taxi drivers	42% (1997)
India, Tamil-Nadu	Truckers and helpers	38% (1996)
India, Pondichery	Truckers and helpers	20% (2001)

Source: Carael, M., E. Slaymaker, R. Lyerla, and S. Sarkar. 2006.

2.2. Female partners who have unprotected sex with men at risk

Less is known about infection rates for HIV and other STIs of women who may be at intermediate levels of risk. These women are not commercial workers but their sexual contacts may include men at high risk for STIs and HIV. Women involved in non-commercial sex are usually and largely unaware that their partners may be linked to a greater network of sexual contacts and associated risks of HIV/STIs.

In relation to transport, women can be affected by HIV transmission through their husbands who may work as truckers or as workers in the construction industry. Women who live in close proximity to transport hubs, truck stands and road corridors are also likely to be at higher risk for STIs/HIV. This is partly because women can expect to be compensated for sex outside their primary relationships

A study in Kenya found that 46 percent of adolescent girls living next to a truck stand had sex with truck drivers and 78 percent of them received money or a gift in exchange (Nzyuko and McFarland 1997). In a Tanzanian survey, 50 percent of women living in and around truck stands were infected with HIV. Syphilis, gonorrhoea, and Chlamydia prevalence was 24 percent, 12 percent and 30 percent respectively (Nyamuryekung et al. 1997).

Women are especially vulnerable to HIV. Women may be more biologically vulnerable to HIV and it has been reported that an HIV positive man is twice as likely to transmit the virus to an uninfected woman than for an HIV positive woman to infect her male partner (WHO 2000). Also, in many societies, women are in a weak position to demand the use of condoms. As a result, many women are infected by their sole partner or husband. Women with more than one partner, such as those driven by economic necessity, may also be in a weaker position to insist on condom use. The socio-economic context of commercial sex leaves little room to negotiate condom use, and not using a condom often elicits more payment (IOM 2005).

2.3. Men who have unprotected sex with men

It is estimated that at least 5-10 percent of all HIV cases worldwide are attributable to sexual transmission between men. Data on HIV transmission through sex between men and on the prevalence of male STIs among men who have sex with men (MSM) is very poor in most developing countries (Cáceres et al. 2006). Even in South and South East Asia, and Latin America and the Caribbean where relatively more data on MSM is available, the direct contribution of MSM to the HIV epidemic is still not clear.

Even the term MSM itself is problematic owing to the great variety of geographic, social and sexual diversity that attach itself to the term MSM (AmfAR 2006). The issue of how males see their male partners can come to play in Asia, for example, due to the significant social presence in some countries of a third gender (that is, male-to-female transgender) that may not be considered male. As a result, except for a few NGO programs, very few government programs have prioritized HIV transmission risks for men who have sex with men, even in regions where homosexual transmission has been pronounced, as in Latin America and parts of Asia.

Recognizing the importance of reaching MSM with HIV prevention programs could help limit the spread of HIV transmission within the transport sector. However, male-sex is highly stigmatized and surveillance in male sex workers and gay men is even more difficult among transport workers. A few studies done in Asia and Latin America provide some indication on the number of transport drivers who have had sex with men (Table 2-2). There are also reports of men having sex with men among port workers: 13 percent of port workers in Lae Port in a 2006 Papua New Guinea Behavioral Health Surveillance Survey (Hughes 2008).

In other regions of the world, sexual acts between men are rarely reported because of the strong stigma associated with male to male sex in most societies. Men who have sex with men will face discrimination at work when their sexual preferences are known or supposed. This would be true in the context of transport, a predominantly male sector which is often associated with a 'macho' culture in which openness to multiple sexual relations with women can be part of the code of conduct.

Table 2-2. Sex between drivers, their assistants and other men	
Country	Male truckers who had sex with a male sexual partner in the past year
Brazil	24% (Lacerda et al. 1997)
Pakistan	49% (Agha 1999)
Philippines	13% (Uysingco 1995)
India	15% (Khan 2004)
Bangladesh	22% rickshaw pullers (Khan 2004)

Several recent studies suggest that unprotected sex between men is probably a more important factor in the epidemics in Sub-Saharan Africa than is commonly thought. There is anecdotal evidence of unprotected sex between men and some studies by AMREF have reported sexual activity between older drivers and their male helpers. In the Kenyan port city of Mombasa, 43 percent of men who said they had sex only with other men were found to be living with HIV (UNAIDS 2008b).

2.4. Alcohol and drug users

The use of alcohol or drugs can add substantially to the risk of engaging in casual unprotected sex relations and is a contributing behavioral risk factor to the spread of the HIV/AIDS epidemic. Alcohol consumption is often cited as both, a reason for engaging in sexual encounters, and for not using condoms in both consensual and non consensual sex (WHO 2005). Researchers have also found an association between increased availability of alcohol and sexually transmitted disease rates (Stratford et al. 2000). In transport, alcohol use and the influence of alcohol in sexual decision-making has been reported (Mbulaiteye et al. 2000; ADB 2004; Stratford et al. 2000). A study in India among 315 long distance truck drivers working along the Pune-Ahmednagar State Highway No. 27 showed that truck drivers who consumed alcohol were 2.71 times more likely to visit a commercial sex worker than those who did not (Chaturvedi et al. 2007). In-depth interviews among truckers in Itajai, the largest port in southern Brazil receiving more than 400 truck drivers every day, revealed that the use of alcohol is frequent among truck drivers, and the constant drug/alcohol use favors unsafe sex (Koller et al. 2004).

HIV is also transmitted through the sharing of contaminated needles and syringes and other equipment employed by drug users. Injection drug use, primarily of heroin, has been a major factor contributing to the spread of HIV and AIDS in many Asian as well as European and Central Asian countries, where drug users were among the first population groups to be infected. Injection drug use among transport workers as reported for truck and bus drivers, seafarers, and construction workers place these workers at even greater risk of transmission (World Bank 2008; Thailand Seafarers Research Team).

A worrying trend in drug abuse relates to the use of various types of psychotropic substances, particularly amphetamine-type stimulants (ATS), especially among certain occupational groups who feel the need for strong stimulants to keep awake and to maintain stamina. These drugs have also been associated with increased libido, disinhibition, and decreased condom use (Ferreira et al. 2008). In Thailand, two separate surveys reported that truck drivers who travelled domestic long distances used amphetamines and also used small amounts of alcohol to help release the effect of the drug, with an increase in sexual activity and low condom use (ADB 2004). In Brazil, the use of the stimulant known as 'arrebite' has been linked to high rates of unprotected sex and sexual risk behavior among truck drivers (Ferreira et al. 2008).

3. THE POLICY ENVIRONMENT FOR MAINSTREAMING HIV IN TRANSPORT

The transport sector has an important role to play in mitigating the spread of HIV owing to its role as a vector in the spread of the epidemic. There are many partners and institutions involved globally in the fight against HIV and a response by the transport sector must take into consideration the multi-sector effort already underway. A challenge for the sector is how to design a strategic response that fits within the global AIDS policy environment as well as the architecture of existing national HIV responses.

3.1. The International AIDS multi-sector commitment


International support for multi-sectoral action in the fight against HIV has developed and intensified over the past decade. The Declaration of Commitment on HIV/AIDS was adopted in 2001 during the first United Nations General Assembly Special Session (UNGASS). It acknowledged that the AIDS epidemic constitutes a 'global emergency and one of the most formidable challenges to human life and dignity.'

The Declaration of Commitment on HIV/AIDS covers 10 priorities, from prevention to treatment to funding, and these reflect a global consensus on a comprehensive framework to achieve the Millennium Development Goal of halting and beginning to reverse the spread of HIV/AIDS by 2015.² Recognizing the need for multi-sectoral action on a range of fronts, the Declaration of Commitment addresses global, regional and country-level responses to prevent new HIV infections, expand healthcare access and mitigate the epidemic's impact. Although it was governments that initially endorsed the Declaration of Commitment, the document's vision extends far beyond the governmental sector - to include private industry and labor groups, faith-based organizations, non-governmental organizations and other parts of civil-society, including organizations of people living with HIV.

The Declaration calls for careful monitoring of progress in implementing the agreed upon commitments. In 2002, the Joint United Nations Programme on HIV/AIDS (UNAIDS) Secretariat collaborated with its co-sponsors and other partners to develop a series of core indicators to measure progress in implementing the Declaration of Commitment. There are now 25 core indicators ranging from AIDS spending and government AIDS policies to the number of people receiving anti-retroviral drugs and the percentage of most-at-risk populations reached by HIV prevention programs. Since the creation of the Declaration in 2001, every two years governments have submitted reports to the Secretary General of the United Nations detailing their countries' progress in meeting the UNGASS Declaration of Commitment on HIV/AIDS. These documents are used by UNAIDS to report on the global HIV/AIDS epidemic.

The multi-sectoral approach implies that the transport sector must cooperate with various groups involved in the fight against HIV, including health sector specialists and officials and National Multisector AIDS Committees (see below), district or community groups, UNAIDS partners, governments at all levels, donors, employers, and social funds. Furthermore, since the 2005 Paris Declaration on AID Effectiveness, multilateral organizations and donor countries have agreed to harmonize their aid mechanisms and to align with government-owned national strategies and policies, including in areas such as HIV/AIDS. For the transport sector, this means that the sector will need to contribute in a coordinated and complimentary way to support implementation and capacity building with UNAIDS and other partners.

Transport staff should make use of the information provided by UNGASS reports to review the status of the HIV epidemic in the country where transport operations are being planned. UNGASS country

² For a complete copy of the UNGASS Declaration of Commitment on HIV/AIDS, please visit: http://data.unaids.org/publications/irc-pub03/aidsdeclaration_en.pdf 

reports also provide useful information about the status of multi-sector strategies and the role that the transport sector plays in each country's framework. Out of the 122 countries that submitted progress reports in 2008, majority have reported including a multi-sectoral approach in their national strategies which requires the mobilization of other sectors and line ministries beyond health in their national HIV response (Annex 3 provides a list of UNGASS 2008 reports from developing countries). However, the review of the UNGASS 2008 reports shows that only a handful of countries, primarily in Africa, identified transport as a key sector in their national strategic framework. In addition, there is no specific description of the type of intervention planned or by which government body of the transport sector (ministry, road or highway authority, and so on).

3.2. National AIDS responses

A transport strategy to mitigate HIV/AIDS transmission should fit within national AIDS responses and be undertaken with support of various health services delivery mechanisms that are most effective for providing HIV services. An important ingredient for success will be the working relationship that must be established between transport staff, health staff and local partners.

National HIV responses have traditionally been led by Ministries of Health (MOH). In this context, health sectors around the world have established National AIDS Programs, which have had the responsibility of implementing interventions that prevent and control HIV/AIDS, while monitoring the dimensions and evolution of the epidemic.

New governing structures such as National AIDS Committees or Councils (NACs) have also been created in the past decades in order to lead and coordinate national responses, following soaring prevalence rates and international recognition of the multi-sector nature of HIV/AIDS. NACs are stand-alone institutions, independent of government ministries, and usually comprise a governance body (the Board) and an operational body (the Secretariat). Since the formal endorsement of the 'Three Ones' principles³ by countries and major international organizations, NACs are often the main coordinating entities in charge of national AIDS responses. In 2005, 95 percent of 66 countries surveyed by UNAIDS had national coordinating authorities. Among those over 80 percent were recognized as the main coordinator of the HIV response.

3.3. Civil Society and Non-Governmental Organizations

Civil society groups and non-governmental organizations (NGOs) significantly contribute to national HIV responses and are key partners for the transport sector in implementing effective HIV interventions. In many countries, civil society is a major service provider and is able to achieve results in areas and with target groups difficult of access by governments. Activities typically focus on prevention and treatment aspect, fighting the stigma surrounding the disease and in raising awareness about the subject. In relation to transport and mobile populations, NGOs can also provide information, education and communication services as well as Voluntary Counseling Services (VCTs) for communities living near roads and along transport corridors.

AMREF was one of the first NGOs to implement a transport and HIV/AIDS project in Tanzania through its work with truck drivers (Muizarubi, Cole and Lamson 1991). CARE has also worked extensively in this area by creating facilities with washing, resting and recreation as well as medical and counseling services. These facilities were not HIV/AIDS clinics but places where transport workers could rest, talk, play games and watch TV. This was because the truck drivers could not access counseling or testing facilities for fear of being stigmatized. Places which provided exercise equipment, adequate parking, security and communications facilities or other form of entertainment besides sex proved to be popular. In Bangladesh, CARE extended its target to transport workers including truck drivers and rickshaw pullers. Peer education and drop-in centers for drivers were the central activities of this program. CARE also worked on HIV/AIDS prevention on the border area of Cambodia, Lao PDR,

³ Agreed upon at the International Conference on AIDS and STIs in Africa (ICASA) held in Nairobi, Kenya in September 2003, the 'Three Ones' principles are: one agreed HIV/AIDS action framework that provides the basis for coordinating the work of all partners; one national AIDS coordinating authority, with a broad based multi-sector mandate; and one agreed country-level monitoring and evaluation system.

Thailand and Vietnam. In addition to CARE, FHI, PSI also implemented programs and project in West Africa while Pathfinder, and Save the Children USA implemented operations in East Africa (Ethiopia).

3.4. HIV prevention and intervention programs

There are common HIV/AIDS prevention strategies currently being implemented to prevent the spread of HIV and for treating people already infected with the virus. These strategies can be used and adapted to specifically meeting the challenges posed by the epidemic in the transport sector. Box 3-1 highlights the main interventions available to combat HIV in the sector.

Box 3-1. Key prevention activities for transport sector projects

- Behavior communications
- Peer counseling
- STI/ STD treatment
- Use of condoms
- Voluntary Counseling and Treatment

Behavior communications

Awareness and prevention campaigns through Information, Education, and Communication (IEC) or Behavior Change Communication (BCC) materials and their dissemination aim to provide information about the risks and prevention of the disease as well as information about the availability of further information and services to treat the disease. The overarching goal is to encourage behavior change to minimize the risk of infection, usually through increased condom use; decreased number of sexual partners; and decreased incidence of sexual relations with high risk partners.

There is considerable diversity in the way awareness campaigns are conducted. Also, in any one country, there are often a number of HIV prevention strategies running simultaneously, creating synergies between the various aspects of behavioral change campaigns such as social marketing of condoms and HIV/AIDS campaigns.

Although campaigns targeted at transport workers can have the same objectives as other awareness campaigns, their content and modes of delivery will be highly dependent on the cultural context and the specific risks that are particular to the workplace risk factors of transport workers.

Peer counseling

Peer counseling can be one approach to provide information, raise awareness, and stimulate discussion about HIV. Changing sexual behavior is challenging and studies show that informal social networks made up of friends, siblings and trusted peers who have changed their behavior and are knowledgeable about HIV can be persuasive role models.

In transport, there is general consensus that transport workers are influenced by peers whom they respect. Group activities for transport workers that connect peer activities with educational messages on HIV/AIDS are widely perceived as successful educational tools and can ensure participation. These activities can include live dramas or videotapes and should target workers along with local communities at trading centers and high-risk areas. NGOs and organizations of People Living With AIDS (PLWA) with experience in peer education can help to design and implement such peer educator activities.

Treatment of sexually transmitted infections

Sexually transmitted infections (STIs), or sexually transmitted diseases (STDs) are a significant problem in developing countries and the ensuing complications have received renewed attention since the emergence of AIDS (Lieve, Van Dam and Piot 1991). Adequate management of patients with STIs is an important tenet of any AIDS prevention strategy because of the interaction between STIs and HIV. Unprotected sex is a risk for both. STIs, particularly those where there is genital ulcerations like ulcers or sores, have been found to strongly increase the transmission of HIV. In addition, HIV infection, through its effect on the immune system can increase susceptibility to STIs and also inhibit the effectiveness of any STD treatment.

Prevention of HIV/STD transmission through condom use as well as early and prompt management of STIs, including partner notification, are considered key strategies in the management of STIs and the fight against AIDS.

STD trends can offer important insights into where the HIV epidemic may grow, making STD surveillance data helpful in forecasting where HIV rates are likely to increase. Better linkages are needed between HIV and STD prevention efforts nationwide in order to control both epidemics. Likewise, people who have coming spontaneously to a clinic can be considered a self-referred group, at an increased risk from HIV infection.

Distribution and use of condoms

Condoms are an indispensable part of HIV prevention and are linked to behavior change. Awareness and advocacy about condoms are necessary to ensure that information about their efficacy is communicated. Condoms must be made available on a regular basis as they are one of the main ways in which individuals can protect themselves from HIV infection as well as from other sexually transmitted infections (STIs) that may facilitate HIV transmission during subsequent exposure to the infection.

Depending on the country context, condoms can be accessed through various outlets such as public distributors and health facilities as part of national family planning programs. In many countries, people cannot access condoms easily, regularly or cheaply. The unavailability of condoms and on the main sites of sexual encounters in particular is a situation that fosters risk to HIV infection. There are a number of condom social marketing projects implemented by private NGOs to increase the availability and use of quality, low cost condoms. These programs are often subsidized by governments or donors, contributing to lower prices and increased access to condoms.

It is important to encourage transport workers to use condoms and to break potential socio-economic and cultural barriers that may deter workers to use them. For transport workers and other mobile groups however, condoms may not be available in the precarious conditions where sexual encounters take place or may not be located in strategic locations—such as hotels, restaurants, closed houses and gas stations—relevant for targeting workers and the vulnerable groups that associate with the sector.

Voluntary counseling and testing

HIV voluntary counseling testing (VCT) is receiving increased prominence in HIV prevention activities as it can help inform uninfected individuals of the risks of HIV and educate HIV positive individual about coping and preventing transmission to their partners. A service providing VCT involves pre-test counseling, post-test counseling, and the test itself. Pre and post counseling testing helps bring an understanding of the nature and purpose of the HIV test. Pre-testing counseling examines what advantages and disadvantages the test holds for the person. Post-testing counseling examines what influence the result, positive or negative, will have on the person. Overall, VCTs serve as an entry point for persons with HIV/AIDS and/or STIs for further care, support and referral services.

Transport workers and vulnerable groups of transport projects should be given the opportunity to access VCT services in order to seek their sero-status so that they can protect themselves and others from infection. It should be noted that there has been some controversy over the effectiveness of VCT on risky behavior and impact on HIV transmission. Also, there are reports of adverse effects, including psychological distress and stigmatization. Failures to maintain confidentiality can lead to social and work discrimination.

3.5. Workplace strategies

HIV/AIDS is a workplace issue because it affects the workforce and because the workplace can play a key role in limiting the spread and effects of the epidemic. A number of international organizations, as well as public and private employers in transport, have recognized the vulnerability of workers in the sector and the need to put in place measures for the management of HIV/AIDS among the workers

who are already infected and affected while employed in the sector. Targeting workers makes economic sense and the workers are a group that companies can easily reach.

Workplace programs typically include education programs such as sensitization and provision of Information Communication and Education Materials (IECs) to the workers. Some programs have fostered screening for HIV in the workplace in order to encourage workers to know their sero-positive status as a measure of assisting in the fight against HIV and also for addressing the issue of personal health through prevention and management of HIV and AIDS. Treatment for AIDS through antiretroviral drug provision is less common, although businesses in hard-hit countries are beginning to expand their activities in this area.

Workplace strategies that focus on screening also aim to discourage disclosure of a workers' HIV status by any official who happens to have access to such information for reason of their position with the employer. Workplace measures have also included programs for wellness management, through prevention and education, for workers not yet infected.

Employee commitment to HIV workplace strategies can also contribute to data collection and monitoring and sharing knowledge about HIV in the sector as a whole. This has been demonstrated in Africa where trucker unions have been involved in awareness campaigns but is said to be less relevant in South Asia where 'there are no such unions' as the region operational network relies on the 'one man, one truck' business model.

The International Labor Organization (ILO) has been one of the leading organizations seeking to strengthen the capacity of workplaces to develop and implement HIV/AIDS workplace policies and programs. The International Labor Organization offers important guidance on combating the HIV risks associated with transport projects. It has also sought to strengthen occupational safety and health services while providing access to integrated HIV prevention, treatment and care services for workers and their families. The ILO Code of Practice on HIV/AIDS and the world of work recognizes HIV/AIDS as a workplace issue and goes beyond awareness-raising to include non-discrimination, confidentiality, care and support (ILO 2001). In addition, it provides key principles for policy development (Box 3-2).

The ILO's tripartite structure and processes of social dialogue provide a platform to reach out to all workers, formal and informal, based on the rights based approach of the ILO Code of Practice on HIV/AIDS and the world of work.⁴ Through access to workers' and employers' organizations and their networks, ILO ensures that workplace issues are fully integrated in HIV/AIDS action plans and national development strategies in support of the 'Three Ones' principles (see discussion on national responses with footnote reference on the principles).

Box 3-2. Key Principles of the ILO Code of Practice on HIV/AIDS and the world of work

1. **A workplace issue;** HIV/AIDS is a workplace issue because it affects the workforce and the prevention can take place in the workplace.
2. **Non-discrimination;** there should be no discrimination or stigma on the basis of real or perceived HIV status
3. **Gender equality;** the empowerment of women are vital to preventing HIV spread.
4. **Healthy work environment;** the workplace should minimize the occupational risk.
5. **Social dialogue;** a successful HIV/AIDS policy needs cooperation between employers, employees and governments.
6. **No screening for purposes of employment;** testing for HIV at the workplace should be voluntary and confidential and never used to screen applicants or employees.
7. **Confidentiality;** access to personal data including HIV status should be bound by confidentiality.
8. **Continuing the employment relationship;** workers with HIV related illnesses should be allowed to work for as long as medically fit.
9. **Prevention;** prevention work can support behavior change.
10. **Care and support;** workers are entitled to affordable health services.

Source: ILO 2001.

⁴ The ILO's tripartite structure consists of three main bodies, all of which comprise government, employer and worker representatives.

3.6. Trade unions and transport workers' associations

HIV has also become an important issue in strategic planning and program of unions. Since the late 1980s, the International Transport Workers' Federation and some of its affiliate organizations have been actively involved in HIV prevention programs for different types of transport workers through educational activities. ITF has worked with the ILO, the WHO and the International Maritime Organization (IMO) to develop information messages for transport workers and encourages its member unions to work with other organizations, such as community based AIDS groups, advocacy groups, national and international NGOs and other international organizations. This partnership to fight AIDS seeks to link with existing HIV prevention and care programs implemented by other organizations; to establish health and information centers; and promote VCT among the members.

ITF's major contributions in the fight against AIDS began in Africa in 1999 with a three-month study, funded by the Dutch union confederation FNV to investigate the impact on transport workers in Uganda. The study results showed that the living and working conditions of transport workers were significantly influencing the risk of HIV exposure and the risk of transmitting the virus among themselves and other communities (UNAIDS 2006). As a follow-up, two ITF affiliates, the Amalgamated Transport and General Workers Unions (ATGWU) and the Uganda Railway Workers Union (URWU) set up a significant project in Uganda targeting long-distance truck drivers, workers in other transport sectors and sex workers at the truck stops. The project, which has been running since 1999, seeks to trigger behavior change among truck drivers through a combination of information, education, workplace policies and condom distribution. Well-known programs in Bangladesh and South Africa have also demonstrated the ability of ITF and its affiliates in reaching mobile workers while increasing social acceptance by workers and managers of the importance of HIV/AIDS training and resources.

In addition to its country-based initiatives, ITF has developed a manual 'HIV/AIDS: Transport Workers Take Action—An ITF Resource Book for trade unionists in the transport sector' aimed at union leadership, negotiators, trainers and workers in order to provide background information on HIV/AIDS in the transport industry and to help develop the skills and capacity of transport unions to develop workplace policies and collective bargaining strategies with employers for their involvement in health and HIV programs (ITF 2003). Since 2006, ITF has launched a long-term campaign to move HIV/AIDS into unions' core programs and activities and to encourage unions to lobby to establish HIV as a workplace issue. In this context, ITF regularly produces newsletters, an online bulletin board, and a magazine to report on activities of their affiliates related to HIV/AIDS. In 2008, the ILO, the International Road Union (IRU) Academy and ITF launched a toolkit aimed at training road transport workers and operators on HIV/AIDS prevention, "Driving for change: A training toolkit on HIV/AIDS for the road transport sector, change in behavior, counseling and testing, care and support' (Annex 1).

3.7. Stigma and discrimination

Stigma is a particular problem in the fight against AIDS, especially in the workplace, as it takes many forms and can result in discriminatory actions, ranging from the unfair treatment to the rejection or firing of employees based on their real or perceived HIV status. Factors that explain stigma in the workplace typically include lack of confidence in HIV information provided, uninformed fear of contagion, and social and cultural norms about sexually transmitted diseases. As a result, HIV/AIDS stigma in the workplace can lead to unfavorable attitudes and policies directed toward people living or associated with HIV/AIDS.

Box 3-3 summarizes the main reasons why individuals infected are stigmatized because of their illness and why being HIV positive often leads to fear and shame. Although many people continue to live full lives and continue working for years after a positive diagnosis, the virus is widely seen as a death sentence. As a result, fear often obscures messages about positive living. Also, the fact that sexual contact and sharing needles that can be contaminated through drug use are the main route

Box 3-3. Factors that can lead to stigmatization of HIV individuals

- Associated with deviant behavior
- Viewed as the responsibility of the individual
- Tainted by a religious belief as to its immorality and/or thought to be contacted via morally-unsanctioned behavior
- A transgression of social norms

for HIV transmission causes unease and embarrassment, particularly in the background of defined social and cultural norms in fairly homogeneous societies.

Companies' efforts to implement nondiscriminatory policies and HIV/AIDS prevention, care, and treatment programs for their workers can be blunted by fear of HIV/AIDS-related stigma among workers. Employees may fear social isolation and being ridiculed by co-workers and community members. These concerns discourage many workers from getting tested for HIV and may also prevent them and their families from getting care, support, counseling and treatment.

3.8. National HIV/AIDS Transport Policy

A number of Ministries of Works and Transport have established their own HIV/AIDS plans and workplace policies to address the threat posed by the epidemic. These policies aim to cushion potential negative effects on its workforce but also the delivery of transport services through the potential loss of staff to the epidemic. Government policies aim serve as a guideline to address HIV/AIDS issues within the ministry, raising awareness on the impact and consequences of the disease and the needs of those infected or affected. Policies also ensure that communication is made to all departments of the ministry about care and support available; limit discrimination practices against individuals infected with AIDS; and encourage employees to know their HIV status by taking a HIV test in confidentiality. Financial and human resource constraints at the ministry level can prevent full implementation of the HIV plans but these typically contain components on prevention; treatment and care; research, monitoring and evaluation; human and legal rights; and training and development.

Examples of national HIV/AIDS policies and HIV/AIDS awareness programs for the Ministry of Works and Transport exist in Botswana, Lesotho, Zambia, Malawi, Tanzania, Zimbabwe, South Africa, and for the Southern African Development Community (SADC). Several Ministries of Transport in Asia and the Pacific Region have also led HIV mitigation efforts such as the National Highways Authority of India, Ministry of Public Works and Transport (MPWT) of Cambodia, MOT of Vietnam, and the MPWT of the Lao PDR (ADB 2008). Other countries in Asia where transport sector is included in the national strategy for fighting AIDS include China, Indonesia, Papua New Guinea and Mongolia. A complete list of countries national transport responses can be found in Annex 3.

3.9. HIV/AIDS contract clauses in the construction sector

Recognizing that construction sites in developing countries can create hot spots for HIV transmission, the International Federation of Consulting Engineers (FIDIC) and its Member Firms approved a Policy on HIV/AIDS in the Construction Sector in March 2004, thereby setting a benchmark response for addressing the epidemic in construction sites as well as developing guidelines in the transport sector. The aim of the policy was to address the fact that the prevalence of sub-contracting with the emergence of many small contractors and the tendency toward labor subcontracting increased the complexity of developing an effective HIV/AIDS strategy targeting construction workers.⁵

The FIDIC Policy on HIV/AIDS aims to build an HIV resilient workforce as well as communities associated with the workforce and includes five strategies to be implemented in engineering and construction works contracts: raising awareness about HIV/AIDS; ensuring that construction workers have access to condoms; HIV voluntary counseling, testing and referral services; sexually transmitted infection diagnosis and treatment; and monitoring of outcomes, in collaboration with National HIV/AIDS Authorities.

To implement its strategy, FIDIC also prepared HIV/AIDS Clauses for inclusion in contract documents wherever there is the slightest risk of HIV/AIDS infection relating to the construction site or activities. These clauses were developed based on ILO standards for Construction and specification for HIV/AIDS awareness in the construction industry in South Africa. Their intent is to specify the measures to be undertaken by the contractor and which are to be measured and priced in the tender Bill of Quantities.

⁵ Information about FIDIC's HIV policy can be found on FIDIC's website: www.fidic.org

4. RISK ASSESSMENT OF HIV INTERVENTIONS IN TRANSPORT

While it is well recognized that the threat of HIV can no longer be seen as simply a health issue, there is less of an agreement on the type of multi-sector interventions that should be undertaken when a direct positive outcome on HIV spread cannot easily be identified. Even low cost interventions might not present significant benefits from an economic perspective and a number of interventions might not warrant scale up or replication.

Choosing whether an HIV intervention in a transport project is warranted should depend on a risk assessment of the various factors relevant for mitigating the risk of HIV transmission within project context. These factors include a country's stage of the epidemic, the HIV specific risks within a particular type of transport project as well as the attitudes, beliefs and practices of communities at risk, particularly about the sexual and drug-taking behaviors.⁶ that can contribute to the spread HIV.⁶

A mitigation component should be in a transport project when a country's epidemic is generalized and should mobilize the general population as well as most-at-risk groups. For countries where epidemic levels are concentrated and low, the type of intervention will depend on country and project contexts and most importantly on the sub-population groups identified through the review of existing epidemiological survey data and studies (Table 4-1). Once the risk level is assessed, a mitigation intervention should then be designed according to the specific transport project type.

Table 4-1. HIV risk assessment in transport operations			
HIV epidemic level	Risk of HIV infection	Behavioral data needs	Transport intervention
Generalized <ul style="list-style-type: none"> ▪ >1% in general population ▪ Multiple concurrent partnerships tend to drive epidemic ▪ >5% adult prevalence ▪ No 'low' risk for sexually active person ▪ >15% adult population is hyperendemic 	Sufficient sexual networking to drive epidemic and patterns of risk go far beyond high-risk groups and their partners	National behavioral/ population based data about generalized and sub-populations should be consulted. Any new risk behavior should be identified and evaluated	Mitigation should be required for all transport projects
Concentrated <1% general population >5% high-risk groups	HIV prevalence is high enough in one or more sub-populations (MSM; CSWs; IDU) but virus is not circulating to general population	Behavioral data is essential to determine possible links between high-risk groups and general population	Mitigation is strongly recommended for high-risk groups, incl. transport workers and based on evaluation of behavioral data depending on specific project context
Low <1% in any sub-population groups	Sexual networks are diffuse or virus has been introduced only very recently	Empirical/ behavioral study of risk behaviors, networks and other factors indicating potential spread of HIV	Mitigation is suggested for transport workers and also focus on identified high-risk groups depending on country context

⁶ It is a good first step for operational staff to 'know the epidemic' of the country where a project will take place. UNAIDS and WHO categorize HIV epidemics as low level, concentrated or generalized scenarios.

Road construction and rehabilitation projects can lead to short-term and medium-term negative impacts in terms of higher incidence of STIs, HIV, drug use, and trafficking of women and children. For construction projects worth over \$10 million, the World Bank standard bidding documents include clauses that require contractors to implement awareness-raising and other prevention measures among the workforce (Chapter 7.1. World Bank response: HIV clauses for standard bidding documents). HIV mitigation clauses should be included in construction projects, including in smaller contracts, particularly in countries with high prevalence rates among at-risk groups such as countries with concentrated epidemic. Table 4-2 identifies the various HIV preventive responses recommended for construction or rehabilitation transport projects according to the generalized, concentrated or low HIV epidemic levels.

Transport project type	Generalized HIV epidemic level	Concentrated HIV epidemic level	Low HIV epidemic level
Construction/rehabilitation	<ul style="list-style-type: none"> ▪ HIV education and behavior program <i>enforced</i> through contract clauses for transport staff and for communities (<i>general population</i> and at-risk groups) near project ▪ Provide transport workers with condom access through dispensers at strategically accessible points on construction camps for duration of contract ▪ Link intervention to local health and VCT services ▪ Consider measures to improve working conditions of transport staff ▪ Consider an ARV distribution strategy or linking with an antiretroviral program for transport workers infected with AIDS ▪ Policy to address stigma and discrimination 	<ul style="list-style-type: none"> ▪ HIV education and behavior campaign <i>strongly recommended for transport staff</i> through contract clauses and <i>any at-risk groups</i> identified during situation analysis ▪ Consider subsidiary or promoting social marketing of condoms for target groups ▪ Link intervention to local VCT resources as well as resources for treatment of STIs ▪ Policy to address stigma and discrimination 	<ul style="list-style-type: none"> ▪ HIV behavior and education campaign <i>recommended</i> for transport staff through contract clauses and for at-risk groups identified during situation analysis such as women and young girls ▪ Social marketing of condoms should be envisioned ▪ Link intervention to local health and VCT services ▪ Policy to address stigma and discrimination ▪ Establish early warning systems to detect increase in HIV in vulnerable groups and other population as needed
Corridor	<ul style="list-style-type: none"> ▪ HIV education and behavior campaign <i>required</i> along transport corridor for transport workers, users, and local populations living near corridors. ▪ Develop capacity coordination and building of the project through cross-country cooperation and coordination of HIV/AIDS activities and access to health and VCT services ▪ Work with Governments to improve flow of commercial and passenger traffic along the corridor by facilitating harmonization of border procedures and regulations ▪ Provide rest areas and reduce time spent away from home for transport staff ▪ Work with local partner(s) to create and develop condom marketing posts along the corridor 	Same preventive responses <i>strongly recommended</i> as for generalized epidemic level	<ul style="list-style-type: none"> ▪ HIV education and behavior campaign <i>recommended</i> at key border posts, identified 'hot spots' and strategic transport corridor points for transport staff and at-risk groups identified during situation analysis ▪ Social marketing of condoms should be envisioned in key locations along corridors, identified 'hot spots' and at key border posts ▪ Link intervention to local health and VCT services

Table 4-2 (cont'd). HIV preventive interventions in transport projects according to HIV epidemic level			
Transport Project type	Generalized to Concentrated HIV epidemic level		Low HIV epidemic level
<p>City port development and logistics</p> <p>or railways</p> <p>or air transport</p>	<ul style="list-style-type: none"> ▪ Support the training of transport project workers on HIV and health relevant knowledge ▪ Utilize the transport system for HIV prevention education of the general public and for promoting HIV prevention within the sector ▪ Rely on peer employees as trainers ▪ Provide transport workers with condom access through dispensers at strategically accessible points ▪ Link intervention to local health and VCT services transport workers and passengers in communities near ports or railway stations and airports 	<p>Same preventive responses <i>strongly recommended</i> as for generalized epidemic level</p>	<ul style="list-style-type: none"> ▪ HIV behavior and education campaign <i>recommended</i> for transport staff and among high-risk groups in communities near train stations, airports and across ports ▪ Link intervention to local health and VCT services ▪ Social marketing of condoms should be envisioned ▪ Seek to strengthen existing HIV response of local governments near city ports, train stations, and airports

For transport projects that seek to improve efficiency of specific sub-sectors—city port and waterborne logistics projects or railways or air transport projects—HIV preventive measures should be concerned with high mobility patterns and hot spots with active sexual networks and risk behavior. Interventions in these projects should focus on workplace policies and in strengthening existing local government programs in order to prevent the spread of HIV from generalized to concentrated areas. As is the case for corridor projects, outside of major high risk and sexual networks zones, there should be ‘focused’ prevention activities based on any potential new high risk zones in low HIV epidemic areas and to prevent the amplification or spread of the epidemic to these low HIV infected areas (Table 4-2).

5. GUIDELINES AND COSTS FOR HIV INTERVENTIONS IN TRANSPORT

HIV interventions in the transport sector should focus on promoting safe sex behavior in all transport sub-sectors and hubs (airports, ports, construction sites) in high risk zones of project areas, such as construction sites or could-be 'hot spots' such as cross-borders, markets, hotels, bars and brothels near transport projects. Interventions in the sector should include the provision of training on HIV/AIDS risks; emphasize condom use; and seek to refer transport workers and vulnerable groups to local health and VCT services.

Every transport project where an HIV intervention is considered will have three main phases: a planning phase which includes a situation analysis of HIV transmission risks in relation to the project area; an implementation with key HIV prevention measures; and a monitoring and evaluation phase to review progress and evaluate the effectiveness of the intervention on HIV spread.

5.1. Planning for an HIV intervention in a transport project

At the beginning of a transport project, an assessment should provide a sense of the local HIV/AIDS situation and response, an overview of the vulnerable populations—including their size and location—and the social, economic and cultural factors that underlie behavior and vulnerability.

Contact local and national AIDS authorities. The first step in designing any HIV intervention for the transport sector is contacting or communicating with the National AIDS program, either at the state or local level. The involvement of the national program should be sought to get advice on potential project options while ensuring that any HIV/AIDS intervention within the project will avoid duplication of effort in the fight against AIDS and reduce costs and resource needs. Local and national AIDS authorities can provide up-to-date information on local and national HIV/AIDS prevalence rates and about sub-populations that are most vulnerable to infection. Also, local health and AIDS authorities can provide information about existing health and HIV/AIDS services offered within the project boundaries by government authorities and local service providers. Finally, this step will ensure that any HIV/AIDS intervention within a project will be consistent with the National AIDS policy and oriented to the needs of the local context.

Assess and map HIV risks of a transport project. An assessment (2-12 weeks) of the scope and scale of the local HIV/AIDS epidemic in the area(s) of the project should be done in order to assess risky behaviors and to map out the location and size of 'vulnerable and at-risk groups'. The assessment should be based on the evaluation of the risk potential discussed with the national AIDS authorities. It should also consider whether it is feasible (logistically and financially) to initiate interventions for the entire project or only for sub-sites; for all vulnerable groups or only for transport workers. This decision should primarily be made based upon available information about prevalence rates and transmission risks associated with the project. An important aspect of deciding about interventions in the transport sector has to do with identifying the levels of risk for the sector in a specific country context (more is discussed in the risk assessment section). Box 5-1 highlights the steps recommended for establishing an assessment of the local HIV situation and the socio-economic factors that underlie behavior and vulnerability in the project context.

Box 5-1. Steps for assessing and mapping HIV risks of a transport project

- Survey social, environmental, and local factors that affect risk in the vulnerable sub-populations;
- Approximate the number of vulnerable populations and their locations;
- Identify the sexual behavior patterns of transport workers (truck drivers, road construction workers, operators of equipment and so on);
- Locate high transmission areas where various risk factors (concentration of labor force, high population density, mobile and displaced populations, border crossings, rest stops, corridors and so on) can interact in ways that increase vulnerability of infection;
- Map the localization and accessibility of condom retail outlets in relation to activities of transport workers and vulnerable groups;
- Review ongoing and past activities that have addressed HIV/AIDS (i.e., what organizations and groups are doing and not doing about HIV/AIDS in the particular area of the project).

Establish baseline for intervention and impact evaluation. Data collected as part of the assessment should contribute to creating a baseline that will be used during the design and monitoring and evaluation phases of the project. Initial data collected can be based on existing national and high quality local data, and participatory assessments. In areas where there are no recent behavioral surveys or where little data is available to describe the behavior of high risk groups, short behavioral surveys can be considered (See Annex 1: Resources on situation analysis and baseline surveys). Questionnaires should include questions that are specific to tracking behaviors of all potential vulnerable groups of a project such as construction workers, truckers, commercial sex workers, women living in communities near a transport project. The surveys and mapping exercises are not intended to be scientifically rigorous exercises but rather to provide a behavioral snapshot of a project area, providing useful and complementary information to other existing local data and assessment methods. The exercise should give an overview inventory of population, employment, infrastructure, transport routes and health and social services of a project area.

Develop partnerships with local stakeholders. In addition to linking with local AIDS authorities, it is important to communicate and collaborate early with international and local development partners working on HIV/AIDS issues in the country of the project (for example Solidarity Centre, CARE, FHI, PSI, local transport union, Global Fund and so on). An HIV intervention in a transport project will require the mobilization of different actors with significant local HIV expertise and potential for benefitting the intervention while avoiding duplication. The support and role that these partners in the design, implementation and monitoring of the HIV intervention should be evaluated and planned.

5.2. The main components of an HIV intervention in transport

The five common HIV/AIDS preventive strategies currently implemented to prevent the spread of HIV should be considered in the context of transport operations (see Section 3.4: The policy environment for mainstreaming HIV in transport: HIV prevention and intervention programs): behavior communications; peer counseling; STI treatment; use of condoms; and voluntary counseling and testing. In addition, these prevention strategies should be implemented in parallel with policies that seek to improve the working conditions of transport workers while limiting stigma and discrimination practices surrounding HIV/AIDS issues.

Behavior and education campaigns. Across all transport activities, HIV/AIDS behavior and education campaigns can be designed to raise awareness of workers on the transmission and risks associated with the virus. There is clear evidence that information/ knowledge about HIV transmission and prevention is one key factor leading to behavior change. Existing training materials should be considered or effective messages and approaches for informing transport workers, commercial sex workers (CSW) and local population in high-risk areas should be identified (Annex 1 contains resources on education campaigns). The materials should be pre-tested by a targeted sample sub-group to ensure that the materials are audience-appropriate (for example books or pamphlet would not be appropriate for a group of illiterate individuals). Communication strategies to reach vulnerable groups along transport corridors can be particularly challenging due to the high level of mobility of

transport workers as well as the sub-populations interacting along the corridor. Based on the local conditions, an HIV/AIDS education campaign can be run with support from a local NGO with experience in HIV/AIDS awareness campaigns for mobile populations or with the support of trade unions, which have resources and experience in HIV information campaigns for workers and mobile groups. A number of employees can also be trained as *peer educators* to help implement the education and behavior campaign, often at lower costs and in a more sustainable fashion.

Condom use. The barriers to the use of condoms by transport workers should be identified in order to address them properly and to break the social and cultural barriers that may deter the workers and vulnerable groups from using them. If possible, the location of condom outlets should be mapped for high risk areas on highways, construction sites and/or truck and bus stops. Also, with the help of the NGO, truck or drivers' associations, condoms should be provided along with information on correct condom use. If no resources are available within the project to fund condoms, funding should be sought from international AIDS partners. Alternatively, a NGO specialized in social marketing of condoms could contribute to this strategic component of the intervention.

Linking HIV campaign to STI treatment and VCT services. Workers and vulnerable groups targeted by the HIV intervention should have access to voluntary counseling and testing (VCTs), along with confidentiality toward their results and with access to health services for care follow-up if needed. With support from the health ministry or of a local implementation unit, the project team should check that there is adequate provision of reproductive/sexual health services so that targeted groups receive comprehensive medical aid schemes, including low-cost or free STI treatment packages in the project areas. If this is not the case, the team should discuss with health authorities how to link the project target groups with the closest health resources available.

Workplace strategies to minimize behavior risk in transport operations. The working conditions of transport workers should be ameliorated in order to minimize their risk behavior likely to lead to increased HIV infection. For road transport, measures to improve working and security conditions could include setting up of rest stops along major routes. It could also include the development of safe and clean accommodations such as telephones and laundry services which could also be good points to provide support, information on HIV/AIDS and possibly treatment. Other options can include reducing the length of time away from families by transport workers or allowing transport workers to bring along family members for long trips whenever possible.

Fighting stigma and discrimination. The *ILO Code of Practice on HIV/AIDS and the world of work* can be used as advocacy tool to obtain the commitment of governments and employers and enforce compliance on HIV/AIDS issues in the workplace (see Section 3.5: The policy environment for mainstreaming HIV in transport: Workplace strategies). A successful HIV/AIDS policy and program should avoid discrimination or stigma against workers based on real or perceived HIV status and needs cooperation and trust between employers, workers and governments. Transport unions and affiliates/partners (for example International Transport Workers' Federation, International Road Union, International Labor Union) are in a unique position to lobby for comprehensive HIV/AIDS treatment plans and can help advocate for progressive policies. It is important to ensure confidentiality of personal data gathered through the HIV interventions, including a workers' HIV status, and to ensure that HIV testing is voluntary and confidential and never used to screen job applicants or employees.

5.3. Establishing a Monitoring and Evaluation System

Across transport projects, an important aspect of any HIV/AIDS mitigation intervention consists of monitoring progress and evaluating impact. The M&E process should start during the design phase of the operation and should include a case control baseline study, and later on include routine data collection to monitor progress, and a subsequent end-line study to review results. Box 5-2 provides guidelines on how to undertake monitoring and evaluation of HIV/AIDS in transport projects.

Box 5-2. Guidelines for establishing an M&E system to assess impact of HIV interventions in transport

- Determine or assign who will oversee the development of the M&E system within the Task Team;
- Identify a local point person within MoH, MoT, or NGO responsible for implementing HIV/AIDS related work for the project and who will be responsible for assisting in the regular collection of indicators;
- Identify the HIV/AIDS mitigation goals, objectives and beneficiaries
- Select indicators that will contribute to measuring and improving the effectiveness and efficiency of the intervention;
- Identify data sources and collect data
- Compare findings to benchmarks
- Provide explanatory information to understand indicators
- Finish analysis, report the indicators
- Learn from experience and integrate information into next interventions.

A table with suggested project indicators and base values for an awareness and behavior campaign is included in Annex 2. The likely target groups for such a campaign would be transport workers (construction or drivers) as well as commercial sex workers; men who have sex with men; women near project areas; and/or injection drug users (IDU).

5.4. Costs of interventions in transport

The cost-effectiveness debate of HIV prevention strategies has been addressed in a handful of HIV cost analysis studies for HIV programs in low- and middle-income countries (Guinness, Levine, and Weaver 2004). These studies are not easy to compare as they report the costs and effects of different combinations of interventions and in various settings. Overall, the majority of HIV prevention approaches are still recognized to be more cost-effective than treatment interventions (Guinness, Levine, and Weaver 2004).

There is no known cost-effectiveness analysis of HIV interventions for transport projects but one review of the construction industry in South Africa provides useful recommendations based on a package of eight workplace interventions for prevention, care, and treatment. The review concludes that because labor is such a small share of total project costs, the cost of HIV/AIDS interventions as a percentage of total project cost is proportionally smaller for large construction infrastructure projects (McGreevy, Alkenbrack, and Stover 2003). Specifically, with a 1 percent low prevalence rate, the cost of the eight interventions is 0.14 percent of the cost of a construction project greater than US\$5 million. With a high prevalence level of 10 percent of the workforce, the cost of the package of interventions would add 0.82 percent to total project costs and still fall below 1 percent of total project costs. As a result, these percentages are low enough to permit contractors to include the costs of such services among the indirect costs for worker injury protection, insurance and emergency care without substantially increasing total project costs.

To implement basic construction workplace prevention interventions only—without including any treatment interventions other than treatment of STIs, the same South Africa study reports a cost of \$3,900 per thousand workers when prevalence is only 1 percent of adults; in the high prevalence case, the cost of prevention alone is \$10,600 per thousand workers. The basic four prevention workplace activities included condom promotion and distribution, treatment of sexually transmitted infections; peer counseling on safe behavior; and voluntary counseling and testing (VCT) for those who seek it.

The costs identified for the various types of HIV prevention interventions can also be indicative of the costs needed to undertake HIV interventions within a transport project. Final costs will depend on each activity and on local circumstances. Table 5-1 highlights some of the costs associated with each possible HIV prevention activity in the sector.

Table 5-1. Examples of costs of HIV interventions		
Intervention	Unit cost	Notes
Behavioral change communication	Overall campaign cost \$25,803; or \$143 per bus per month, or \$4.8 per day (Evian et al. 1991).	Johannesburg Health Dept. AIDS awareness campaign through messages on city buses
Peer education	1. \$1,479 per trained peer health educator; \$125 per education session; \$5.60 per person educated in group sessions (Kumaranayake et al. 1998). 2. Cost per worker is \$31.36	1. These costs are for a CSW peer education project in Cameroon; 2. Construction worker education program in Ho Chi Minh City
Condom provision ⁷	Cost per male condom distributed low: \$0.10; moderate: \$0.25; high: \$0.40 (Stallworthy and Meekers 1998)	Cost levels for countries in Africa, Asia, Central America reflect how well established are social marketing programs
IDUs interventions	Cost per person reached \$1.19; cost per disposable syringe distributed: \$0.39 (Walker et al. 2003).	Cost study done in Belarus
STI/ STD treatment	1. Cost per STD treated: \$2.51 (Gilson et al. 1997); 2. The total cost per patient was \$11 when the clinic did not provide STD drugs; \$12 for special clinic-based services for women; \$11.50 for non-clinic-based services; and \$11 for the integrated STD/primary health care approach (Nyamuryekung'e et al. 1997)	1. Costs reflect management strategy for improving services to treat STIs in rural Mwanza, Tanzania; 2. STD component on the Tanzania-Zambia highway targeting
Voluntary counseling and testing (VCT)	\$4.40-\$28.93 per person (Walker et al. 2003)	VCT costs estimated from various developing countries' studies focused on reduction of mother-to-child transmission and include pre-test, post-test counseling and the test itself.

The amount of time and resources invested in the development of awareness campaign materials will influence costs. If materials used have already been produced elsewhere, these costs will likely be smaller.

Peer education interventions can be quite labor intensive but the potential benefits can be higher and the interventions are likely to be more cost-effective. Among variables that can affect costs are the amount of time invested in staff and peer educator training, the total number of workers targeted, whether peer educators are salaried or volunteered staff as well as the types of educational materials used during the training sessions (UNAIDS 2000).

Costs to provide condoms can also be very high and tend to decrease with economies of scale, the longer the project runs and the more sales take place leading to a decrease in unit costs over time. Start-up costs for condom social marketing projects are often also very high, given the need for market research and product development. Involvement of the private sector to take on these roles and reliance on existing distribution networks can reduce costs (UNAIDS 2000). An analysis of unit costs in selected condom social marketing programs over the period 1990-1996 shows that the cumulative cost per condom sold was \$0.09-0.14 in India, Pakistan, Bangladesh and Nigeria, all long-established family-planning-oriented social marketing programs in very large markets (Stallworthy and Meekers 1998). In countries with special circumstances such as pilot programs, programs in their first year, countries in civil war, and so on, the highest costs per condom sold was over \$0.44.

⁷ These average costs are taken from the study by Stallworthy and Meekers (1998), which reviewed condom sales for 23 social marketing programs implemented or affiliated by Population Services International (PSI), one of the organizations that pioneered international social marketing, during the period 1990-1996.

6. EXAMPLES OF SECTOR RESPONSE

The growing threat of HIV in the transport sector has triggered a number of prevention, surveillance and treatment activities to fight the epidemic, ranging from raising awareness about HIV, promoting condom use to encouraging testing. Mobility and behavioral surveys have also been done for a number of projects. Initiatives have been undertaken by the private sector, trade unions and international organizations such as UNAIDS, ILO and the International Organization for Migration. The examples discussed here are meant to highlight the wide range of responses and are not meant to constitute an exhaustive list. Additionally, none of the interventions discussed focus on providing workers and vulnerable groups with anti-retroviral medicine.

6.1. Behavioral surveillance surveys and mapping

Available and empirical evidence based on surveillance and monitoring surveys of high risk groups is particularly useful as reliable and up-to-date information about behavior patterns and trends in transport and ways in which behaviors might affect HIV transmission remains sporadic, hampering a detailed understanding of trends and presenting a major obstacle to designing prevention efforts.

The main objectives of behavioral surveillance surveys (BSS) is to help provide information to plan interventions; provide baseline data for the measurement of the impact of HIV prevention efforts; and to help establish monitoring systems that will track behavioral trend data for high risk and vulnerable target groups that can influence the evolution of the epidemic.

Interpretation of data gathered through HIV BSS goes beyond interpretation of data that is typically provided through HIV sentinel surveillance surveys. HIV sentinel surveillance, the traditional method for monitoring the evolution of country's HIV prevalence rates, is less precise in capturing immediate behavioral changes in populations' behavior, leading to gaps between the knowledge and sexual behaviors necessary to limit the spread of HIV. Changes in behavior take time to influence changes in prevalence rates and as a result HIV surveillance data cannot indicate whether prevention interventions are having their desired short-term effect of changing behaviors (FHI 2001; 2002; and 2003). Also, by repeating BSS, trends in behavioral change that lead to reduced HIV infection such as fewer sexual partners and increased condom use among non-regular partners can be captured.

A number of monitoring and surveillance studies of mobility patterns and behaviors of high risk groups such as transport workers have produced some useful data illustrating vulnerability in the transport sector and significantly contributed to the development and success of prevention programs. The NGO Family Health International (FHI) has undertaken several rounds of key behavioral surveillance studies in major border areas and truck stops of various countries such as Zambia (FHI 2003) India (FHI 2001) and Nepal (FHI 2002), targeting not just long distance truck drivers but also female sex workers. In India, monitoring of HIV prevention efforts have shown the effect on behavior of targeted and sustained programming: unprotected commercial sex encounters decreased dramatically among truck drivers and helpers and their partners from 1996 to 2001 (Claeson and Alexander 2008).

Another useful approach to respond to potential HIV transmission among high risk groups like transport workers is an 'Early Warning Response System'. The UNDP SEAHIV with South-East Asian nations (ASEAN) and China developed an Early Warning Response System (EWRRS) to capture early information on changes in socio-economic factors that make particular groups and locations vulnerable to HIV and also identify responses. The system has been developed through continuing participation of

stakeholders and has been implemented in various forms by Cambodia, China, Lao People's Democratic Republic and Vietnam.

Mapping assessments have been done to study linkages between population movements and the spread of HIV along transport corridors. Mapping exercises can also help identify successes and challenges faced in the various key areas of programs developed to reach transport workers and vulnerable groups (UNDP-SEAHIV 2000b; 2004). One assessment by the UNDP SEAHIV, using surveys, interviews and site visits to identify HIV vulnerability along Highway One and Highway Five of Cambodia as well as the location of various types of population movements along these highways. The study showed that while the local response to the HIV epidemic along the two highways was not well established, there were numerous factors which potentially can increase HIV vulnerability along the two highways and beyond (UNDP-SEAHIV 2000).

Similar mapping exercises have been undertaken using Geographic Information Systems (GIS), to provide detailed information about hot spots such as bar and lodging areas and about risk and health seeking behaviors of truckers. In 2004, a mapping project on Mombasa-Kampala Highway project funded by DFID through Futures Group Europe and the Canadian International Development Agency was able to identify through GIS the location of 39 hot spots in Kenya Northern Corridor with an estimated 5,600 female sex workers residing in hot spots. Key findings of this mapping exercise revealed that up to 10,000 new HIV cases might be occurring annually along the 'trucking corridor' through Kenya and Uganda, but fewer than 10 percent of the commercial sex workers and no transport workers are receiving information about HIV/AIDS. It was also estimated that if a program increased condom use along the highway to 90 percent, there would be a 55 percent decrease in over 1,230 new infections averted (Ferguson and Morris 2007).

6.2. Construction industry

A number of programs have been developed to mitigate the risk of HIV associated with construction in the transport industry. Targeting the construction industry can be especially important in areas undergoing significant development changes and periods of economic growth. In Indonesia, for example, ADB estimates that the construction industry grew 9 percent in 2007 and accounts for 5 percent of the labor force and 8.4 percent of the country's gross domestic product. According to ADB projections, by 2010, the number of HIV/AIDS cases in Indonesia will reach 400,000 and an expected 100,000 people will have died from complications associated with the disease.

Both governments and international development agencies have launched HIV awareness programs in the construction industry, ensuring availability of condoms as well as care and support services. In South Africa, research conducted by construction industry stakeholders and the South African Department of Public Works (DPW) indicated that the industry had the third highest incidence among economic sectors in that country (IOM and CARE International 2003). As a result, DPW launched a pilot project aimed at raising awareness about HIV, HIV/AIDS and STI testing and counseling, the creation of a non-discriminatory working environment, and referral systems for support and care. It is also anticipated that the HIV awareness activities will be mandatory for all contractors tendering for DPW contracts and that the procurement process will be amended to ensure enforcement of this requirement (IOM and CARE International 2003).

HIV programs in construction projects have often involved peer educators or 'focal point persons' to help provide HIV/AIDS information and education at construction sites. Peer educators typically volunteer to raise HIV awareness with limited funding and ensure that condoms are available, distribute information material to workers, and help foster an open and trusting environment for discussing AIDS in the workplace. In Ethiopia, 13 local construction companies in charge of building universities with more than 10,000 persons working at 15 sites throughout the country are involved in an HIV/AIDS workplace program. The project engages 600 construction workers across the construction sites to disseminate knowledge about HIV/AIDS with the help of a questionnaire developed jointly by DKT International and GTZ IS Ethiopia. The results will provide a foundation for an anti-HIV/AIDS campaign targeting the steadily growing construction sector. Other examples of peer education in workplace programs in construction sites include the rehabilitation of the Songwe-

Tunduma trunk road in Tanzania with support from the Tanzania National Roads Agency (TANROADS) and a construction site in Ho Chi Minh City in Vietnam (Population Council 2003).

Peer educators can successfully reach the numerous and mobile workforce employed on a construction project. Experience from South Africa has shown that the prevalence of subcontracting in the construction sector, particularly the tendency toward labor-only subcontracting increases the complexity of developing effective interventions due to the geographical remoteness of sites, constantly changing and complex activities on construction sites and the rapid turnover of employees who have different types of contract, contract duration, remuneration and benefits (IOM 2007). Peer education can also ensure that HIV education takes place when subcontracted employment contracts free the general contractor from various responsibilities toward workers' safety and health services and benefits. Finally, experience has shown that peer educators can be more effective at contacting workers at peer education sites and better at distributing condoms than health educators who typically visit workplaces and conduct HIV education activities (Population Council 2003).

However, peer education programs in construction sites can be difficult to implement, contractors may be reluctant to allocate enough time and resources for the peer educators to implement their activities. As a result, it might be necessary to ensure that tender documents include more specific requirements for HIV/AIDS peer education programs to be successful.

6.3. Road-side interventions for truckers

Reaching vulnerable mobile populations like truck drivers with health services including HIV testing can be challenging and require innovative strategies. Evidence from the various roadside health and information units that have been organized in several countries shows that it is essential that a range of basic health services in addition to VCT and HIV/STI prevention be provided to encourage participation of truckers. Formal health services typically fail to reach truckers and other transport workers due in large part to their mobility, which makes it hard for them to make clinic appointments and receive regular follow-up and results in them going long periods without treatment for sexually transmitted infections (STIs).

Roadside centers provide unique solutions to the problems and issues facing road transport workers—particularly truck drivers—such as difficult working hours and stigma. The idea for roadside health centers has evolved from various initiatives, including the 'Trucking against AIDS' launched in 1999 by the South African road freight industry with the support of Learning Clinic, a local NGO. In the context of the project, 10 roadside wellness centers housed in renovated shipping containers with two additional mobile roadside clinics have been set up. These centers are opened from 5 to 12pm at convenient times for truckers and are meant to provide resources on HIV/AIDS awareness education, primarily health care, STI treatment and condom distribution to truck drivers spending an overnight rest stop in town. These services were also made available to their occasional partners who are usually members of the community. In Bangladesh, ITF partners with CARE-Bangladesh set up a 45 drop-in centers nationwide with a system of social marketing of condoms through peer outreach workers and more than 200 depot holders (ITF 2006; ITF 2007). The establishment of these drop-in centers helped avoid stigmatization as workers can come to the centers to pass leisure time and meet friends but also receive information about safer sexual practices and the prevention of STIs while receiving general medical services.

Other innovative approaches for road transport workers include the development of 'smart cards' or 'health passports' and also on strengthening the quality of providers' networks along transport routes. In South Africa, the project 'Trucking against AIDS' helped develop a 'smart card' system that records driver's medical history so that drivers can visit any clinic in the project network of clinics and thereby have access to the services and treatment they may need. Condoms are distributed and drivers and commercial sex workers are encouraged to go for voluntary counseling and testing. The five-year Kavach trucking industry project of India's Transport Corporation launched in partnership with Avahan, India's AIDS Initiative funded by the Bill & Melinda Gates Foundation, has established a 'Gold Standard' benchmark in order to assess and maintain a minimum level of quality of interventions across all states targeted by the project. The program has established 17 intervention spots (Khushi

Clinics) along the Golden Quadrilateral national highway network, serving an average of 100 truckers a day. The Gold Standard benchmark aims to standardize the quality expectations of each intervention effort in the field. Scores are assigned to seven criteria including visibility, administration and finance and involvement of secondary stakeholders. The NGOs are rated on 135 marks across the 27 sub-parameters within these seven criteria and the rating is repeated every six months. This has proven to provide significant incentives on the part of NGOs for better performance. According to the survey conducted among 900 truckers to assess the impact of the interventions, over 80 percent of the respondents agreed that the campaign would persuade the truckers to use condoms, and that the campaign made a positive impact on their self-esteem.⁸

6.4. Regional approaches targeting migrant workers and mobility

The very nature of transport work would require that policies and programs be implemented across regions and countries. Regional studies have established that the movement of people is linked with the spread of HIV. Likewise, mobile populations, including migrant workers, are particularly vulnerable to HIV/AIDS. Apart from a lack of risk awareness on the migrants' part, lack of legal protection and access to health services in host countries, as well as social discrimination and marginalization have also constituted challenges to reduce HIV/AIDS vulnerability among migrants.

Several organizations and country governments are now involved in raising awareness and in carrying HIV prevention and access to care and support to migrant and mobile populations, including truckers and construction workers. In order to address HIV vulnerability of mobile workers across Southern Africa, the International Organization for Migration (IOM) has developed the partnership on HIV and Mobility in Southern Africa (PHAMSA), with aims to reduce HIV incidence and impact of AIDS among migrant and mobile workers and their families. PHAMSA's program seek to address both the individual risk factors of HIV infection as well as the structural and environmental factors that influence behavior. In West Africa, Population Services International (PSI) and other USAID-funded agencies initiated a regional intervention entitled *Prevention du SIDA sur les Axes Migratoires de l'Afrique de L'Ouest* (PSAMAO) to increase the dissemination of information on HIV/AIDS and to strengthen the availability and use of condoms within West and Central Africa (IOM 2005).

Subregional initiatives have also developed in Asia. In Southeast Asia, a regional task force on mobility and HIV/AIDS was created in order to provide programmatic responses and policy actions. From the mid to late 1990s, the UNDP South East Asia HIV and Development Programme (UNDP-SEAHIV) analyzed the roles of mobility systems and key sectors such as transport and construction as well as the critical role played by good governance in building HIV/AIDS resilience. The program cultivated partnerships among governments, civil society, research institutions and intergovernmental organizations and with the World Bank as part of the UNAIDS system in order to build an effective regional response. The UNDP program facilitated collaborative regional mobility strategies and joint action programs on the ASEAN Highway Network which comprises 55 Asian Highway routes among 32 member countries totaling approximately 87,500 miles or 140,000 km; and the signing of a Memorandum of Understanding between countries of the Greater Mekong Subregion and China. In the region, NGOs working in 11 countries have also created CARAM, the Coordination for Action Research on AIDS and Mobility, which has developed information, community-based interventions and advocacy for a number of groups of migrant workers, including transport workers.

Recognizing the threat that HIV poses to development and the expansion of international and regional trade, several organizations and countries have also started to harmonize and coordinate efforts to fight AIDS. Regional organizations such as the Southern Africa Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA) in Africa, the Association of Southeast Asian Nations (ASEAN) in ASIA and the Caribbean Community and Common Market (CARICOM) in Latin America have undertaken various HIV interventions through their efforts to promote economic integration and harmonization of transport procedures. Interventions from these organizations range from rapid assessments on HIV and mobility issues in their member states through providing funding

⁸This information is based on a phone discussion with TCI Foundation's Project Manager Tarun Vij. November 11, 2007.

for the implementation of national strategic plans with a focus on high impact interventions in selected vulnerable groups, particularly mobile and migrant populations.

6.5. Cross-border and corridor interventions

Several regional transport corridor initiatives have focused on HIV preventive, treatment, and care services for long-distance transport workers as well as migrant populations, commercial sex workers and local populations living along transport corridors. These cross-border initiatives have generally included the provision of condoms, the diagnosis and treatment of STIs and education and behavior campaigns. Large and complex cross-border initiatives such as the *Corridor of Hope* projects in Ethiopia and Djibouti and the *Corridors of Hope II* (COH II) project in Zambia have included many other activities in addition to these three components such as peer education meetings; health education campaigns; orientation for traditional healers; production of training manuals; provision of home-based care and psychological support; and mapping and BSSs surveys.

Corridor interventions are developed to support national HIV/AIDS strategic programs and to ensure coordination among various national stakeholders. Multi-sector/multi-country challenges can emerge with cross-border projects that involve various sectors and countries. Successful corridor projects such as Ethiopia's *Corridor of Hope* project and the World Bank *Abidjan-Lagos transport corridor* project have demonstrated that coordination among the various governments is needed to develop, coordinate and monitor corridor programs while ensuring sustainability. Likewise, coordination among the diverse service providers can ensure consistency in service provision. To make up for the lack of regional and institutional capacity to implement a corridor project, some corridor projects have established successful institutions. The creation of the Abidjan-Lagos Corridor Organization (ALCO) with representatives of heads of the national HIV/AIDS programs and the transport directors of each country provide an excellent example of how to implement elaborate HIV interventions in corridor projects, including the supervision of their implementation and liaison with national HIV/AIDS components and the coordination of the local HIV/AIDS response in border areas (World Bank 2008).

Developing synergies between national AIDS programs can be challenging, particularly in the areas of operational level harmonization of clinical aspects, referral system and communications strategy (World Bank 2008). In the context of strengthening health services, some of the measures that have contributed to improved coordination of services for the targeted populations for corridor projects have included the creation of common reference documents on care and access to STI/HIV/AIDS treatment; the creation of specific brands of condoms; and the development of medical waste management plan (World Bank 2008). The coordination of communications strategies for difficult to reach mobile populations like long distance truck drivers has proved successful through an integrated regional education and behavior communication strategy, including the use of radio station networks and the use of itinerant information campaigns (World Bank 2008).

Beyond coordination of HIV responses, some cross-border initiatives have begun to address transportation facilitation and border formality issues—such as time delays for commercial and passenger vehicles to clear border formalities along a corridor—thereby also reducing opportunities for drivers and passengers to engage in risky behavior conducive to contracting HIV. To facilitate trade and transport, The Abidjan-Lagos project established four inter-border facilitation committees along with information units where information on HIV/AIDS and border crossing formalities were distributed (World Bank 2008). Observatories were all installed at all borders to record the time required for drivers and passengers to clear border formalities and also help ALCO's management focus on areas requiring most attention.

6.6. Informal transport services

As they typically provide transportation services in town and outskirts of towns and cities to a broad range of customers, taxi and mini-bus drivers spend a considerable amount of time on the road and are often admired by the youth for their flashy clothes, ready cash and taste in contemporary music. At the same time, they have non-regular partners, meet with sex workers, and also interact with others - including tourists—putting everyone at an increased risk of infection. Although the frequency

of with which they use condoms is not exactly known, taxi and mini-bus drivers have been recruited to play a leading role in changing public perceptions about the disease and in fighting stigma and discrimination practices.

A number of activities undertaken by international organizations and local partners in Caribbean countries have focused on raising awareness and knowledge on STIs among taxi and mini-bus drivers, as they are considered to be at an elevated risk of HIV infection in the region and to constitute a bridge population in the transmission of HIV/AIDS. The UNICEF project in St. Lucia titled 'Ambassadors for healthy lifestyles in St. Lucia' Aims to increase knowledge on STIs and HIV among the 200 taxi and minibus drivers in cooperatives on the island while encouraging them to serve as examples of healthy lifestyles for young men

In the Middle East, taxi drivers have been identified as a high risk group in Djibouti as some engage in sexual activities with their clients when they are unable to pay the taxi fee. The Union of Taxi Drivers of Djibouti has begun to schedule ways of encouraging the use of condoms among drivers. Twice a week meetings have been organized during which peer educators go to various taxi stands to inform drivers about HIV/AIDS and to distribute condoms.

6.7. Interventions in the railway sector

While there is not much evidence on the incidence of HIV on railway workers, a number of projects targeting railways have taken place in several regions of the world, including West Africa, and countries, including Belarus, Mongolia, China, Myanmar, Zimbabwe and India. Recently, the Southern African Railways Association (SARA), an organization that includes 13 companies and organizations owning railway infrastructure and facilities in Southern Africa, has begun the process of developing and implementing a regional rail HIV/AIDS Strategic Framework and Program of action for 2007-2011.

Railroads and train travel offer unique opportunities to educate large moving populations about HIV. In China, with one billion passengers riding the country's vast railway system each year, it has been estimated that on average passengers will spend two hours in a station and twenty hours on a train. In a limited time, it is therefore possible to make HIV information accessible to vast numbers of individuals.

In 1995 the National Railways of Zimbabwe (NRZ) was already experiencing the rising incidence of HIV in terms of absenteeism, decreased productivity among its workers due to illness and increased medical costs caused by HIV/AIDS. The NRZ implemented a program targeting its highly mobile staff as well as management and some family members. The two year program, which cost USD 150,000, targeted railway employees and their families through a strong peer education program. The program exceeded all of its expected targets and 360 workforce staff members and included the printing of AIDS prevention slogan on all paychecks, the development of educational materials (booklets, posters, and banners) and improved STD diagnosis and treatment at company health clinics (FHI/AIDSCAP 1998).

The project Rail-Link (2002-2005), funded by Bristol Myers Squibb in partnership with Population Services International (PSI) and Family Health International (FHI), aimed to reduce the risk of vulnerability and marginalization experienced by mobile populations and their social networks along two major railroad lines in West Africa: one connecting Bamako, Mali, with Dakar, Senegal; the other connecting Ouagadougou, Burkina Faso, with Abidjan, Cote d'Ivoire. . It targeted about 2 million people and aimed to promote community-generated approaches to reducing HIV risks in and around railroad stations; to change behavior of mobile populations with respect to key risk factors for HIV transmission; and to reduce the prevalence of sexually transmitted infections (STIs) (CARE 2006).

Since 2002, an HIV campaign in railway trains and stations targets the large mobile populations of China. Education is underway in nine major transport hubs as part of a pilot effort started by the Ministry of Railways with support from the United Nations Population Fund. In addition to educating passengers through electronic boards and information materials, the Ministry hopes to protect the 2.2 million Chinese railway workers and their families and to expand the program to more of the country's 5,700 train stations. Station workers are in charge of distributing information brochures and in the

stations' clinic, health personnel provide counseling. Once a sensitive topic in China, condoms are also being promoted through vending machines and installed in station toilets.

A number of HIV/AIDS awareness campaigns and treatment policies in the railway industry have taken place in India. Indian Railways, along with UNIFEM and the UN Development Programme, NGOs, and India's National AIDS Control Organization (NACO), collaborated on an innovative AIDS awareness campaign between 2002 and 2006 targeting the 25,000 employees of its south-central branch, which is located in a region identified by NACO as having a high rate of HIV prevalence. Indian Railways provides an extensive infrastructure of housing, services and facilities for its staff, offering ideal channels for communication. It also offers 50 percent fare concessions to people living with HIV/AIDS in the country to facilitate their travel to the NACO's antiretroviral treatment centers, which offer subsidized treatment at 127 locations.

Still in India, the Red Ribbon Express, an exhibition on rail organized by the National AIDS Control Organisation (NACO), the Rajiv Gandhi Foundation and the Nehru Yuva Kendra (NYK) to create awareness of AIDS all over the country has ten coaches, of which five are open for public viewing. Three coaches have an exhibition on HIV, one for holding training sessions and the last one for providing voluntary testing and counseling to the public. The Red Ribbon Express is scheduled to stop at 180 stations throughout the country, including 19 in Tamil Nadu and will cover a distance of 9,000 km in all States. The exhibition will cover 50,000 villages and benefit 70 million people, including 10 million people in 5,000 villages in Tamil Nadu.

6.8. Prevention activities for seafarers and the maritime industry

It is often difficult to reach seafarers and workers in the maritime industry with HIV/AIDS prevention activities but specific programs and training tools have been developed. In the mid-1990s, research on the seafaring population in the Philippines supported by USAID's Asia and the Near East Bureau produced important information about factors that promote the spread of HIV in port cities in Asia and the Pacific, leading to the design of some of the first prevention projects in this area (AIDSCAP 1997). In Indonesia, a shipping company's management endorsed a comprehensive outreach HIV/AIDS intervention, enabling outreach teams to work with Thai fisherman and their Indonesian sex partners in the city of Merauke. In the Philippines, the Center for Multidisciplinary Studies on Health Development reached thousands of fishermen and their partners through interactive group sessions.

In the late 1990s, the Joint Seafarers' Initiative was established by the UNAIDS Regional Task Force on Mobile Populations to identify new strategies and entry points for work with seafarers that respond to the reality of their mobility, life patterns and social networks. Through this initiative, UN agencies—with UNICEF taking a prominent role—government agencies, NGOs community organizations and the private sector have designed collaborative national and cross-border action plans as well as developed project and services targeting seafarers and seafaring communities in countries such as Thailand, Myanmar. A rapid assessment of seafarer's vulnerability in the Mekong subregion was done to better understand seafarer's routes, schedules and ports of call; their risks behavior while on shore; HIV/AIDS awareness among seafarers, their families, sexual partners, and social/ professional networks; and where seafarers seek health information and care.

More recently, through the International Committee on Seafarers Welfare (ICSW), the International Transport Workers Federation (ITF) has invested \$894,000 for a three-year health promotion campaign titled 'Seafarers' Health Information Programme (SHIP).'⁹ Projects supported by the program include the construction of the first seafarers' center in the Caspian Sea, four centers in Africa, and a center in Murmansk, Russia. Support is also given for seafarers' missions in Indonesia, the Philippines and Italy. Among the core health topics covered, SHIP seeks to get messages about HIV transmission and prevention to seafarers. Information is disseminated to seafarers on board ships and ashore through videos, DVDs, comic books, posters and stickers. The program uses the resources of the global network of seafarers' centres and welfare agencies to get its health messages across.

⁹ Information about SHIP can be found through the program website: <http://www.seafarershealth.org>.

The Transport and Tourism Division of UNESCAP, in collaboration with UNDP SEAHIV, UNAIDS and the Singapore Maritime Academy, has developed a Computer Based Training (CBT) Programme on HIV/AIDS 'Be Safe Not Sorry.' This is because the Asia and Pacific region is home to more than 60 per cent of the world's seafarers. As mobile workers, they encounter unique challenges to maintaining a healthy and productive work-life. One of these challenges concerns HIV/AIDS. The on-line course is intended to be used in both at training institutes and on-board ship as part of workplace policies. Both the Philippines (with the largest number of internationally registered seafarers) and the Chinese Maritime Associations have translated the CBT course for wider dissemination and use in the country.

Partnership between the government and the private manning companies in the Philippines have also given good prospects for instituting programs in HIV/AIDS and STD prevention in the Philippines maritime industry. The pre-departure orientation seminar (PDOS) which all of the seafarers attend is institutionalized in every manning/shipping company as part of the government's requirement for overseas deployment of manpower. A review of the seminar has shown that health topics do not focus enough on HIV/AIDS/STIs among seafarers. It is envisioned that the curriculum of the seminar could be strengthened to include more focused and appropriate IEC materials and provide a good entry point for brining HIV awareness to seafarers in the country.

6.9. Initiatives that target women

Counseling and treatment services offered to transport workers have also benefited sex workers and other sex partners of transport workers through STI awareness and education campaigns supplemented with condom distribution. In the context of 'Trucking against AIDS' in India, sex workers and truckers' other sex partners have been welcome to visit the roadside wellness Clinics for awareness, education and health-care programs. Women's workshops have been conducted during the day when truckers are unlikely to be attending the clinics.

It can be difficult to reach the regular partners of mobile men when they do not live at the men's place of employment or along the transportation routes. For example, AIDSCAP-supported research conducted by the Indian Institute of Health Management Research in the Jaipur region of India successfully engaged truck drivers and their wives in a dialogue about HIV/AIDS and other STIs, which resulted in a greater awareness about the epidemic and an increased willingness among participants to discuss sexual matters with their spouses. The study results will be used to design an education and counseling intervention that will target both groups.

In 1993, an AIDSCAP supported study conducted by the African Medical and Research Association identified the most acceptable and cost effective ways to provide confidential STD services to women living along the Tanzania-Zambia truck route. Over a period of one year, four different approaches for delivering STD services were evaluated with 1,330 women at seven truck stops participating in the evaluation study. The approaches included special STD services offered twice a week at a site and at hours of the women's choice; special outreach services once every three months; or STD services integrated into the nearest Primary Health Clinic. Drugs were provided at three of the four interventions. The women were generally satisfied with all approaches that included the provision of drugs. The most expensive and ineffective way of treating STD was by not providing drugs. Attendance per woman was higher when services were outside a health facility or at times other than normal clinic hours than when STD services were integrates with primary health care (Nyamuryekum'g'e et al 1997).

Few HIV initiatives in transport have involved the wives of transport workers as important partners, thereby also ensuring the sustainability of these initiatives. Some unique initiatives have been led by the International Transport Workers' Federation (ITF) and have included the involvement of wives of truck drivers in HIV awareness training and access to Voluntary Counseling and Testing (VCT). In Rwanda, truck drivers' union of Rwanda (ACPLRWA), with the support of the Canadian Embassy, organized a four-day HIV/AIDS workshop for the wives of truck drivers. The participants realized how happy they were that the union had realized the importance of involving the partners of the truck drivers in this training, especially in light of the fact that they do not usually speak to their husbands about AIDS (ITF 2003). Since then, the trained truckers' wives have decided to set up their own

women's association as part of the ACPLRWA, in which they discuss their own and their husband's vulnerability, and plan for suitable strategies.

In India, a couple of initiatives have demonstrated some of the benefits as well as difficulties in facilitating communications on HIV between truckers and their wives. The Bhoruka AIDS Prevention project sought to involve truckers' wives as important partners in HIV awareness activities while providing skills to truckers' spouses through training sessions and to train peer educators. Groups of women were trained in twice monthly sessions to discuss sex, sexuality, STIs, HIV and AIDS. At the end of each session, the truckers' wives were given a question or an issue to discuss with their husbands and the most pro-active women in the group were chosen as peer educators to ensure sustainability of the project (IMO 2005b). It has also been reported that while wives have substantially improved their HIV knowledge through these training interactions, dialogue between wives and their trucker husbands has remained difficult as their husbands were on the road most of the times (Bhoruka 2004).

Under the guidance of the Railway Women's Empowerment and AIDS Prevention Society, peer counselors trained by experienced non-governmental groups now circulate within the railway communities, building relationships of trust and offering gender-sensitive messages on prevention, care and treatment. They go to schools, women's community meetings, trade union gatherings and the 'running rooms' where engine drivers rest between their shifts. A 24-hour telephone helpline answers questions, and a new railway policy ensures that all employees and their families who require antiretroviral drugs can have them free of charge. For women directly affected by HIV/AIDS, who are often part of families that have gone deeply into debt to cope with the disease, a revolving fund based in the South Central Railways Women's Welfare Organization offers loans for medical, legal and other essential expenses. The Railways also offers employment to widows of staff who have died of AIDS, a measure that is reducing stigma and discrimination (UNIFEM 2006). Discussions are under way to replicate the successful approach with the Chinese Railways.

7. WORLD BANK RESPONSE

Since the 1980s, and increasingly during the past decade, the World Bank has launched efforts to prevent HIV/AIDS and to mitigate the epidemic's impact, primarily through participating in global programs, financing analytical work, engaging in policy dialogue, and providing loans, credits and grants for HIV/AIDS projects. The Bank has implemented several HIV/AIDS projects that have included prevention activities implemented by NGOs and governments, services for AIDS patients, and institutional development and monitoring and evaluation.

The transport sector has been part of the Bank multi-sector AIDS effort for nearly a decade. It is in Africa—the region most severely affected by the epidemic—where the sector first responded in innovative ways to the multiple challenges brought by the epidemic. Regional experiences have partly evolved according to the varying stages of the epidemics. Projects have included the following components: prevention interventions such as IEC in retrofitting and construction projects as well as in corridor projects. Research and capacity building activities have included regular training events to increase staff awareness and knowledge about HIV; highly visible events during Bank sponsored World AIDS Days events, and a website through which staff and clients can access research materials and related resources.

7.1. HIV clauses for standard bidding documents

The World Bank has provisions for HIV/AIDS mitigation in its standard bidding documents for procurement of works in excess of US\$10 million. In addition to general worker safety requirements, the 'Health and Safety' clauses (Section 6.7) in the General Conditions of Contract of the World Bank procurement includes a model clause to institute HIV/AIDS awareness program via an approved service provider such as an NGO, a health provider or a government body (Box 7-1). This signifies that all the contractors working on large World Bank transport projects are required to implement HIV/AIDS programs comprising of prevention, and awareness raising for their employees, sub-contractors, consultants, truck drivers and delivery crew as well as local communities in the proximity of the project site and that a non-discriminatory policy be followed towards people found to be HIV/AIDS positive.

Box 7-1. Standard Bidding Document for Procurement of Works, March 2007

Section VII General Conditions

6.7 Health and Safety clause on HIV/AIDS prevention

The contractor shall conduct an HIV-AIDS awareness program via an approved service provider, and shall undertake measures specified in this contract to reduce the risk of HIV transmission between and among the contractor personnel and the local community, to promote early diagnosis and to assist affected individuals.

The contractor shall throughout the contract: (i) conduct Information, Education and Consultation Communication (IEC) campaigns, addressed to all the site staff and labor (including all the contractor's employees, all sub-contractors and consultants employees, and all truck drivers and crew making deliveries to the site for construction activities) and to the immediate local communities concerning the risks, dangers and impact of STIs and HIV/AIDS in particular; (ii) provide male or female condoms; (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program.

For each component, the program shall detail the resources to be provided or utilized and also include provision of detailed cost estimate.

Source: adapted from the Standard Bidding Document for Procurement of Works, March 2007

Two possible options exist for providing HIV prevention activities to the workers: either the contractor is paid to provide the services, usually sub-contracting to effective NGOs with expertise in this area; or donors and governments can provide the services directly or also sub-contracting to local NGOs.

7.2. Joint Initiative to Fight AIDS in the Infrastructure Sectors

As a result of increased need for HIV/AIDS intervention in the infrastructure construction projects, the World Bank along with other five development agencies (Asian Development Bank, African Development Bank, Japan Bank of International Cooperation, DFID, KfW) signed a joint initiative to address the issues of HIV/AIDS in infrastructure during the 7th International Congress on HIV/AIDS in Asia and Pacific (ICAAP) convened in Toronto, Canada, on August 14, 2006. The Joint Initiative seeks to harmonize effort and create a forum to learn from good practices among the participants on how to best combat HIV/AIDS in the infrastructure projects including transport projects.

Through the signing of the Initiative, partner agencies have agreed to 'coordinate their activities in order to mainstream HIV/AIDS prevention and treatment programs in infrastructure sectors, to reduce the impacts of HIV/AIDS as a result of infrastructure interventions; to take opportunities for implementing further countermeasures against HIV/AIDS; and to contribute to strengthening the HIV/AIDS strategies of partner countries.' Agencies have also emphasized their endorsement of the ILO Code of Practice for Addressing HIV/AIDS, and are encouraging their funding recipients to 'incorporate HIV/AIDS programs into infrastructure support, especially where this involves (i) large-scale construction projects which mobilize many construction workers who could be vulnerable to HIV/AIDS, or (ii) increased long-distance transport activity which may facilitate the spread of HIV infection.'

A year later, the Joint Initiative was revisited at a High-Level Meeting during the 8th International Congress on AIDS in Asia and the Pacific. Key stakeholders from governments and development agencies identified concrete ways to operationalize the Joint Initiative, which include: (i) developing a minimum standard package and a common monitoring and evaluation framework for HIV prevention interventions in infrastructure projects and (ii) establishing a regular mechanism for information exchange among development agencies.¹⁰

Through videoconferences organized between March and May 2008, the Joint Initiative partners exchanged information and practical experiences in order to sustain momentum for continued collaboration.¹¹ The discussions included how each partner had mainstreamed HIV/AIDS in infrastructure sectors in the past, what challenges have been encountered and possibilities to capitalize upon synergies and scale-up operations. Although the focus of the Joint Initiative is on infrastructure in general, the focus of the dialogues has been in the transport sector in particular.

Efforts among all agencies for fighting AIDS in transport have focused on vulnerability reduction rather than impact mitigation. A number of common challenges were identified such as the need to identify good practices in this area; lack of clearly defined role for each stakeholder; precarious funding; insufficient expertise and the need to enhance local capacity building for monitoring and evaluation of projects, particularly the ones addressing the risks of mobile populations.

It was acknowledged that implementation of the Joint Initiative is challenging owing to the lack of standardized process for designing HIV activities and for monitoring and evaluating interventions. It was agreed that harmonization of approaches should take place, with a minimum package of HIV/AIDS activities and simple yet standardized monitoring and evaluation tools and mechanisms. Harmonization would help reduce costs by helping redundancy and duplication of effort; co-financing efforts; and co-training of staff, NGOs, private sector, and contractors. A quick portfolio review of partner transport projects with HIV components has shown where partners could begin to jointly cooperate in projects.

¹⁰ Co-organized by ADB and UNDP. Pre-Conference High Level Meeting entitled *Infrastructure, Mobility and AIDS: from Commitment to Action* held in Colombo, Sri Lanka on 19 August 2007.

¹¹ The *Joint Initiative* video conferences were organized by The World Bank. Presentations and summary reports of the video conferences are available online: <http://go.worldbank.org/31S4QPELWO>

7.3. Sub-Saharan Africa

The sector first responded to the challenges brought by the epidemic in the Africa region, where prevalence is most severe than anywhere else in the world. This was done through the Multi-Country HIV/AIDS Program for Africa (MAP) and with the help of the multisectoral AIDS Campaign Team, ACTAfrica, which provided operational support in all sectors.

Since 2000, the Africa Region Transport Group (AFTTR) has worked to include HIV measures in its road operations to address the impact of increased mobility and discourage risky behaviors of passengers and operators across borders. The Africa team was also the first one to include HIV/AIDS mitigation provisions within standard clauses for works contracts. Partly due to efforts in this region and the innovative work of transport projects and from the UNAIDS partnership, the the World Bank standard bidding documents now include clauses that require contractors to implement awareness-raising and other prevention measures among the workforce. Other achievements include the organization of regional workshops to elaborate policies; helping client countries to better define their sectoral HIV strategy; and building partnership with various stakeholders such as national road authorities and civil society organizations.

In 2007, the region assessed the results of its mainstreaming efforts by surveying the portfolio of transport projects with HIV components. A total of 25 projects have incorporated HIV activities out of portfolio of 39 projects (World Bank 2008c). The main HIV interventions in projects have included: the appointment of an HIV/AIDS focal point; hiring a consultant or NGO for technical implementation of HIV/AIDS activities; IEC/BCC interventions; and distribution and promotion of condoms.

A pamphlet was also produced to address Bank clients' requests for assistance in implementing the contract clauses during the project cycle. The pamphlet is organized in a question and answer format and aims to provide information for all stakeholders in charge of implementing HIV/AIDS clauses in transport projects and at the various steps of the project cycle.

The Ethiopia Road Sector Development Project

The Ethiopia Road Sector Development Project (RSDP), implemented by Ethiopian Roads Agency, was the first transport project to include HIV/AIDS prevention clauses in its works contracts. The work started in 1998, and it took three years to mainstream HIV/AIDS prevention and control activities within ERA and in the RSDP construction projects. The project team encountered multiple obstacles in implementing HIV/AIDS programs because the issues surrounding sex and STIs were considered as taboo, and awareness within the ERA staff about HIV/AIDS was very low. The Bank team assisted the ERA to apply for funds from the Ethiopian MAP to be used for raising awareness and preparing a prevention strategy. In July 2004, the ERA completed the HIV/AIDS strategy and policy documents, established a VCT service within the ERA headquarters' health clinic, and organized a workshop in partnership with the Bank for helping five eastern and southern African countries to prepare transport HIV/AIDS prevention and control strategies.

Abidjan-Lagos Transport Corridor Project

The Abidjan-Lagos transport corridor is the major east-west transport corridor in West Africa, connecting the capital cities of five countries (Cote d'Ivoire, Ghana, Togo, Benin and Nigeria). The travel along the corridor is recognized as critical to the socio-economic development of the region, but it also offers opportunities for fast transmission of communicative diseases including HIV/AIDS. The corridor project was formally launched in December 2003, funded through an IDA grant of US\$16.6 million. The objective was to increase access along the corridor to HIV/AIDS prevention, basic treatment, and support and care services by underserved vulnerable groups. In order to carry out the project, a decision was made to create a new, single purpose organization, Abidjan-Lagos Corridor Organization (ALCO), and came into legal effect as a treaty organization on behalf of the members in August 2004. The project had three components: HIV/AIDS prevention services for targeted groups; HIV/AIDS treatment, care and support services for targeted groups; and project coordination, capacity building and policy development. Specific activities include implementation of IEC/BCC policy along the corridor, social marketing of condoms, strengthening of health care facilities, provision of grants to civil society organizations for community-based initiatives and disposal of medical waste related to the project. Discussion paper on the experience of the project, 'Lessons Learned to Date from HIV/AIDS Transport Corridor Projects', was published in August 2005.

7.4. South Asia

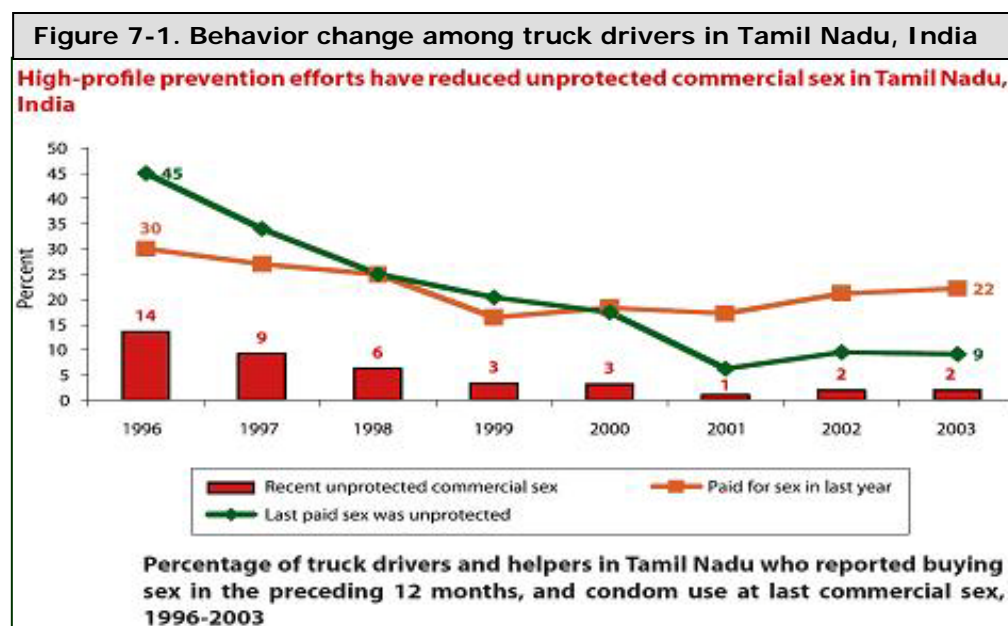
In 2005, the World Bank South Asia Vice-Presidency made a commitment to support multi-sectoral responses for tackling HIV/AIDS, with the Transport Sector playing an integral part in these responses. The South Asia team working on mainstreaming HIV/AIDS in transport operations includes the full-time support of a coordinator and a designated HD counterpart.

The South Asia Transport group in the World Bank screens all new transport projects under preparation to determine the feasibility of HIV/AIDS programs in the project design. It also provides seed money to clients for HIV prevention and monitors program impacts.

HIV activities in transport in the South Asia region focus on raising awareness and prevention of the spread of the disease in areas close to improved roads. HIV/AIDS awareness campaigns are being implemented in three projects in India (Punjab State Road Sector Project, Himachal Pradesh, Mizoram State Roads). Training programs are also planned in Sri-Lanka Road Sector Assistance Project. In addition, information and awareness campaigns are being prepared in various projects in Bhutan, Nepal and India.

Clauses in the contractors' contracts ensure that HIV prevention takes place during construction. A consultant has been recruited and based in Delhi to strengthen capacity of World Bank teams to monitor implementation of these activities and to develop HIV/AIDS components during preparation of transport projects, and a staff with expertise in mainstreaming HIV is to work with project teams in Pakistan and Bangladesh to help prepare new HIV/AIDS components in transport projects.

Monitoring and evaluation is being strengthened to better measure the impact on behavior change and not just on outputs. A database of information on HIV/AIDS and transport for the region has been created. An example of the type of monitoring done in the region has focused on the effect on behavior of targeted and sustained programming in the state of Tamil Nadu in India. HIV prevention started in 1994 with the help of the Bill & Melinda Gates Foundation's India AIDS Initiative and gradually increased and was sustained over the next decade (Claeson and Alexander 2008). Unprotected commercial sex encounters declined dramatically among truck drivers and helpers and their partners from 1996 to 2001. Since 2001, truck drivers and helpers reported condom use at about 90 percent, at the same time that there has been a slight increase in their reported contact with female sex workers (Figure 7-1).



Source: Claeson and Alexander 2008.

7.5. East Asia and the Pacific

A regional AIDS strategy was developed in East Asia and the Pacific to ensure that all projects include sound HIV interventions (standardized materials, etc that can be adapted, lessons learned). Activities have taken place in Cambodia, China and Papua New Guinea. Lack of funding has prevented the strategy from being expanded, resulting in about 20 percent of EAP transport projects to have formal HIV/AIDS education programs in place. Implemented intervention programs have included Information and Education Campaign (IEC), condom distribution and VCT services aimed at the employees on the construction sites in three transport projects in China, funded by Global HIV/AIDS program and grants from other sources. Survey conducted among the construction workers in Hubei Shiman Expressway Project revealed that 99 percent of them were male under age 40 with middle school education who stay away from family for more than 300 days a year. The implementation of innovative IEC campaign and condom distribution produced some positive results including increased awareness and condom use among the migrant workers and local residents. The region also sponsored a seminar on HIV/AIDS with a view to raising awareness among Chinese government officials and transportation and health professionals.

The region also modified the standard bidding contract clauses which specify funding options and detailed requirements for contractors to include HIV/AIDS activities in their work. The region also developed standard IEC campaign materials to be used in transport projects with recommended IEC materials¹². The primary aim of this activity is to deliver effective HIV/AIDS IEC campaigns to construction workers, local residents and others at risk of infection as a result of the Bank's civil work activities. The goal is to have an IEC campaign which can be used –with refinement and customizing- in different projects in the Bank's client countries, with ease by the various TTLs and implementers.

The 2005 Northern Economic Corridor project in Cambodia includes a rapid assessment component that provides information, education, and communications materials to contractors' employees and local communities along the roads under construction. The project includes a preventive education program for HIV/AIDS, drug use and trafficking of women and children in the context of road construction and, an upgrade of the existing road between China and Thailand (via Lao PDR) which is implemented by the Lao Red Cross through the National and Provincial Committees for the Control of AIDS bureaus. The NGO Population Services International (PSI) will address the demand for IEC materials and condoms in the long term.

7.6. Latin America and the Caribbean

The Latin America and Caribbean transport group has prepared a strategy note on how to address HIV/AIDS in the Transport Sector in the region, addressing high HIV vulnerability in international corridors such as in Central America and the Southern Cone and related to three main transport activities (transport corridors, maritime transport and city port development, and road construction and rehabilitation projects). These are identified as entry points where the Bank is most likely to be called upon to help design a response at the project level.

Two transport projects in the region (in Haiti and Brazil) already include HIV prevention interventions. In Haiti, where HIV prevalence is high, a transport and territorial development project will include within its safeguards-related investments-a component that will be designed in partnership with UNAIDS and will primarily focused on preventive measures with information and education activities on STDIHIV transmission risks, particularly for truck drivers. A study conducted among three target groups (truck drivers, women between 15-49 years of age, and female commercial sex workers) around the road projects revealed gaps between the sexual practices and knowledge about HIV transmission. There appears to be misconceptions about transmission risks, primarily related to voodoo beliefs, cultural norms and stigma. Likewise, knowledge about and practice of condom use is not regular. Differences were also noted between the two zone areas of the road project, with the most economically developed area having higher levels of stigma, lower STI prevalence and higher levels of condom use.

¹² The Road to Good Health Toolkit can be downloaded at: <http://www.theroadtogoodhealth.org>

In Argentina, a study focused on improving understanding on the role of the trucking industry as a vector for HIV/AIDS transmission in LAC and to develop a program that will contribute to mitigating the spread of the epidemic within the industry, across selected transport corridors in LAC and among vulnerable populations near the corridors.

The transport sector in the region also helped prepare and supports implementation of a component to prevent HIV among mobile populations within the Central America HIV/AIDS Project. Under the premise that the highest rates of HIV vulnerability can be traced to the main transport corridors, especially those interconnecting different countries, this regional project includes a component called 'Prevention immobile Populations' targeting vulnerable mobile populations (including commercial vehicle drivers, truckers, seasonal mobile workers, commercial sex workers, and migrants) as well as high-risk geographical areas, such as border crossings.

7.7. Eastern Europe and Central Asia

Two key studies linking the transport sector with HIV transmission have been carried out in the Eastern Europe and Central Asia region. A study, perhaps the first of its kind in the region, explored the practice of casual sex among truck drivers and commercial sex workers in the border areas of the Baltic region and extrapolated the potential impact on the spread of HIV/AIDS in these countries (Godinho et al. 2005). The review found that truckers often engage with multiple sex partners on the road with little awareness of the risks involved. The region is experiencing a dramatic increase in the volume of cross border traffic due to transport network development under economic integration, and this is creating more opportunities for interaction and casual encounters among people. The report concluded that four countries – Poland, Latvia, Lithuania and Estonia – are particularly at risk due to the high prevalence rate in the neighboring countries, and their geographical location at the cross roads of the main east-west and north-south transport corridors.

A recent survey of knowledge, attitudes, and behavior related to HIV/AIDS among Transport Sector Workers in Georgia has identified the unique needs of transport sector workers with respect to HIV (World Bank 2008). It has produced information that can be used to develop specific strategies and targeted interventions for both the health and the transport sectors. Overall, the study revealed that HIV/AIDS awareness is high but that knowledge on transmission and prevention varies. A key finding is that HIV risk among transport worker is more likely through sexual transmission than through intravenous drug use. This finding is important for the region as it has previously reported that the epidemic is not spread by the transport sector in the region but primarily through shared needles among injecting drug users.

7.8. Middle East and North Africa

Low HIV prevalence in the Middle East & North Africa (MENA) region has coincided with few interventions to fight HIV in the transport sector. In 2005, the region launched its HIV/AIDS Strategy titled 'Preventing HIV/AIDS in the Middle East and North Africa Region: A Window of Opportunity to Act' to support multisectoral activities to tackle the epidemic. The strategy has helped raise awareness of the issue of HIV/AIDS in the region and led to a number of HIV mitigation activities.

The International Road Corridor Rehabilitation project in Djibouti is the only transport project in the region with an HIV/AIDS component that examines the potential of increased transmission of HIV/AIDS in the trucking industry and at construction sites, and explores mechanisms of cooperation to prevent such risks.

The Addis-Djibouti trade corridor is a 850 km two-way stretch corridor with more than 27 towns or rest stops and about 4000 truckers and assistants that travel along the corridor daily. The Port of Djibouti is also located at one of the busiest shipping routes in the world, linking Europe, the Far East, Africa and the Persian Gulf. Save the Children with financial assistance from USAID conducted a survey to assess the knowledge, attitudes and practices of truckers and villagers along the corridor.

At inception of the project in 2000, Ethiopia had a national prevalence rate of 6.6 percent in the adult population and an estimated 13.7 percent in the urban population. Specific targets of the project

included a 50 persons in high-risk groups will have used a condom during their last non-union sexual encounter (baseline was 20 percent); and 85 percent of the vulnerable group population will have been reached through IEC communication for behavior change programs.

Project activities aimed to increase demand for HIV/AIDS related services along the Ethiopia-Djibouti's corridor through the use of field communicators and the distribution of materials such as flyers, stickers, booklets, T-shirts and song cassettes. Condoms were also distributed to prevent the spread of the diseases while 19 voluntary counseling and testing centers were created and 25 information centers were set up.

The project has shown some good results in the raising awareness among the high-risk groups, particularly dockers and in increasing condom use acceptance among commercial sex workers. However, more prevention activities would be needed to increase condom use and VCT use.

8. IMPLEMENTATION CHALLENGES FOR MAINSTREAMING HIV/AIDS IN TRANSPORT

Despite the good progress made in mainstreaming HIV/AIDS in transport projects, several institutional and operational constraints remain. Some of the challenges identified here are reflections based on the experience gained through World Bank projects, the review of interventions by key stakeholders and through a series of dialogues with the development partners of the Joint Initiative to Fight AIDS in the Infrastructure Sectors.

8.1. World Bank HIV procurement clauses

The May 2007 edition of the Bank's standard bidding documents (May, 2007) section 6.7 'Health and Safety' require contractors to establish HIV/AIDS prevention and awareness programs via an approved service provider such as an NGO, a health provider or a government body for contracts over USD10 million.

While these clauses are required to be included in World Bank construction contracts, agreement made between the client government and the contractor to mitigate HIV risks may not be enforced by the contractor. In fact, there is no enforcement mechanism in place beyond the supervision process that a TTL has to do as part of general project supervision. As a result, the enforcement of the clauses rests on TTL's willingness to enforce the clauses. This is even more of a challenge for small civil works projects as clauses are only mandatory for large projects only, with budget greater than \$10 million.

Another main challenge rests in implementing the clauses once they have been incorporated in a contract. The contractor may not have the knowledge or capacity to undertake HIV prevention activities to fulfill the clause requirements. To facilitate implementation of the clauses, TTLs and contractors need guidelines about how to implement the various types of HIV interventions such as education and behavioral campaigns, condom distribution. Contractors would also need guidance and support on how to access existing local resources such as health and STI service providers and VCT services. In addition to the guidelines provided in this paper, HIV transport regional focal points at the Bank have begun to develop a number of tools that can help implement the clauses and other HIV interventions in transport projects (Annex 1, Education campaigns and Contract clauses for construction contractors).

An upcoming evaluation of the use of HIV/AIDS clauses embedded in World Bank standard bidding documents is likely to shed more light on the degree of compliance by projects to the clause requirements while hopefully offering further solutions on how to remediate to some of the existing implementation challenges.¹³

8.2. Funding and sustainability

Another key challenge related to the issue of enforcement of the contract clauses is the lack of funding for HIV activities in transport. Operational experience shows that governments and construction companies have tended to be receptive to the inclusion of HIV/AIDS prevention programs to protect their workers. However, the majority of HIV activities have been funded by grants as government

¹³ In the context of the planned the World Bank HIV transport activities for CY08&CY09, with the support of UBW funding through the HIV Transport Incentive TF, an assessment of the transport sector portfolio (starting in FY2000) is being planned to quantify the extent of the use of HIV/AIDS clauses embedded in the World Bank Standard Bidding documents in order to document and analyze the experience of the use of the clauses to date. The assessment will help draw lessons learned in order to improve and expand the application of the clauses in future projects.

clients are typically not supportive of paying for such activities through loans. Task managers themselves can perceive HIV prevention as costly or not important, especially in areas with low HIV prevalence. It may not be clear or easy for transport managers and staff to find the appropriate financial mechanisms to fund an HIV component. There can be reluctance from country clients to borrow and do HIV prevention as part of an infrastructure project. Difficult experiences have been reported during some project preparations where ministries of finance were very reticent to allocate resources to support HIV/AIDS component in transport projects. Companies and governments can also be reluctant to continue prevention programs after a project is completed, much less to extend health assistance to the community itself.

Permanent resources for HIV prevention would be needed from client countries' budget to sustain the achievements made in some countries and at regional levels, particularly in generalized or concentrated epidemic contexts. There has been positive experience in Bank projects where governments were not responsive in the beginning but agreeable on principle to do HIV mitigation and then followed-up by sustaining the activities once they understood the importance and success of Bank-funded activities. Experience from South Asia and the Shiman Highway IEC campaign activities in China show that client countries should not be pushed but tend to be quite receptive and even willing to expand and upscale initiatives. Likewise, sensitizing transport engineers and staff about HIV transmission risks could lead to a greater understanding about the various mechanisms and tools available for incorporating HIV mitigation into their projects.

It should be investigated whether the fight against HIV/AIDS and its related activities in the sector should be better acknowledged as part of the sector business strategy. In this context, greater support from task team leaders and managers would likely put greater emphasis on the need to convince client countries and the donor community as well about the importance of such activities in the sector.

8.3. Institutional and local capacity building

Various dimensions of capacity building play an important role in the context of mainstreaming HIV/AIDS within the transport sector. At the regional and national level, capacity building can be needed due to cross-border mobility and reluctance on the part of national governments to invest in projects which benefit non-constituents. Capacity at this level is needed where none previously exists – an example is the creation of Abidjan Lagos Corridor Organization (ALCO) in the Abidjan-Lagos Corridor project. Limited harmonization of migration and customs protocols along the corridor led to continued delays at borders. Likewise, lack of sectoral HIV policy and minimal access to health preventive services or treatment for HIV infected drivers traveling in countries other than their own was a serious problem. ALCO made up for the lack of regional and institutional capacity to implement the project and ensured sustainable implementation of policies across countries and sectors.

Within the majority of transport projects, there will likely be no capacity for providing health services, counseling or treatment as these aspects require substantial technical and financial resources. Instead, links between a transport project and government hospitals, health centers or VCTs should be established so that target groups obtain treatment and counseling at existing specialized facilities.

Capacity at the local level is also needed for supervision and to ensure the sustainability of initiatives once a project is completed. It is important to assess the role and service capacity of local implementation organizations such as NGOs in order to determine which HIV/AIDS services and prevention activities are currently offered within the community and what the capacity and staff training needs are.

Finally, capacity among transport workers, engineers and administrative staff should be developed across the various transport sub-sectors and include training sessions to sensitize staff about issues related to HIV/AIDS. This should also help ensure staff participation and cooperation in future AIDS program activities. An example is the support provided by the Environmental Monitoring and Safety Branch in the HIV/AIDS control and prevention program of the Road Sector in Ethiopia.

8.4. Monitoring and evaluation

A main challenge rests in assessing the effectiveness of HIV interventions in transport projects. First, it is often challenging to track HIV prevalence data in the populations that are mobile and fluid. Second, there is little information available linking programs in the transport sector with reduced prevalence or spread of HIV. Overall, the impact of transport on raising HIV incidence in communities near transport hubs or through the opening of new roads on transmission of the disease needs to be better understood.

M&E indicators should be developed with support from behavioral surveillance studies (BSS) and capacity of national governments to monitor the effectiveness of HIV activities should be improved. Continuous monitoring and evaluation is part of good program management. Monitoring behavior change requires access to data on knowledge, attitudes and practices regarding HIV/AIDS. The M&E team or focal point for monitoring activities should also be able to track information about STI treatment and care through the support of health facility services.

The majority of transport projects have not carried M&E in a systematic way. In many cases, projects are not able to sustain an M&E effort often due to lack of budget or lack of technical support and 'retrofitting' M&E in a project is much harder and less effective. Instead evaluation would be needed not only to demonstrate that resources are well spent, providing information about what works and what does not in order to enhance the quality of future investments or support the scaling up of existing programs.

The capacity of MOTs and MOHs varies from country to country and so does typically the focus on environmental and social aspects within national transport strategies. As a result, it has been argued that M&E reporting should be contracted to separate public or private entities. However, M&E reports should still be submitted to National AIDS Committees so that activities and results can be reported in overall country progress reports. In that context, M&E play a fundamental role in assessing the effectiveness and efficiency of HIV activities in transport and in providing a benchmark at the national level.

Under the 'Three Ones' principles, UNAIDS partners, including the World Bank, have endorsed the notion of 'one agreed country level monitoring and evaluation system.' As long as implementing partners continue to use different systems or tools, data will not be coherently summarized. This is one important aspect of possible follow-up action with the Joint Initiative partners.

8.5. Overcoming stigma

Stigmatization attitudes toward people with HIV/AIDS play an important role in determining whether individuals get tested for HIV and for rising rates of HIV infection. This remains the most challenging aspect of HIV/AIDS prevention program at the workplace in transport and across sectors.

Despite the clear need, only few workplace interventions have been designed to reduce stigma or create support for workers who are HIV-positive. One significant barrier is the difficulty of designing and evaluating interventions aimed at reducing the problem, due to uncertainty about how to define and measure the complex process of stigmatization. Community-based NGO services that provide support groups and counseling but are also linked to the workplace can provide support to programs based at the workplace. It is also essential that high quality, confidential care be offered by attentive staff free of stigmatizing attitudes.

Some success in overcoming stigma associated with HIV and truckers has been achieved through the establishment of mobile wellness and health centers along major transport routes. It has been reported through several initiatives that truckers are concerned that interventions advertised specifically as HIV programs for truck drivers would reinforce the negative stereotypes about them as carriers of HIV and STI. With roadside wellness centers, the idea is not to provide services only related to sexual health but rather services on a range of health issues with a strong HIV component that caters to truckers' unique health needs. These specific programs also put truckers at a lesser risk of being socially prejudiced as vectors of the disease and for seeking health services (Chinaglia et al 2007).

9. RECOMMENDATIONS TO MITIGATE RISK AND VULNERABILITY

More than a decade of worldwide experience in tackling HIV in the transport sector helps consolidate our knowledge about what can be considered good practice in tackling HIV in the transport sector. The sector and its various modes provide options and relatively flexible alternatives for the reduction of HIV vulnerability and there exists synergies that can be exploited between the health and transport sectors. Also, transport stakeholders and employee associations are important partners for workplace strategies and can contribute to data collection, monitoring and evaluation. What follows is a list of recommendations aimed at providing guidance on how to best design and implement HIV interventions in the transport sector. These recommendations are based on the lessons drawn from the various interventions and evidence collected and discussed throughout the present report.

Establish a national sector policy on HIV/AIDS. At the country level, there are presently few policies and regulations on HIV/AIDS in the transport sector. However, a number of country-based initiatives can serve as good-practice examples. An HIV transport policy should be developed in consultations with local stakeholders and should align itself with the National multisectoral HIV/AIDS Strategic Framework as well as the multi-sector response of the National HIV/AIDS Commission. For example, Malawi's transport sector HIV/AIDS policy was developed through consultations among all the partners in the sector and draws from the Malawi National HIV/AIDS policy. The policy document states that 'aim of the policy is to guide and direct the process of dealing with HIV/AIDS in the workplace of the transport sector in Malawi.' South Africa's Transport Sector HIV/AIDS Strategic Plan was also developed through stakeholder consultations, and aims to 'ensure optimal utilization of resources through smart partnerships in the planning and implementation of HIV/AIDS interventions by Transport Sector partners.'

Build partnerships with existing institutions and stakeholders. The recent survey conducted by UNGASS suggests that the majority of countries have adopted national multisectoral HIV/AIDS strategy or framework and have established national HIV/AIDS control authority or national HIV/AIDS commission. Most of these national commissions work in consultation with health sector authorities, and some include transport authorities such as the ministry of transport as active supporting member. Other possible partners include bilateral and multilateral donors, international and regional institutions, elements of civil society whether local, national, regional or international including public and private sectors. The transport sector, in tandem with the health sector, can utilize the knowledge and networks already established by these organizations for developing, reviewing and implementing the most effective and efficient approaches to tackle the pandemic. Finally, there are synergies across the transport and health sectors that can be better exploited. Involving the health sector in project preparation and implementation can play an important role in project success. Likewise, health staff can work with transport staff to convince the line ministry to act on HIV/AIDS mitigation.

Target vulnerability of the sector through flexible interventions focused on behavioral change. The characteristics of the various modes as well as the different types of transport operations present options and alternatives for the reduction of HIV/AIDS vulnerability through behavior change, particularly the consistent use of condoms. In the transport sector, education and behavior change campaigns need to reach infrastructure construction workers including the management and supervision personnel and their families, transport service delivery personnel and their families, and people in local communities. Methods of communication can range from one-to-one person interaction at a workplace to posters placed in a railway stations through sustained advertising, peer education and community mobilization. The transport sector should link its HIV interventions with health and VCT services along transport routes and in project areas. Transport employers can help by adapting work schedules to allow more frequent home stays and providing better facilities for rest and other support services (this can be done in conjunction with other employers, trade unions, governments

and NGOs – where possible). In some situations, where practicable, transport long-distance workers might be able to bring spouses with them.

Assess risk context for designing HIV intervention and enforcing standard IEC clauses. The level and type of interventions best suited to meet a specific country prevalence rate and risks associated with a transport operation must be assessed before designing a specific intervention. Likewise, the inclusion and interpretation of the standard bidding clauses for HIV mitigation should be enforced based on the specificities of a project's local circumstances. In some countries, where governments have public programs for HIV/AIDS, the contractor could only need to create a support basis which can be included in its overhead. Also, in many civil works contracts such as in urban areas, workers do not live in the site but in their homes and the issues of clauses has to be addressed differently. For civil works in remote locations, the cost of an HIV intervention will be greater but can also rely on the help of local health services and the experience of local implementing units such as NGOs with experience in HIV mitigation and the provision of related health and VCT services.

Support the improvement of working conditions of transport workers. In order to mitigate the spread of HIV/AIDS on a long-term basis, it is necessary to address the issues that can lead transport workers to engage in risky behavior. These include working excessively long hours without taking enough time to rest; poor facilities for recreation and rest; and lack of appropriate health services and other benefits. Transport workers are often harassed by the authorities and police and stigmatized by the communities they come in contact with. The ILO *Code of Practice on HIV/AIDS and the world of work* provides useful guidelines for providing an integrated HIV workplace response to workers and their families. The improvement of these conditions will not only contribute to the reduction of risky behavior and vulnerability but also support other positive outcomes such as reduction of road accidents and greater road safety for communities around transport routes. Employers and authorities can help by adapting work schedules to allow more home stays and providing better facilities for rest and other services.

Reduce stigma and discrimination. The vulnerability of the transport workers often creates stigma and breeds discrimination. It is often reported by those who implement HIV/AIDS interventions that stigma is one of the hardest obstacle to conquer in implementing an effective HIV/AIDS programs. The ILO calls stigmatization 'dangerous' as it drives the problem 'underground' and makes the disease spread faster. Some programs targeting certain risk groups such as truck drivers without promoting their rights are criticized for further stigmatizing them. Involving PLWHA, local communities, traditional and religious leaders in the project design and implementation may help reduce fear and stigma and also provide additional support for convincing transport workers and vulnerable groups about the importance of condom use.

ANNEX 1: RESOURCES AND TOOLS

1. MAINSTREAMING

1.1. Mainstreaming in a sector ministry

HIV/AIDS Mainstreaming: a Definition, Some experiences and Strategies. A resource developed by HIV/AIDS focal points from government sectors and those that have been working on HIV/AIDS mainstreaming. DFID. January 2003.

Report reviews experiences, ideas and strategies from countries mainly working through sector-wide approaches (SWAPs) for mainstreaming HIV/AIDS into government sector ministries at all levels, whether national, regional or district. The report provides guiding on designing strategies for mainstreaming HIV/AIDS across sectors and is designed for managers and staff within government ministries at all levels as well as HIV/AIDS focal points within sector ministries.

1.2. Additional Case Studies

Truckers

World Bank. 2007. Corporate responses to HIV/AIDS: Case studies from India. Washington, DC.

Recognizing the importance of truckers to its business and the vulnerability of the trucking community to HIV/AIDS, the Transport Corporation of India (TCI) established a network of clinics along national highways. Operated by local NGOs, these clinics serve long-distance truck drivers and their helpers, providing treatment for sexually transmitted infections and counseling services at preventing HIV.

Metro

World Bank. 2007. Corporate responses to HIV/AIDS: Case studies from India. Washington, DC.

The Delhi Metro Rail Company, formed in 1995 under the Ministry of Railways to build and operate the Delhi metro system, is currently in phase II of the construction project expanding the system by 121 km of route length and 79 stations by a target completion date of 2010. This construction project draws migrant laborers, a population typically at risk, from across India. The main components of the program were: advocacy, peer education, and condom distribution.

2. TOOLS FOR DESIGNING HIV INTERVENTIONS

2.1. Resources for the road sector

ADB, Roads and HIV/AIDS. A Resources Book for the Transport Sector. February 2008.

This resource book seeks to help ADB staff and other key players in the transport sector to design and implement more effective HIV/AIDS programs in the transport sector projects. It also asks decision makers to become more attentive to the risks and opportunities to fight the spread of HIV, guiding them in finding solutions that will reduce the negative impact of transport programs.

2.2. Reducing HIV Stigma and Discrimination

Reducing HIV Stigma and Discrimination: a critical part of national AIDS programmes. A Resource for national stakeholders in the HIV response.

This document presents strategies, program examples and research findings concerning how governments, the UN system, donors and civil society can make the reduction of HIV-related stigma and discrimination central in the national response to AIDS.

2.3. Situation analysis and Baseline surveys

HIV/AIDS Rapid Assessment Guide. David Wilson. Project Support Group (PSG), Harare, Zimbabwe and Family Health International (FHI) for USAID. 2001.

Report provides detailed examples of questionnaires and categories for recording critical information about the economic, social and cultural context of a project area, including a detailed enumeration of population, employment, infrastructure, transport routes and health and social services. A focus group guide is designed to provide in-depth qualitative insight while the behavioral survey guide aims to provide rapid, key data on sexual behavior, condom use and STIs.

Family Health International (FHI). 2000. Behavioral Surveillance Surveys: guidelines for repeated behavioral surveys in populations at risk of HIV. Arlington, VA: FHI.

_____. 2001. *HIV/AIDS Rapid Assessment Guide – why we map, where we get maps, what we map, and how we map.*

UNDP-SEAHIV. 2004b. Mapping Made Easy: A guide to understanding and responding to HIV vulnerability UNDP-SEAHIV, UNESCO, the World Bank, WFP, FHI, USAID, IOM, WVI. Bangkok: UNDP June. South East Asia HIV and United Nations Development Programme.

The NGO Family Health International (FHI) and other international organizations such as UNDP have developed mapping tools and sample interviewer training guides and questionnaires in order to conduct quick surveys among high risk women such as sex workers, and men with high risk occupations such as transport workers.

2.4. Monitoring and Evaluation

Monitoring and Evaluation Toolkit. HIV/AIDS, Tuberculosis and Malaria. Second edition, January 2006. Addendum March 2008.

The document provides information on how to link between indicators and the data collection and analysis systems for HIV, providing guidance on the core set of indicators agreed among donors as well as in cross-cutting areas for monitoring program implementation in HIV, tuberculosis and malaria.

Organizing Framework for a Functional National HIV Monitoring and Evaluation System. UNAIDS. April 08.

The document introduces an organizing framework for a functional national HIV M&E system. The framework provides a description of the main components of a functional national HIV M&E system, and some benchmarks against which to assess progress in establishing such a system. The document covers system components that need to be present and work to an acceptable standard for the national M&E system to function effectively but does not provide detailed guidance on how to operationalize the system.

3. EDUCATION CAMPAIGNS

3.1. Road transport

Driving for change: A training toolkit on HIV/AIDS for the road transport sector.

Developed in 2006, the toolkit aims to provide information for road transport workers at risk of being infected with HIV. The toolkit has three main modules: 1) A training of trainer's manual/course for facilitators; 2) A training course for management personnel of road transport companies; and 3) An awareness-raising and advocacy course for transport workers which can be used on its own or integrated in existing courses. It also includes A DVD to promote the joint effort to combat HIV/AIDS in the road transport sector and raise awareness of the training materials and training opportunities that may be offered jointly or separately by the ILO, IRU Academy, and ITF.

The Road to Good Health Toolkit. World Bank. East Asia Region.

www.TheRoadtoGoodHealth.org

Produced in August 2008, the HIV education toolkit for transport projects includes education materials, curricula and other resources to support the mainstreaming of HIV/AIDS issues in the transport agenda. It is expected that the Toolkit will act as a basic minimum package for implementation of HIV/AIDS education programs currently piloted on projects across the East Asia and Pacific Region, and more broadly, throughout the Bank.

3.2. Seafarers and the Maritime Industry

HIV/AIDS: Be Safe Not Sorry. Mobilizing a response to HIV/AIDS in the Maritime Industry. Course Information for Students. (<http://www.unescap.org/TTDW/HIVAIDS/Index.asp>)

The Transport and Tourism Division of UNESCAP, in collaboration with UNDP SEAHIV, UNAIDS and the Singapore Maritime Academy, has developed a Computer Based Training Programme on HIV/AIDS. The training materials consist of a CD-ROM, a student's coursebook, and an instructor's manual. The programme allows students to work individually, with additional case studies designed for a classroom environment. The course consists of eight modules, covering a range of topics including facts about HIV/AIDS, HIV prevention, testing, and living and working with people with HIV/AIDS. The material is intended to be used in both at training institutes and on-board ship as part of workplace policies.

South East Asia: Toolkit for HIV Prevention among mobile populations in the Greater Mekong Subregion. World Vision Australia & The Macfarlane Institute

Shore Leave: Seafarers, drugs and HIV/AIDS.

Shore Leave is a short UNICEF film about seafarers, drugs and HIV/AIDS. Focussing on northeastern Thai and Myanmar fishermen in southern Thailand, Shore Leave is designed for awareness-raising with seafarers and their families and communities, as well as being a compelling introduction to the issue of seafarers, drugs and HIV/AIDS. Raks Thai Foundation (CARE Thailand) has recently developed a Thai translated version of Shore Leave which is used in their activities with seafarers, and is currently finalizing translations versions in Myanmar, Shan and Cambodian.

3.3. Contract clauses for construction contractors

Implementing HIV/AIDS Contract Clauses in Road Construction Sites, Africa Region, The World Bank, 2008

Aimed at World Bank task teams and transport stakeholders, this Q&A pamphlet describes the role and responsibilities of stakeholders involving task team leaders (TTLs), Ministries of Transport, National AIDS program, project implementation units (PIUs) Consultant/contractors, and NGOs. The pamphlet provides guidance on how to integrate and implement HIV/AIDS prevention activities in the context of contract clauses, which are part of the the World Bank standard bidding documents for contracts larger than \$10 million.

Toolkit for HIV prevention among mobile populations in the Greater Mekong Sub-region. Part two. Country Resources. Eileen Darby, Bruce Parnell, and Kyi Minn. World Vision Australia and Macfarlane Burnet Institute for Medical Research and Public Health. Asian Development Bank and UNDP.

Chapter four of the toolkit focuses on resources for writing up construction contracts that include HIV clauses. Useful resources include a sample HIV prevention program contract with construction companies and contractors; a draft contract for the provision of an HIV prevention program to the contractor's employees and others; and draft HIV clauses for inclusion in construction contracts.

FIDIC Policy on HIV/AIDS in the Construction Sector. Policy Annexures.

The Annexes include technical specification for HIV/AIDS clause for inclusion in the FIDIC construction contract; and examples of compliance reports.

ANNEX 2: PROJECT INDICATORS AND BASE VALUES

The table in this section provides an example of the minimum type of Specific data and indicators needed for **Targeted transport workers** and **most-at-risk populations** (women, CSW, MSM, IDU) in order to create a baseline, measure progress and results achieved through HIV prevention.

Socio-economic characteristics		Data source
Demographic	Age; marital status; education level; occupation; Age at first sexual intercourse;	Behavioral survey
Workplace conditions	Number of days per month transport workers are away from home	
Social & cultural behaviors	Number of days per month of alcohol consumption	
	Number of days per month of drug consumption	
Monitoring the process		Data source
Input & process indicators	Existing national policies and laws relevant to HIV/AIDS	National documents
	Number of training sessions held and on which topic	Program monitoring
	Number and type of HIV/AIDS training materials developed and distributed (pamphlets; brochures etc)	
	Number of media HIV/AIDS radio/television programs or awareness publicity products produced and number of hours aired	
	If condoms are distributed, number of condoms given	
Output indicators	Number and percentage who both correctly identify ways of preventing sexual transmission of HIV and who reject major misconceptions about HIV transmission (based on UNGASS indicator #14)	Population/Behavioral survey & program monitoring
Behavioral Change Communication	Number and percentage who can correctly identify at least three STI symptoms	
	Number and percentage reached with HIV prevention programs (based on UNGASS indicator #9) (number and percentage)	
	If peer training takes place, number and percentage reached	
	Actual participants in the training sessions as a percentage of planned participants by category	
Risk behavior	Number and percentage who report having had an STI infection in the past 3-6 months	
	Number and percentage who report using condom for last sexual intercourse	
	Number who report sexual intercourse with more than one partner	
	Number who report using condoms with paying partners/ clients	

Attitudes about HIV	Number and percentage who feel HIV+ teachers should be able to continue teaching	Behavioral and population-based survey & program monitoring
	Number and percentage who report they would take care of HIV+ relative in their household	
	Number and percentage who report they would buy food from a shop keeper known to have HIV	
Condoms	Number and percentage who report that they can access condoms on their own (based on UNGASS indicator #12).	
	List locations where condoms are available, distinguishing between numbers of condoms available for sale through social marketing and the number of condoms available for distribution free of charge (number)	
Access to and use of Testing and Counseling	Number and percentage who received an HIV test in the last 12 months and who know their results (based on UNGASS indicator #8)	
	Number and percentage who tested HIV positive and have received counseling for positive prevention	
Evaluating for effectiveness		Data source
Outcome indicators	Increased number of attendees at training sessions and/ or VCTs	Program monitoring
	Increased use of condoms	
	Percentage who have had more than one partner in the last 12 months (based on UNGASS #16)	Behavioral and population-based survey
	Percentage who express accepting attitudes towards people living with HIV	
	Percentage who had more than one sexual partner in the past 12 months reporting the use of a condom during their last intercourse (based on UNGASS indicator #17)	
	Percentage of IDUs who report the use of sterile injecting equipment at last injection	
Impact indicators	Percentage who are HIV-infected (HIV prevalence) (based on UNGASS indicator #23)	

ANNEX 3: NATIONAL FRAMEWORKS FOR COMBATING HIV IN THE TRANSPORT SECTOR: 2008 REVIEW OF COUNTRY INITIATIVES

*UNGASS progress reports include information on sectors included in the national strategy.

**Transport agency includes ministries of transport, ministries of railways, ministries of civil aviation, national road agencies, and other governmental agencies overseeing transport sector activities.

***All results are based on the review of 2006 and 2008 UNGASS Country Progress Report and other available materials and information.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Sub-Saharan Africa				
Angola	Yes	N/A	N/A	Truck drivers are identified as 'principal determinants of the epidemic in Angola' (2006 UNGASS Report). The Union of Angolan Rural Adolescents (UAJACA), a youth NGO in Huambo province has worked with UNICEF conducting 80 training sessions in nine health clinics, 10 training sessions for truck drivers. ¹⁴
Benin	Yes	N/A	Yes	Truckers (long-distance lorry drivers) are considered as a high-risk population by the national strategy. Basic studies conducted for the World Bank Abidjan-Lagos Corridor Project along the corridor showed 5% prevalence rate among lorry drivers and 30.1% among sex workers. National response includes behavioral surveillance of lorry drivers (2006, 2008 UNGASS Report).
Botswana	Yes	Yes	N/A	Ministry of Works and Transport established an HIV policy in 2004. ¹⁵ Transport sector is included in multisectoral action strategy and specific budget is earmarked for HIV activities in the sector. Ministry of Works and Transport has a focal person (T. Molemogi) for HIV issues (2008 UNGASS Report).
Burkina Faso	Yes	Yes	Yes	Truck drivers identified as most-at-risk group and targeted for intervention. 69% of truck drivers have had access to prevention programs during 2004 (PROMACO 2004). Knowledge on prevention: 41% among truckers (2006 UNGASS Report). During 2006-2007, 14,375 truck drivers were covered by national prevention programs. Truckers are

¹⁴ For example, on the outskirts of Huambo where truck drivers take breaks between long hauls, young activists speak to the large crowds of truckers about HIV/AIDS prevention. Map of Programs for Adolescent Participation during Conflict and Post-Conflict Situations. UNICEF.

¹⁵ HIV/AIDS Policy for the Ministry of Works and Transport. 2004.

http://www.mwt.gov.bw/files/attachments/hiv_aids_policy.pdf Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				considered most-at-risk and association des camionneurs routiers works within the national strategy as a civil society organization (2008 UNGASS Report). Burkina Faso participates in the World Bank Abidjan-Lagos Corridor Project. Transport Sector Project supports Ministerial Committee against HIV through Ministry of Infrastructures Transport and Housing (MIHT). ¹⁶
Burundi	Yes	N/A	N/A	
Cameroon	Yes	Yes	N/A	Survey result for transport workers: prevalence rate: 16.3%; HIV screening: 29.8%; condom use with casual sex partner: 39%. Transport workers are considered most-at-risk and targeted by national response (2008 UNGASS Report).
Cape Verde	Yes	Yes	Yes	Ministry of transport and infrastructure has organized sensitization activities for road workers, in the context of the Praia Port, and within the context of the signature of the CCS-Sida et the MCA/cape verde protocol (2008 UNGASS Report).
Central African Republic	Yes	N/A	N/A	
Chad	Yes	Yes	N/A	Mobile populations and truck drivers are recognized as a high risk group (2006 UNGASS Report). Transport ministry is included in National Strategic Plan. Situation analysis of the sector response was conducted and sectoral plan for HIV prevention was drawn (2008 UNGASS Report).
Comoros	Yes	Yes 2006	N/A	Moto-taxi drivers are considered as a most-at-risk group. Transport sector is included in the National multisectoral strategy (2006 UNGASS Report).
Congo	Yes	N/A	N/A	Transport workers are targeted for intervention. Knowledge of prevention among transport workers: 4%. HIV screening among transport workers: 17.3%. HIV prevention program reached to transport workers: 22% compared with MSM: 41% (2006 UNGASS Report). Communities along transport corridors are targeted for intervention (2008 UNGASS Report).
Congo, Dem. Rep. of the	Yes	Yes	N/A	Prevalence among lorry drivers: 3.3% (2006 UNGASS Report). Transport sector is part of the national strategic plan. Ministry of Transport and Communication has a focal person (Raimond YUMBA) for HIV issues (2008 UNGASS Report).
Côte d'Ivoire	Yes	N/A	Yes	Transport ministry was included in the workplace policy survey. The country participates in the World Bank Abidjan-Lagos corridor project. RAIL LINK Project implemented by NGOs (FHI, CARE, PSI) has

¹⁶<http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=64290415&theSitePK=40941&menuPK=228424&Projectid=P074030> Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				prevention activities along the railway and railway stations (railway axis Abidjan-Ouagadougou) ¹⁷ (2006 UNGASS Report).
Eritrea	Yes	Yes	Yes	Ministry of Transport and Communication, along with other line ministries, is part of the national strategic plan and has been involved in the dissemination of information, provision of education on HIV prevention through organized workshops and mass media to targeted populations. Ministry of Health conducted a national study in 2006, which revealed prevalence rate of 7% among long-distance truck drivers while national average is 2.38%. A 2006 regional study in Asmara and Massawa showed prevalence of 9.7% among truckers. Syphilis prevalence among them was 3% while it was 0.98% for sex workers. A national BCC program and condom distribution programs target truck drivers as a high priority group, and 4,218 (87.9%) drivers were reached during 2006-2007 (2008 UNGASS Report).
Ethiopia	Yes	Yes	Yes	Ministry of Transport and Communication has workplace policies for their employees. Mobile populations are targeted by national programs (2006 UNGASS Report). Ministry of Transport and Communication is part of National AIDS Policy and the minister is a member of National AIDS Council. Truck drivers are considered as most-at-risk and targeted for periodic surveillance. The 2005 Behavioral Surveillance Survey (BSS) revealed that one-third of truck drivers and road construction workers have comprehensive knowledge on HIV, and over 70% of truck drivers and 54% of road construction workers have an accepting attitude toward PLWHA (2008 UNGASS Report). USAID supports capacity building for transport and migrant workers. ¹⁸ Pefpar provides fund for transport corridor project between Addis Ababa and Djibouti. ¹⁹ Ethiopia Road Agency has implemented intervention programs with the World Bank. ²⁰
Gabon	Yes	N/A	N/A	Lorry drivers and migrants are identified as most-at-risk group (2006 UNGASS Report).
Gambia, The	Yes	No	N/A	Truck drivers and moto-taxi drivers are considered at risk. Mass media campaigns targeting truck drivers are funded by USAID. ²¹
Ghana	Yes	Yes	Yes	Ministry of Transportation has sectoral work plan. Minister of Roads and Transport is an active member of Ghana AIDS Commission. Prevalence among truck drivers was 4% (2008 UNGASS Report).

¹⁷ http://www.securiserlefutur.com/media/data/actualite1_eng.pdf Accessed on 3/6/08.

¹⁸ http://www.synergyaids.com/documents/Ethiopia_final.pdf Accessed on 3/9/08.

¹⁹ <http://www.pepfar.gov/documents/organization/81660.pdf> Accessed on 3/9/08.

²⁰ Jocelyn Do Sacramento. 2007. HIV/AIDS Assessment in Sub-Saharan Africa Transport Projects. World Bank. Washington, DC.

²¹ <http://www.usaid.gov/missions/westafrica/health/ambassador/index.htm> Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				All major projects implemented by Ministry of Transport now have a provision for education and sensitization for transport workers and users. ²² The Ghana Social Marketing Foundation established HIV prevention programs in 24 transport hubs, one fourth of which is funded by USAID. ²³
Republic of Guinea	Yes	Yes 2006	N/A	Transport included in the ministerial committee for the fight against AIDS. Truck drivers are identified as risk group and targeted for condom distribution and awareness program. Prevalence among truckers is 7.3%. Biannual surveillance is planned for truckers (2006 UNGASS Report). Transport workers are considered at risk and included in surveillance programs (2008 UNGASS Report).
Guinea-Bissau	Yes	N/A	N/A	
Kenya	Yes	Yes	Yes	Transport sector is included in National HIV strategy (2006-2010) with an earmarked budget. Truckers are considered most-at-risk and targeted by national programs (2008 UNGASS Report). Ministry of Transport has an AIDS Control Unit (ACU), which is one of the 31 units established in the government key ministries and departments. ²⁴ The ministry built billboards along the Northern Corridor to carry HIV messages. ²⁵ the World Bank Northern Corridor Transport Improvement Project implemented by Ministry of Public Works has an HIV component. ²⁶
Lesotho	Yes	N/A	N/A	Ministry of Transport and Public Works developed education materials for taxi drivers (2003 UNGASS Report). ILO implemented a prevention program in the transport and the informal sector between 2002 and 2003. ²⁷
Madagascar	Yes	Yes	N/A	National strategy includes transport and infrastructure (public works) sector. Transport workers participated in local government's (Commune of Ankaramena) HIV program ²⁸ Mobile workers are considered at risk (2008 UNGASS Report).

²² http://www.mrt.gov.gh/pages/press_story.asp?pressid=8 Accessed on 3/9/08.

²³ http://www.synergyaids.com/Profiles_Web/Profiles_PDFs/GhanaProfileMar2005.pdf Accessed on 3/9/08.

²⁴ http://www.transport.go.ke/index.php?option=com_content&task=view&id=42&Itemid=5 Accessed on 3/9/08.

²⁵ http://www.fhi.org/en/HIVAIDS/country/Kenya/res_broadcasttransportcorridor.htm Accessed on 3/9/08.

²⁶ <http://web.worldbank.org/external/projects/main?pagePK=64312881&piPK=64302848&theSitePK=40941&Projectid=P082615> Accessed on 3/9/08.

²⁷ <http://www.ilo.org/public/english/protection/trav/aids/activities/techcoop.htm> Accessed on 3/9/08.

²⁸ http://data.unaids.org/pub/Report/2007/jc1280-madagascar_en.pdf Accessed on 3/5/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Malawi	Yes	Yes	Yes	<p>Transport sector is included in National HIV/AIDS Action Framework and has an earmarked budget. The National Statistical Office conducts behavioral surveillance surveys (BSS) every two years among high-risk groups including truck drivers and female border traders. 2006 BSS shows truck drivers' prevalence rate to be 14.7% (2008 UNGASS Report).</p> <p>Ministry of Transport and Public Works and the National Road Authority work to mainstream HIV/AIDS in the sector with the World Bank support.²⁹</p> <p>Malawi established a sector policy framework for transport with ILO support.³⁰</p> <p>Muyende Bwino Project by WFP established wellness centers for truckers and road freight workers.³¹</p>
Mali	Yes	N/A	N/A	<p>Lorry drivers' prevalence rate was found to be 2.5% in 2006. 48% of the surveyed drivers reported consistent use of condom in the last 12 months. 37.8% reported irregular use and 14.2% reported to never have used condom in that period. 4.8% of the drivers who reported to never have used condom were HIV positive, as opposed to 0% who reported regular use, showing the strong negative correlation between condom use and HIV prevalence rate (2008 UNGASS Report).</p>
Mauritius	Yes	N/A	N/A	
Mozambique	Yes	N/A	N/A	<p>Evidence shows highest infection rate in the provinces with transport link to the neighboring countries. HIV sentinel surveillance in 2004 shows that in the town of Caia, which lies along the main railway link with southern Malawi, the prevalence rate increased from 7.7% in 2001 to 19.1% in 2004. Government recognizes the need to prioritize the transport corridors (2006 UNGASS Report).</p> <p>Amongst those interviewed in the 2001 USAID-supported study, HIV prevalence differed based on geographic location in which higher HIV prevalence corresponded roughly to transport corridors, border areas, and larger cities in Mozambique. Transport workers are considered as most-at-risk. According to World Vision study (2005), 95.3% of long distance truck drivers interviewed knew where to obtain condoms. In November 2005, PSI/Mozambique conducted a 'Measuring Access and Performance' (MAP) study on condom coverage in high risk areas such as truck stops and found that condom coverage was over 80% (2008 UNGASS Report).</p> <p>WFP has a wellness center located on the Malawi border under Muyende Bwino Project.³²</p>

²⁹ <http://www4.worldbank.org/afr/ssatp/Open.aspx?id=710> Accessed on 3/9/08.

³⁰ <http://www.ilo.int/public/english/protection/trav/aids/laws/malawitransportsectorpolicy.pdf> Accessed on 3/9/08.

³¹ Getting Started: WFP support to HIV/AIDS Training for Transport and Contract Workers. 2006. World Food Program. http://www.wfp.org/food_aid/doc/HIV_Training_Transporters.pdf Accessed on 3/9/08.

³² http://www.wfp.org/food_aid/doc/HIV_Training_Transporters.pdf Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Namibia	Yes	Yes 2006	Yes	A behavioral survey targeting transport workers was conducted in Walvis Bay. ³³ HIV prevention programs increased efforts in addressing most at-risk populations such as truck drivers and other cross-border issues through the Corridors of Hope Program (2006 UNGASS Report). Namibia's Ministry of Works, Transport, and Communication has pledged to distribute HIV awareness message CDs (NamibiAlive!) through its HIV/AIDS workplace programs, as well as at border crossings and checkpoints. ³⁴
Niger	Yes	Yes	N/A	Mobile populations and truck drivers are considered most-at-risk and are targeted for national intervention activities. 2002 national survey shows 1.7% prevalence rate for truck drivers. 25% of the truck drivers use condom with regular sex partner (2008 UNGASS Report). Project SIDA en Exode, funded by EU and operated by CARE International, works with communities in main migratory routes between Tahoua region (Niger) and Abidjan (Ivory Coast) to reduce HIV spread through migration. ³⁵
Nigeria	Yes	Yes (2006)	Yes	Ministry of Transport is one of the seven line ministries on board in the national committee. Nigeria participates in the World Bank Abidjan-Lagos Corridor Project. Transport workers' unions are engaged in policy dialogue and program implementation with the national government (2006 UNGASS Report). Ministry of Transport has conducted a sensitization seminar for transport ministry staff. ³⁶ In 2007, the first Integrated Bio Behavioral Surveillance Survey (IBBSS) was conducted targeting most-at-risk population including transport workers (2008 UNGASS Report).
Rwanda	Yes	Yes	N/A	Moto-taxi drivers are considered as a risk group and are targeted by national programs. Cross border migrants and mobile populations targeted for prevention programs (2006 UNGASS Report). Umbrella of Transporters belongs to CNLS (National Council for Fight against AIDS) as a civil society organization representing transport sector. Among truck drivers surveyed in 2000, 26.8% had ever been tested for HIV and received the results. In comparison, in 2006, 55.6% of the truck drivers surveyed had ever been tested for HIV and received the results. Truck drivers were 3.2 times more likely in 2006 than in 2000 to have been tested for HIV and received the results. In 2000, 32.0% of truck drivers had a comprehensive knowledge of HIV and AIDS. By

³³ http://www.usaid.gov/stories/namibia/cs_namibia_hiv aids.pdf Accessed on 3/5/08.

³⁴ <http://www.pepfar.gov/pepfar/press/83365.htm> Accessed on 3/5/08.

³⁵ <http://www.care.org/careswork/projects/NER062.asp> Accessed on 3/6/08.

³⁶ 'Minister of Transport, Dr. Abiye Sekeibo yesterday described members of his constituency, the transport industry as people with the greatest risk of the deadly HIV/AIDS epidemic in the country.'

<http://nm.onlinenigeria.com/templates/?a=276&z=7> Accessed on 3/5/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				2006, this percentage had risen to 39.1%. It was found that a person's level of education plays a critical role, as illiterate truckers are 60% less likely to have a comprehensive knowledge of HIV. In 2006, the USAID-funded most-at-risk populations program expanded VCT service delivery and continued Behavioral Change Communication (BCC) activities among most-at-risk populations including truck drivers. Data from PSI project sites shows that 16.1% among truck drivers and 4.6% among prisoners participating in VCT were HIV positive (2008 UNGASS Report). Pepfar supports East African Highway program. ³⁷ SafeTStop supported by USAID and FHI. ³⁸
São Tomé and Príncipe	N/A	N/A	N/A	
Senegal	Yes	Yes	Yes	Under the mandate of intersectoral committee against AIDS, ministry of transport drew a sectoral plan. Ministry chaired a workshop on AIDS and invited ministry of health. Transport sector program includes formal sector program (SANFAM) encompassing all transport sub-sectors (airports, ports, railway and roads), providing IEC supports for private enterprises in the sector. It also has informal sector component (MIDA project) with training of educators at bus stops and prevention initiatives for bus users. Truckers are targeted for intervention (IEC, BCC).
Seychelles	N/A	N/A	N/A	
Sierra Leone	Yes	Yes	N/A	National programs targeting miners and truck drivers (2006 UNGASS Report). Prevention programs are envisaged for truck drivers, traders and seafarers (2008 UNGASS Report). Transport workers targeted by American Refugee Committee in the Port Loko district. ³⁹
Somalia	Yes	N/A	N/A	Truck drivers recognized as a risk group (2008 UNGASS Report).
South Africa	Yes	Yes	Yes	Department of transport established a sector strategy in 2001. ⁴⁰ Department of public works has embedded HIV provisions in the contract documents, and has produced training manual for HIV activities as well as a list of qualified NGOs to implement HIV interventions. ⁴¹ 'Corridors of Hope' (USAID) services the major trucking routes in South Africa. The activities include HIV prevention messaging, condom distribution and VCT along major transports routes in the country (2008 UNGASS Report).

³⁷ <http://www.state.gov/documents/organization/61628.pdf> Accessed on 3/9/08.

³⁸ <http://www.fhi.org/NR/rdonlyres/e6umciq6j5ye5n7eqbnezmw6aczhyrlp47wipczof5itszclhljiaa5twunr26a2c7gnr5ksgr3jl/SafeTStop.pdf> Accessed on 3/9/08.

³⁹ <http://www.fmreview.org/FMRpdfs/FMR19/FMR1910.pdf> Accessed on 3/5/08.

⁴⁰ <http://www.transport.gov.za/links/index.html> Accessed on 3/9/08.

⁴¹ <http://www.publicworks.gov.za/#> Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Swaziland	Yes	No	N/A	Truck drivers, Kombi drivers and workers of public transport service sector are recognized as most-at-risk populations by the national government and targeted by Corridors of Hope (USAID) (2006 UNGASS Report). Some national budget is earmarked for use in HIV AIDS activities in transport sector (2008 UNGASS Report). FHI implemented a prevention program (funded by USAID) for cross-border migrants and truckers along transport routes between Lesotho and Swaziland. ⁴²
Tanzania, U. Rep. of	Yes	N/A	N/A	Truck drivers are targeted for intervention by national strategy (2006 and 2008 UNGASS Report). Tanzania Commission for AIDS (TACAIDS) reports that studies by AMREF along the major truck stops and towns have shown this group to have a high HIV prevalence of up to 60%, and that Long distance truck drivers are considered highly at risk with prevalence rate of up to 50%. ⁴³ Pepfar (US President Emergency Plan for AIDS) and USAID have intervention programs along transport corridors.--SafeTStop ⁴⁴
Togo	Yes	Yes (2006)	Yes	Prévention du SIDA sur les Axes Migratoires de l'Afrique de l'Ouest (HIV/AIDS Prevention for Truckers and Transport Workers) This PSI project targets the truckers and transport workers that work along the major transport routes in Togo with HIV/AIDS prevention and double protection messages through radio, billboards and peer-education. ⁴⁵ Participates in Abidjan-Lagos Corridor Project (2006 UNGASS Report). Prevalence rate along the Togo section of the corridor (Kodjoviakopé et Sanvee Condji) was 6.7% (2008 UNGASS Report).
Uganda	Yes	Yes	N/A	Ministry of Works, Transport and Housing has a HIV & AIDS workplace policy in place. Truckers are considered as most-at-risk. Regional project is supported by the World Bank (through Inter-Governmental Authority on Development) to increase preventative action and reduce misconception of cross border and mobile populations and refugees. Another regional initiative supported by the World Bank Great Lakes Initiative for Africa has an intervention for transport workers (2008 UNGASS Report). Amalgamated Transport & General Workers Union and Uganda Railway Workers Union have implemented a joint UNAIDS funded HIV/AIDS project for truckers. Other targeted groups were train and ship crew; other transport workers; and sex workers at truck stopovers. Activities carried out by the project

⁴² Lesotho and Swaziland: HIV/AIDS Risk Assessments at Cross-Border and Migrant Sites in Southern Africa. Family Health International. 2001. http://www.synergyaids.com/documents/3558_fhi_lesothoandswaziland.pdf Accessed on 3/6/08.

⁴³ http://www.tanzania.go.tz/hiv_aids.html#Population%20groups%20mostly%20affected Accessed on 3/5/08.

⁴⁴ <http://www.pepfar.gov/documents/organization/87672.pdf> Accessed on 3/5/08.

⁴⁵ http://www.psi.org/where_we_work/togo.html Accessed on 3/5/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				included workplace policy development and sensitization seminars; community awareness campaigns; counselor training; identification of peer educators; negotiations for better work conditions; and social marketing of condoms. ⁴⁶
Zambia	Yes	N/A	N/A	Cabinet Committee of Ministers on HIV and AIDS includes Minister of Communications and Transport. In 2006, Corridors of Hope undertook and produced two reports on i) Female Sex Workers in Border and Transportation Routes with Trend Analysis and ii) Long Distance truck Drivers (LTDs) in Transportation Routes with Trend Analysis. Results revealed that out of the 181 truckers, 178 received an HIV test and got their results in the last twelve months accounting for 98.3%. A trend analysis of condom use by the LTDs showed that condom use with female sex workers remained above 92% for each of the surveys of 2000 (93.3%), 2003 (92.7%) and 2006 (93.7%). Much lower levels of condom use were reported by the LTDs at last sex with a non regular/ non female sex worker for the same period. However, increasing use of condoms was observed during this period from 50.7% in 2000 to 70% in 2003 and finally 71.9% in 2006 (2008 UNGASS Report).
Zimbabwe	Yes	N/A	Yes	National Strategic Policy recognizes that transport sector is the priority area for intervention because of the vulnerability of sector workers, cross-border issues, and migrant construction workers. Transport workers have access to testing services. National Employment Council for the Transport Industries (NECTOI) works very closely with truck drivers. ⁴⁷ In 2006, through a SADC initiative, a one border post clearing system was established between Zambia and Zimbabwe. This reduces the time spent at border posts clearing trucks hence reducing vulnerability (2008 UNGASS Report). HIV/AIDS Policy for the Transport Sector of Zimbabwe was established with support from ILO. ⁴⁸ Corridor of Hope project (FHI) conducted survey in Chirundu, Zimbabwe, and found that truckers engaged in high risk behaviors. ⁴⁹

⁴⁶ <http://gateway.nlm.nih.gov/MeetingAbstracts/102253727.html> Accessed on 3/9/08.

⁴⁷ http://htc.anu.edu.au/pdfs/resistances_ch12.pdf Accessed on 3/5/08.

⁴⁸ http://www.ilo.ch/public/english/region/afpro/harare/download/newsletter/transport_sector.pdf Accessed on 3/5/08.

⁴⁹ <http://www.fhi.org/en/HIVAIDS/pub/guide/corrhope/corrfin3.htm> Accessed on 3/5/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
South Asia				
Afghanistan	N/A	N/A	N/A	
Bangladesh	Yes	Yes	Yes	<p>Mobile populations such as transport workers and rickshaw pullers are considered most-at-risk. Truckers and rickshaw pullers were included in the 2006-2007 BSS. Results show the following: percentage of population who received HIV testing in the last 12 months and who know the results: 0.07% for rickshaw pullers and 1.6% for truckers; prevention program coverage: 1.6% for rickshaw pullers and 2.6% for truckers; correct identification of transmission ways: 12.1% for rickshaw pullers and 7.7% for truckers (2008 UNGASS Report).</p> <p>Ministry of Civil Aviation and Tourism is included in the multisectoral strategy.⁵⁰</p> <p>Bangladesh Road Transport Corporation and Inland Water Transport Corporation have participated in a survey study of the transport workers and HIV/AIDS. Bangladesh Institute of Labor Studies (BILS) conducted a ground research on the vulnerability of HIV/AIDS among the workers of transport, garments, jute and construction. Selecting the transport and construction workers under high threat awareness raising campaign had been continued through the trade unions in both the sectors.⁵¹</p> <p>In Bangladesh, ADB's national surveillance study found that those with the highest prevalence of HIV were long-distance truck drivers.⁵²</p>
Bhutan	N/A	N/A	N/A	
India	Yes	Yes	Yes	<p>2006 BSS showed that percentage of respondents who reported to have had casual sex in the past 12 months was highest in truckers and helpers. Operational guidelines were finalized for interventions targeting truckers. Bill and Melinda Gates Foundation supports prevention interventions among key Most at Risk Groups in six high-prevalence states and a program for truck drivers on highways in cooperation with Transport Corporation of India. Since 2003, surveillance of ANC (rural) sites, TB sites, migrant population and truckers has been initiated to understand the spread of the epidemic in these groups (2008 UNGASS Report).</p> <p>Truckers are targeted for intervention by national programs (109 projects in 2005) (2006 UNGASS Report).</p> <p>Indian National Railways and Ministry of Land Transport are listed as a partner of NACO, and each has HIV intervention activities.⁵³</p>

⁵⁰ http://hivaidsclearinghouse.unesco.org/ev.php?URL_ID=1653&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1097143865 Accessed on 3/9/08.

⁵¹ Project Activity Report: A BILS PROJECT ON Awareness Raising for Prevention of HIV/AIDS among the Public Sector and Minor Road Transport Workers Duration: December 2005 to December 2006. Bangladesh Institute of Labor Studies. <http://www.bils-bd.org/campaigns/hivaids/Report05-06.pdf> Accessed on 3/9/08.

⁵² ADB, Roads and HIV/AIDS: A Resource Book for the Transport Sector. Asian Development Bank. 2008. <http://www.adb.org/Documents/Books/ADB-HIV-Toolkit/ADB-HIV-Toolkit.pdf>

⁵³ http://www.nacoonline.org/Partnerships/Ministries_and_Departments/

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				A program uses railways for HIV education for hard-to-reach communities along the national railway network. A railway concession fare for HIV infected children. ⁵⁴
Maldives	N/A	N/A	N/A	
Nepal	Yes	Yes	N/A	<p>Transport sector is included in the national policy framework and has an earmarked budget. As part of the national HIV surveillance, Nepal tracks the trends of its epidemic in 5 population groups and in 4 distinct epidemic regions/zones including Terai highway, a trucking route running the length of the country and linking Eastern parts of India with Darjeeling (22 highway districts). A fall in prevalence was observed among FSW in the Terai highway districts from 3% in 2003, 2% in 2004 to 1.5% in 2006. 2006 survey shows 1% prevalence rate among truckers (2008 UNGASS Report).</p> <p>Truckers had 5.3% untreated syphilis in 1999 and 4.5% in 2003 (2006 UNGASS Report).</p> <p>The Narayani Transport Entrepreneurs Association is working with FHI to provide a static STI clinic for truckers in Hetauda.</p> <p>Mobile populations (international migrant workers working in Mumbai, India) have been surveyed. FHI has done extensive BSS along highways.⁵⁵ and ⁵⁶</p>
Pakistan	Yes	N/A	N/A	<p>Long distance truck drivers are considered most-at-risk and targeted for interventions (2008 UNGASS Report).</p> <p>Education program targeting truck drivers, migrant workers and factory workers was led by Ministry of Labor with support from UNDP and ILO. Survey showed that condom use in the last sex was 4.3% among truckers (2006 UNGASS Report).</p> <p>It has been reported that over 49% of truckers had had sex with men.⁵⁷</p>
Sri Lanka	Yes	Yes	N/A	<p>Small scale behavior change interventions were carried out through 26 NGO/CBOs contracted during the second round in 2005 -2006 and included transport workers. A Behavioral surveillance system was established and the first ever behavioral surveillance has been conducted from 2006-2007 among six subpopulations including transport workers (2008 UNGASS Report).</p> <p>National programs target transport workers. NGOs conducted IEC campaigns targeting transport workers (2006 UNGASS Report).</p>

⁵⁴ http://www.kaisernetwork.org/daily_reports/rep_index.cfm?DR_ID=49633 Accessed on 3/9/08.

⁵⁵ <http://www.fhi.org/en/HIVAIDS/pub/survreports/bssmahendra.htm> Accessed on 3/9/08.

⁵⁶ Billy Pick et al. March 2004. Two Year Review of the Nepal HIV/AIDS Strategy. http://pdf.dec.org/pdf_docs/PNADC731.pdf Accessed on 3/9/08.

⁵⁷ Agha, Sohail. 2001. Potential for HIV transmission among truck drivers in Pakistan. Population Service International. Washington, DC. http://www.aidsonline.com/pt/re/aids/abstract_00002030-200010200-00024.htm;jsessionid=Hhsbh2VC5TxC96cnC4sPPhbWp3G6tJyBfJvGLJQW15fI81xThJNy!327387095!181195628!80911-1 Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
East Asia and Pacific				
Cambodia	Yes	N/A	Yes	Truck drivers identified as an emerging risk group by national survey. Moto-taxi drivers are identified as recruiters for commercial sex workers, and are targeted for intervention in the national strategy. Ministry of Rural Development is included in the national strategy (2006 UNGASS Report). ADB's Greater Mekong Subregion Southern Transport Corridor Project has HIV component in cooperation with Ministry of Public Works and Transport. (Cambodia signed up for Greater Mekong Subregional Joint Action Program for reduction of HIV prevalence among mobile populations including transport workers.) ⁵⁸
China	Yes	Yes	Yes	The national comprehensive surveillance sites increased from 42 in 2004 to 159 in 2006. These are located in 27 provinces (autonomous regions and municipalities) and cover six population groups at higher risk including transport workers. Ministry of Railways has developed strategic plans for HIV response. Various sectors, including railways, communications, civil aviation and border control and quarantine regularly developed and published public billboards and exhibits panels on HIV knowledge at bus stations, shipping ports and airports; and also initiated education activities to their passengers (2008 UNGASS Report). Hubei Department of Communications has implemented an HIV prevention program with the World Bank support. ⁵⁹
Hong Kong, China (SAR)	N/A	N/A	N/A	Hong Kong Advisory Council on AIDS has a strategy for cross-border travelers including truck drivers. Truck drivers were interviewed for BSS in 1997. ⁶⁰
Indonesia	Yes	Yes	Yes	Ministry of Transportation spent 24,457 USD for HIV activities in 2006 (0.19% of national budget). Transport sector is included in the National Action Framework and has an earmarked budget for 5 years. Migrant workers and mobile populations are considered most-at-risk (2008 UNGASS Report). The Government of Indonesia has requested the Asian Development Bank (ADB) to provide technical assistance (TA) to develop a strategy for HIV and AIDS prevention in infrastructure projects for the Ministry of Public Works (MPW). ⁶¹

⁵⁸ <http://www.adb.org/Documents/ADBBO/LOAN/36353023.ASP> Accessed on 3/9/08.

⁵⁹ <http://go.worldbank.org/NVISN6CC70>

⁶⁰ HIV Prevention Hong Kong Strategy Series: HIV Prevention in Cross-Border Travelers. 2001. <http://www.hivpolicy.org/Library/HPP000166.pdf> Accessed on 3/11/08.

⁶¹ 'This request followed a dialogue with MPW and the National AIDS Commission (NAC) about the potential spread of HIV through infrastructure projects, especially transportation and road projects. The TA was programmed in connection with the ADB-financed Road Rehabilitation-2 project' Technical Assistance Report for Republic of Indonesia: Support for HIV and AIDS Prevention in Infrastructure (Financed by the Japan Special Fund). Asian Development Bank. 2007. <http://www.adb.org/Documents/TARs/INO/40130-INO-TAR.pdf> Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				Working Group on HIV/AIDS addresses issues of migrant workers and truck drivers. ⁶² BSS 2000 conducted by FHI included truckers. ⁶³ Of the 550 truck drivers, 92 (16.7%) had at least one infection and 11 (2.0%) had two concurrent infections. No HIV infection was diagnosed (2000 data). ⁶⁴
Korea, Rep. of	N/A	N/A	N/A	
Lao People's Dem. Rep.	Yes	Yes	N/A	Ministry of Transport is one of the line ministries for combating HIV. Recent data also point to the vulnerability of migrants and other mobile groups (2008 UNGASS Report). Truck drivers are identified as most-at-risk and targeted for national prevention programs. In 2004, 78% of truck drivers were reached (2006 UNGASS Report). ADB has implemented interventions along East-West highway corridor. ⁶⁵ FHI survey shows high risk behaviors among truck drivers and tuk tuk drivers. ⁶⁶
Malaysia	Yes	No	N/A	Mobile populations are considered at risk and targeted for interventions (2008 UNGASS Report). Long distance drivers' HIV prevalence was 3.7% in 2004 (2006 UNGASS Report).
Marshall Islands	Yes	Yes	N/A	Ministry of Transportation and Communication and Ports Authority is included in the national framework (2008 UNGASS Report).
Micronesia	N/A	N/A	N/A	
Mongolia	Yes	Yes	N/A	Ministry of Road, Transportation and Tourism is part of the National AIDS Council. Transport sector is included in the National Action Framework. 2005 BSS found that mobile traders and truck drivers accounted for 41.2% of CSWs' clients (2008 UNGASS Report).
Myanmar	Yes	Yes	Yes	World Food Program has an intervention for truckers. ⁶⁷ Ministry of Railways and Ministry of Transportation are partners of the national response. Ministry of Railway provides technical coordination of transport sector based response. Sector workers are identified as a risk group and targeted for intervention. Targeted populations include: Seafarers, formal and informal workers, cross border and other workers from inland water transport sector, Truck, bus and taxi drivers, Railway workers, Sex workers and entertainment workers, cross border workers, Traders, including

⁶²http://www.hivmobilitysea.org/NationalResponses/documents/Indonesia_Country_Presentation_Kunming06.pdf
Accessed on 3/9/08.

⁶³<http://www.fhi.org/en/HIVAIDS/pub/Archive/bss/index.htm> Accessed on 3/9/08.

⁶⁴http://www.wpro.who.int/NR/rdonlyres/47E53FE9-C011-4F08-BF98-7ACFE4E70344/0/PrevalenceSurveyofSTI_CHN_1999_2000.pdf Accessed on 3/9/08.

⁶⁵<http://www.adb.org/gender/practices/infrastructure/lao001.asp> Accessed on 3/9/08.

⁶⁶http://www.ifpr-hiv.org/CountryReport_Laos.pdf Accessed on 3/9/08.

⁶⁷<http://www.wfp.org/english/?ModuleID=137&Key=1936> Accessed on 3/11/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				cattle herders, Population in difficult to access areas (2006 UNGASS Report).
Palau	Yes	N/A	N/A	
Papua New Guinea	Yes	Yes	N/A	Transport sector is included in the national action framework. The first round of Behavioral Surveillance Surveys (BSS) was conducted in 2006 through an initiative of the AusAID funded National HIV/ AIDS Support Project (NHASP). 246 truck drivers and 421 Lae port workers were interviewed. The percentage of men paying women for sex in the last 12 months was 70% for truck drivers and 30% for port workers. Consistent condom use with sex workers during the last 12 months was 33% for truck drivers. Truck drivers were more likely to have non-commercial casual sex partners (71%) than port workers (41%). Condom use at last sex with regular partners was 12.6% for truck drivers and 24.9% for port workers. Consistent condom use was 6.5% for truck drivers and 9.3% for port workers. Close to 40% of truck drivers said that they had had forced sex with a woman who did not consent (2008 UNGASS Report).
Philippines	Yes	N/A	N/A	The national surveillance system covers overseas Filipino workers including seafarers (2006 UNGASS Report). A cross sectional survey among 200 taxi drivers and 100 truck drivers/helpers was conducted late in 1997 by Department of Labor and Employment to assess the knowledge, attitudes and practices of taxi drivers and truck drivers/helpers relative to STD/HIV/AIDS. ⁶⁸ The Department of Health of the Philippines, which supplies the largest number of seafarers of any country, conducted a study of HIV prevalence between January 1984 and December 2003 and found that 12 per cent of an estimated 2,001 persons who were HIV-positive were seafarers and 10 per cent were sex workers. ⁶⁹
Samoa (Western)	N/A	N/A	N/A	
Solomon Islands	N/A	N/A	N/A	
Thailand	Yes	N/A	Yes	Truck drivers are recognized as high risk (2008 UNGASS Report). Mobile population is identified as a risk group (2006 UNGASS Report). Department of Highways and Ministry of Transport and Communication collaborated with JBIC in implementing AIDS program for Second Mekong International Bridge Construction (JBIC project). ⁷⁰

⁶⁸ <http://www.oshc.dole.gov.ph/page.php?pid=98&PHPSESSID=dc99bf3fc00d6898219a68cca4cccac6> Accessed on 3/11/08.

⁶⁹ <http://www.itfglobal.org/HIV-Aids/agenda1-seafarers.cfm> Accessed on 3/11/08.

⁷⁰ HIV prevention program for mobile workers at the construction site and surrounding communities in the cross border area. Japan Bank for International Cooperation.
http://www.jbic.go.jp/japanese/oec/environ/pdf/aids_e03.pdf Accessed on 3/9/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Timor-Leste	N/A	N/A	N/A	
Tonga	N/A	N/A	N/A	
Vanuatu	N/A	N/A	N/A	
Vietnam	Yes	Yes	Yes	Transport sector is included in the national action framework (2008 UNGASS Report). The Ministry of Transportation initiated HIV prevention programs in 1996-1997 with workshops to train staff. In 2001, NSAB and the Ministry of Transportation implemented a pilot HIV/AIDS intervention for construction workers at the Ho Chi Minh Highway. The Ministry of Transportation plans to develop pilot HIV programs in the rural and mountainous areas for 2001-2005. ⁷¹
Latin America and Caribbean				
Argentina	Yes	N/A	N/A	Many Argentine truck drivers engage in high-risk sexual activities, and they are suspected of contributing to the spread of HIV to poor teenagers and young women, according to new data presented in Havana at the Second Forum on HIV/AIDS/STD in Latin America and the Caribbean. A survey of 58 long-distance truck drivers in Buenos Aires found that 90% had unprotected sex at least once during the previous year, mostly with commercial sex workers but also with children and teenagers. ⁷² Prevention activities for migrants (2008 UNGASS Report).
Belize	Yes	N/A	N/A	
Bolivia	Yes	N/A	N/A	Truck drivers are considered at risk. A study found that 52% of truckers reported having had a sexually transmitted infection (STI) and 27% indicated having anal sex with female partners. These data, combined with truckers demonstrating inconsistent STI/HIV knowledge and condom use, place Bolivian truck drivers and their spouses at risk for HIV/AIDS. ⁷³
Brazil	Yes	No	N/A	Truck drivers are targeted by national interventions including prevention activities and stigma reduction (2008 UNGASS Report). Horizon Project targets truck drivers for prevention and treatment in a Brazilian border town (with Paraguay). The results show high level of STIs among the long distance drivers. ⁷⁴ One study investigated the relationship between mobility and casual sex among Brazilian truckers. It

⁷¹ Mobile Populations and HIV Vulnerability Selected Responses in South East Asia

⁷² Argentine, Brazilian Truck Drivers at HIV Risk. April 13, 2003. Reuters Health. Matias Loewy.
<http://www.thebody.com/content/world/art29833.html> Accessed on 3/9/08.

⁷³ William Sorenson, et al. Heterosexual STI/HIV Risk Assessment Among Bolivian Truck Drivers Using Mixed Methodology. International Electronic Journal of Health Education, 2007; 10:9-18

⁷⁴ Magda Chinaglia, et al. Reaching Truckers in Brazil with Non-stigmatizing and Effective HIV/STI Services. Population Council. 2007. <http://www.popcouncil.org/pdfs/horizons/BrazilTruckersReport.pdf> Accessed on 3/10/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				<p>found that for each week slept at home, the odds of having sex with a commercial partner decreased by a factor of 0.73 and the average number of commercial partners decreased by a rate of 0.76.⁷⁵</p> <p>Volkswagen Brazil has a prevention program for their employees.⁷⁶</p> <p>VARIG ran a prevention program over a decade until the company's bankruptcy in 2005.⁷⁷</p>
Chile	Yes	No	N/A	National response identifies motor-taxi drivers as one of the most exposed groups (2006 UNGASS Report).
Colombia	Yes	N/A	N/A	
Costa Rica	Yes	N/A	N/A	<p>National prevention activities for cross border migrants were started in 2007 (2008 UNGASS Report).</p> <p>At the regional level, Costa Rica participates in the MesoAmerican project which involves strengthening care to mobile and most-at-risk populations in border areas (2006 UNGASS Report).</p>
Dominica	Yes	N/A	N/A	
Dominican Republic	Yes	Yes	N/A	Transport sector is included in the national strategy and has an earmarked budget. A survey was conducted for Haitian immigrants. Prevalence among them in 2004 was 1.3% (2008 UNGASS Report).
Ecuador	Yes	No	N/A	Mobile populations are recognized as at-risk (2008 UNGASS Report).
El Salvador	Yes	Yes	N/A	<p>Transport is included in the national strategy (2008 UNGASS Report).</p> <p>The Ministry of Health Public Health & Social Care (MSPAS) is developing the component of prevention of STD /HIV-AIDS in mobile populations, including the borders of El Amatillo, San Cristóbal, Anguiatú, La Hachadura, Las Chinamas and El Poy, the harbours of Acajutla, La Libertad, and La Unión, the international airport of Comalapa and the station of Paso de Lourdes in Colón. This programme foresees a direct benefit to 60,000 persons and an indirect benefit to 200,000 persons. IEC workshops care carried out for health workers, truck and train drivers, commercial Sex Workers (CSW), HSH, money changers, owners of commercial premises, owners of hotels, motels, accommodation facilities, motels, brothels, bars, restaurants, young students and youngsters (2006 UNGASS Report).</p>

⁷⁵ Sheri Lippman, et al. 2007. Mobility and its liminal context: Exploring sexual partnering among truck drivers crossing the Southern Brazilian border. *Social Science and Medicine* 65(12): 2464–2473.

http://www.popcouncil.org/projects/abstracts/SSM_65_12.html

⁷⁶ http://www.weforum.org/pdf/Initiatives/GHI_HIV_VW_AppendixA.pdf Accessed on 3/11/08.

⁷⁷ <http://www.weforum.org/en/initiatives/globalhealth/Case%20Study%20Library/Varig> Accessed on 3/11/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Grenada	N/A	N/A	N/A	
Guatemala	Yes	No	N/A	Strategy for cross-border migrants and mobile populations (2006 UNGASS Report). Most HIV cases appear to be concentrated in urban areas and along the transport and commercial routes that cross the country. ⁷⁸
Guyana	Yes	N/A	N/A	Migrant workers are considered most-at-risk and were targeted for BSS in 2005 (2008 UNGASS Report).
Haiti	Yes	N/A	N/A	Surveillance was conducted targeting vulnerable groups including migrants (2008 UNGASS Report).
Honduras	Yes	N/A	N/A	Prevention programs for mobile populations and migrants. Seafarers are also considered at risk (2008 UNGASS Report). In 2003-2004, an initiative that promotes national strategies for the prevention of HIV/AIDS among mobile and migrant groups (national and international haulage drivers, passengers and people emigrating to the United States) was developed. This project, known as 'HIV/AIDS prevention among mobile and migrant groups along the border corridor: La Entrada, Copán – Agua Caliente, Ocotepeque' was carried out under the coordination of the Health Secretariat's STI/HIV/AIDS department. The project received the technical and financial support of the Joint United Nations Program on HIV/AIDS (UNAIDS), the Mexican national public health institute and IMPSIDA (Mesoamerican Initiative for the Prevention of HIV/AIDS) (2006 UNGASS Report).
Jamaica	Yes	N/A	N/A	Taxi drivers are recognized as at risk.
Mexico	Yes	No	N/A	Interventions were carried out for mobile populations (2008 UNGASS Report). Interventions for cross-border migrants (2006 UNGASS Report). Truck drivers are considered at risk. A survey conducted by Bronfman et al. shows that 90% of the truckers resided in either Guatemala or Mexico. Normally truckers traveled alone on a trip (usually 13 days). On the border, 50% frequented bars and cantinas to exchange with others, to consume alcohol and to meet sexual partners. Only 20% of truckers who had participated in the workshops perceived themselves at risk for contracting HIV or other STIs. 70% of married truckers did not use condoms with their wife (partner) even though 40% had extra-marital sex including sex with commercial sex workers. ⁷⁹

⁷⁸ AIDS Epidemic Update 2005. http://www.unaids.org/epi/2005/doc/EPIupdate2005_html_en/epi05_09_en.htm

⁷⁹ M. Bronfman. 2000. Impact of HIV prevention and condom promotion activities for truck-drivers on the Mexico-Guatemala border. National Institute for Public Health. <http://gateway.nlm.nih.gov/MeetingAbstracts/ma?f=102238401.html>

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Nicaragua	Yes	No	N/A	Mobile populations are considered at risk (2008 UNGASS Report). Strategy for cross-border migrants. Studies carried out among mobile populations reveal that there is a low level of awareness of the risk of contracting an STI or HIV and that risky, unprotected sexual behavior exists (2006 UNGASS Report).
Panama	Yes	N/A	N/A	Mobile populations are considered at risk (2006 UNGASS Report). USAID is working with several Central American countries to formulate a regional approach to HIV/AIDS prevention for mobile populations. The activity targets geographic 'hot spots' where mobile populations converge, such as truck routes, border towns, ports, and trade centers. 'Fronteras Solidarias' (Shared Borders) Program has intervention activities in border towns (Costa Rica border). ⁸⁰
Paraguay	Yes	N/A	N/A	Strategy for cross-border migrants (2006 UNGASS Report).
Peru	Yes	No	N/A	
Saint Kitts and Nevis	Yes	N/A	N/A	(2006 UNGASS Report)
Saint Lucia	N/A	N/A	N/A	Some intervention with taxi drivers (2008 UNGASS Report).
Saint Vincent and the Grenadines	Yes	N/A	N/A	Minibus and taxi drivers are considered at risk and targeted for intervention activities. 17% of this group reported having received HIV test and results in the last 12 months. Only 40% of respondents rejected all three myths about HIV transmission (2008 UNGASS Report).
Suriname	Yes	No	N/A	Cross-border migrants and migrant workers are considered at risk (2008 UNGASS Report).
Trinidad and Tobago	Yes	N/A	N/A	
Uruguay	Yes	N/A	N/A	
Venezuela	Yes	Yes	N/A	(2006 UNGASS Report)
Middle East and North Africa				
Algeria	Yes	N/A	N/A	Mobile populations and transport workers are considered as most-at-risk (2008 UNGASS Report). A clear relationship between migration and HIV/AIDS in the town of Tamanrasset is shown in the fact that 52.45% of the reported cases of HIV infection were mobile people originating from Sub-Saharan Africa.

⁸⁰ http://www.usaid.gov/our_work/global_health/aids/Countries/lac/panamabrief.pdf Accessed on 3/10/08.

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
				The cross-border population represented mainly by Touareg who are constantly on the move, the working population originating from the north of the country, transporters who may or may not be involved in the grey market, soldiers, and finally, the female sex workers who often come from towns in the north of the country (2006 UNGASS Report).
Djibouti	N/A	N/A	N/A	The World Bank's Djibouti TB & Malaria Control Project targets truck drivers and workers in Port of Djibouti. ⁸¹
Egypt	N/A	N/A	N/A	
Iran, Islamic Rep. of	Yes	N/A	N/A	Interventions and surveillance are envisaged for truck drivers (2006 UNGASS Report).
Jordan	Yes	Yes	N/A	Transport workers are recognized as at risk. Transport sector activity is funded by National AIDS Program budget (2008 UNGASS Report).
Lebanon	N/A	N/A	N/A	
Libyan Arab Jamahiriya	N/A	N/A	N/A	
Morocco	Yes	No	N/A	Transport sector workers are considered as high risk. Prevention activities and stigma reduction program have targeted mobile and road workers. National policy targets seafarers and truckers (2008 UNGASS Report).
North Sudan	Yes	N/A	N/A	Truck drivers are considered most-at-risk. A survey that was conducted among long distance truck drivers reported a lower HIV prevalence of only two HIV positive samples out of 374 that were tested (0.5%), compared to 1% among this sub-population from the national survey of 2002. Virtually all those who were interviewed had heard of HIV and AIDS but again the level of comprehensive knowledge was reported to be very low. Approximately 36% were of the view that mosquitoes can spread HIV and almost three-quarters would not buy food from a person known to be living with HIV. Furthermore, almost one-quarter of those interviewed had neither heard about, nor seen a condom while only 9% had used condoms. National prevention and surveillance activities have targeted truck drivers (2008 UNGASS Report).
South Sudan	Yes	No	N/A	Truck drivers are considered most-at-risk, but no interventions have targeted this group (2008 UNGASS Report).
Syrian Arab Republic	N/A	N/A	N/A	
Tunisia	Yes	Yes	N/A	Transport sector is included in the national strategy (2008 UNGASS Report).
Yemen	N/A	N/A	N/A	

⁸¹ Presentation on World ADIS Day event 2007 by Dr Sameh El-Saharty.
http://siteresources.worldbank.org/INTTSR/Resources/Djibouti_AIDS_WAD07_finalppt.ppt

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Eastern Europe and Central Asia				
Albania	N/A	N/A	N/A	Mobile population is recognized as a risk group and targeted interventions are planned (2006 UNGASS Report).
Armenia	Yes	N/A	N/A	Prevention activities targeted mobile populations in 2006 (2008 UNGASS Report).
Azerbaijan	N/A	N/A	N/A	
Belarus	Yes	N/A	N/A	
Bosnia and Herzegovina	N/A	N/A	N/A	
Bulgaria	Yes	N/A	N/A	
Croatia	Yes	N/A	N/A	Interventions targeted mobile populations and migrant workers. Migrant workers' prevalence was reported to be 0.2-0.6% (2008 UNGASS Report).
Georgia	Yes	N/A	N/A	IOM has been working with labor migrants in HIV/AIDS prevention through IEC (2006 UNGASS Report).
Kazakhstan	N/A	N/A	N/A	
Kosovo	Yes	N/A	N/A	Mobile populations are considered most-at-risk (2008 UNGASS Report).
Kyrgyzstan	Yes	Yes	N/A	Ministry of Transport and Communications took an active part in the implementation of the Government Program to Prevent HIV/AIDS, Sexually and Parenterally Transmitted Infections in Kyrgyz Republic for 2001-2005. Strategy for cross-border migrants is in place (2006 UNGASS Report). Ministry of Transport and Communication participates in Government Program to Prevent HIV/AIDS. Strategy for cross-border migrants is in place (2006 UNGASS Report).
Moldova, Rep. of	Yes	N/A	N/A	Truck drivers are considered most-at-risk and targeted for interventions (2008 UNGASS Report). Harm Reduction strategy of the National Program on Prevention and Control of HIV/AIDS and STIs for the 2001-2005 period of time carried out the exchange of needles and condom distribution in most-at-risk populations including truck drivers (2006 UNGASS Report).
Poland	Yes	Yes	N/A	Ministry of Transport is implementing a national program (2008 UNGASS Report). Ministry of Transport and Infrastructure is part of the national strategy. A media campaign for cross-border areas was realized in 2004 (2006 UNGASS Report).

Country	National multi-sectoral strategy	Transport sector included in national strategy*	Transport agency involved in HIV activity**	Transport sector HIV activity***
Romania	Yes	N/A	N/A	Ministry of Transport collaborates with the National Commission (2006 UNGASS Report).
Russian Federation	N/A	N/A	N/A	
Serbia	Yes	N/A	N/A	National strategy includes prevention among mobile populations (2008 UNGASS Report).
Slovak Republic	N/A	N/A	N/A	
Tajikistan	Yes	N/A	Yes	Moto-taxi drivers are considered as most-at-risk. National response includes strategy on cross-border and mobile populations (2006 UNGASS Report). Ministry of Transport works with ADB to implement border rehabilitation project and requires all civil works contractors to include information in local languages on the risks of STIs (that is HIV/AIDS in health and safety programs for all construction workers at campsites). ⁸²
Turkey	Yes	N/A	N/A	
Turkmenistan	N/A	N/A	N/A	
Ukraine	Yes	N/A	N/A	
Uzbekistan	N/A	N/A	N/A	

⁸² <http://www.adb.org/gender/practices/infrastructure/taj002.asp> Accessed on 3/11/08.

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