

Transport assessment

**ON THE UNITED NATIONS COMPOUND,
Gigiri, Kenya**

Assessment and Recommendations

November 2004

Step-by-Step (SBS)

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Introduction/ Mandate

UNEP GC18/10 inter alia calls on UNEP to “*recommend strategies for the promotion of the best practices in environmental housekeeping for use by UNEP, and advise and encourage the rest of the UNEP system to develop and apply similar strategies for continually improving their own environmental performances and promoting sustainable development, with the aim of (a) reducing waste, (b) recycling, (c) conserving energy, water, paper and other natural resources*”.

Subsequently, in 2001 the Board of Auditors to the United Nations General Assembly suggested that UNEP take the initiative in bringing to the attention of the UN system Chief Executives Board (CEB) the possibility of developing a framework to implement this environmental policy in the UN system. This recommendation requests UNEP to develop a policy framework for managing its own operations in an environmentally friendly manner (recycling, reducing energy consumption, considering environmental aspects in procurement, etc.) and to share it with other agencies in the UN system.

It is in this spirit that the “Step-By-Step” (SBS) group was established in 2002 to “green” the United Nations (UN) compound in Gigiri. SBS is composed of Nairobi-based professionals from a variety of UN agencies, and its objective is to improve the corporate environmental performance of the compound. The UNEP Executive Director backed this initiative (Log 860/03) in April 2003 and the Step-by-Step group began undertaking in-depth assessments of the environmental impact of the UN compound, as endorsed by the ED (memo from B. Kante to K. Toepfer of 24 July 2003 on “*greening the United Nations compound*”). The present report on transport is an element of SBS’s overall assessment of UN compound activities that also focus on energy, water and waste management.

Summary

In line with UNEP Governing Council decision 18/10 on good environmental housekeeping within UNEP, and following Executive Director approval (memo of 24 July 2003 on “*greening the United Nations compound*”), Step-by-Step undertook an assessment of activities on the UN compound with a focus on waste, energy, water and transport. This assessment aims at providing an overall picture of the transport situation on the compound and presenting a number of preliminary suggestions to improve the current situation.

After describing the means of transportation by the UN staff and pattern of behavior, the report provides conclusions practical recommendations to improve the current situation: create an environment conducive for UN personnel who car pool; promote public transit usage; establish staff buses for profession staff; encourage use of UN petrol station; continuation of UN petrol station fuel tax to support greening projects; promote use of bicycle and raises people awareness.

The report concludes with the necessity to implement a comprehensive Environment Management System (EMS) for the transport, and more largely for all activities on the UN Gigiri compound. This is essential to implement identified priorities of actions, allocate responsibilities and stick to goals.

1. Transport assessment

This assessment aims at providing an overall picture of the transport situation on the compound and presenting a number of preliminary suggestions to improve the current situation.

The assessment aims at finding what are the transport facilities and options available to UN personnel, their transportation practices, and consequently their impact on the environment while commuting between home and their work place. The results of this assessment can be used to raise staff awareness on the impact of their means of transport on the environment, as well as to provide information and advise to UNON on how the current transportation situation may be improved.

1.1. Location of the UN compound and UN personnel residential patterns

The UN compound at Gigiri in Nairobi is located in a residential area 10km north from the city center. The main access from the south (City Center) and from the North to the compound is Limuru Road, off which the United Nations Avenue transects. The compound borders the embassy of the United States (north), Karura Forest (east and south) and ICRAF (west).

Most UN staff members (both international and locally recruited staff) live some distance from the UN compound for different reasons. Two key factors for this include, the fact that the Gigiri area is prohibitively expensive, especially for most of the local staff and the lack of availability of housing in the Gigiri neighbourhood. For these and other reasons, UN personnel generally reside in several different Nairobi neighbourhoods. The local staff and some others tend to live in the north, east and south parts of Nairobi (for example: Thika, South B & C, Nairobi West, Bahati, Kimathi, Uhuru, Jericho, Buruburu, Umoja I&II, Komarock, Kayole Saika, Njiru, RuaI, Mari Akani, Imara Saima, Sonhocm, Plains views, Villa Franka, Embakasi). The international staff tends to live in the more upmarket areas to the north and west (for example: Loresho, Runda, Spring Valley, Muthaiga, Westlands, etc.). At this stage of the assessment, the exact residential patterns UN personnel (local and international) is not clear, as the department responsible for this information, UN security, have yet to undertake a comprehensive review.

1.2. Means of transport used by UN personnel

To commute to and from work, UN personnel use a diversity of transportation methods: some have personal vehicles, others use public transport such as minivans (*matatus*) with 14 passenger seats, buses with 62 passenger seats and taxis. There are some general differences between the transportation behavior patterns of the international and local general service staff. The first tend to use predominantly personal vehicles, while the latter use more frequently public transport or a combination of such and the UN-provided staff buses. This difference can be explained in part by income disparities (the international and professional staff earn on average four times more than local general service staff), but also because of the provision of public transport facilities for the local staff only by UNON, and the existence of convenient *matatu* transport to and from neighborhoods where local UN personnel are likely to reside.

A. Buses and other public transport provided by UNON

UNON provides 13 buses for local staff only. The buses arrive at 8:00 AM and leave at 4:45 P.M. from the UN Gigiri main compound. Professional staff are prohibited from using these buses due to high insurance costs. Each UN agency benefiting from the UNON bus service pays 82% of the total cost and the agency staff pay the remaining 18% (usually 660 Ksh per month). This is a serious subsidy when compared to the public transport (single journey from the “UNEP” minivan stage to city center by “matatu” costs as at least 20 Ksh, equivalent to a minimum of 920 Ksh per month, assuming 23 working days a month). About 850 local staff are registered to use the UNON bus service, but only an average of 800 local staff use the buses daily. This number varies because of holidays, retirements and/or the addition of new employees. The bus usually arrives at the UN compound full in the morning and leaves ¾ full in the afternoon, as some local staff find other means to return home, for a variety of reasons. In the evenings, UNON provides minivans for staff having to work late. These vans leave at 7P.M. and 8:30P.M.

UNON also provides a special bus with a capacity of 50 persons to UN security to transport the approximately 50 UN security personnel.

The 300 subcontracted employees operating on the UN compound, consultants, interns and the international staff are not permitted to use the UNON-administered buses. Subcontractors, consultants and interns are not allowed for practical insurance reasons. Indeed, if there is any accident they can’t be covered by UNON. This not a rhetorical case: in 1991, a consultant was injured in a bus accident and never compensated.

Interns and consultants do not have access to the UNON buses either, but are entitled to a specific 30-seat minibus, which runs a route between Nanak house in the city center and the UN compound. This minibus arrives at 8:30 AM and leave at 4:45 PM from the UN Gigiri compound.

In additional to these regularly scheduled UN buses and minivans, there are 20 official UN vehicles provided by UNON or other UN agencies (min-vans, pick-ups, etc.) that transport goods or people and operate under request by the staff of the various UN agencies.

During conferences and other meetings, officials usually arrive at the UN compound by minivan; either provided by the travel agency Bunson or the delegates’ hotel. This system looks quite efficient when a UN agency is making a block booking in one hotel. The hotel is therefore often willing to provide the transport either freely or at very reduced cost.

Table1: LIST OF PEOPLE AND AGENCIES BENEFITING FROM THE UN BUSES

STAFF BUS TRANSPORTATION FOR THE MONTH OF FEBRUARY 2003					
AGENCY	Number of staff	%Contribution	Amount (Ksh)	Cost Distribution	
			Payable by agency	By staff (18%)	By agency (82%)
UNEP	161	18.9	574,522	103,414	471,108
UNON	246	28.8	883,327	158,999	724,328
UN-HABITAT	71	8.3	254,944	45,890	209,054

UNICEF-ESARO	25	10.9	89,769	16,158	73,611
UNICEF-KCO	39	5.0	140,040	25,207	114,833
UNICEF-OLS	26	3.1	93,360	16,805	76,555
UNICEF-SOMALIA	28	3.3	100,541	18,097	82,444
UNESCO	31	3.6	111,314	20,036	91,277
ICAO	21	2.5	75,406	13,573	61,833
WFP	63	7.4	226,218	40,719	185,499
WFP-SOMALIA	26	3.1	93,360	16,805	76,555
UNSO	4	0.4	10,772	1,939	8,833
WHO-SOMALIA	12	1.1	43,089	7,756	35,333
UNIC	3	0.4	10,772	1,939	8,833
UNOPS (UNDP)-Great Lakes	4	0.5	14,363	2,585	11,778
UNOCHA/IRIN	9	1.1	32,317	5,817	26,500
UNDCP (UNODC)	3	0.4	10,772	1,939	8,833
UNOPS	4	0.5	14,363	2,585	11,778
UNOSRSG	4	0.5	14,363	2,585	11,778
UNDP	74	8.7	265,716	47,829	217,887
TOTAL	854		3,059,329	550,679	2,508,650

B. Minivans or “matatu”

Most of the subcontracted personnel commute using the *matatus*. Route numbers 106, 107 and 108 that go from city center along Limuru Road to UNEP Gigiri, Gachie, Runda, Banana, etc., are the most popular. The *matatus* drop their UN destined passengers at the Limuru Road and UN Avenue junction or at Village Market and the staff must walk the remaining distance to the UN Gigiri complex. The locally recruited staff uses *the matatu* only in very special cases, when it was impossible for them to use the public transport provided by UNON (for example when the staff take a half day off).

C. Personal private vehicles

Some local general service and professional staff and most of the international staff commute to work using their private vehicles.

D. Taxis

Some UN personnel, especially new internationally recruited staff and consultant take taxis to and from work. The cost of a taxi trip from UN Gigiri to the city center is about 400-600KSh, approximately 25 times the cost of taking *matatus*. The taxi is expensive by Kenyan standards, and it is mainly international staff or consultants who make use of this service, while the local staff are more likely to take *matatus* or buses. International staff often use taxis instead of taking *matatus* in part because UN security advise all personnel to avoid *matatus* as a mean of transport due to security concerns.

One taxi company, “Jim Cab,” operates out of the Warwick Center opposite the UN Gigiri complex, although UN personnel often use other taxi outfits. Taxis are allowed to

drop and pick up their passengers in the visitor parking area beside the main UN entrance gate.

Some international staff members have their own entitled driver who transports the staff member directly to and from work. This is a cheap, alternative means of transport for the UN staff as the driver costs approximately US\$150 month and may also have some mechanic skills or provide additional services.

E. Bicycle and motorbikes

There are a few UN international members, consultants, interns and contracted workers who commute via bicycle (about 10) or motorcycle (about 2) to and from work. No locally recruited staff was recorded commuting via bicycle.

2. In-depth analysis of the means of transportation

2.1. Methodology

In addition to consultations with the UNON transport department, UNON security and the staff at the petrol station, data was collected through the physical counting of vehicles at the gate entrance. Between 28 and 29 January 2004, from 7:00 AM until 10:00 AM and from 4:00 PM until 7:00 PM, one person posted at the entrance gate counted and classified the number of vehicles entering and leaving the UN compound.

2.2. Limitation of the methodology

- Double counting of vehicles may have occurred because vehicles may have left and re-entered the UN compound.
- The purpose of the entrant to the compound and his or her designation (staff/visitor/conference participant) is unknown.

2.3. Results

A. Data: number of vehicles

Assessment of transport at the UN complex, in Gigiri, Nairobi, Wednesday 28/01/04.														
Vehicles	7.00-7.30		7.30-8.00		8.00-8.30		8.30-9.00		9.00-9.30		9.30-10.00		Total morning	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Cars with 1 person	29	7	65	11	175	12	113	18	102	13	60	18	544	79
Cars with 2 persons	9	4	29	9	36	7	24	10	30	0	20	1	148	31
Cars with 3 or more people.	1	0	6	0	10	3	6	2	12	0	6	0	41	5
Minibuses	0	4	2	1	2	1	6	1	4	1	3	2	17	10
Buses	1	0	1	0	10	0	1	0	0	0	0	0	13	0
Pedestrians	53	6	45	12	99	2	34	3	17	3	12	1	260	27
Lorry	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Motorbikes	1	0	0	0	3	0	0	0	0	0	0	0	4	0
Pickups	2	1	0	0	1	0	2	3	0	0	2	0	7	4
Total	97	22	148	33	336	25	186	37	165	17	103	22	1035	156

Assessment of transport at the UN complex, in Gigiri, Nairobi, Thursday 29/01/04.
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Vehicles	7.00-7.30		7.30-8.00		8.00-8.30		8.30-9.00		9.00-9.30		9.30-10.00		Total morning	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Cars with 1 person	66	20	120	20	168	29	162	34	88	12	57	14	661	129
Cars with 2 persons	11	0	31	3	69	5	43	11	38	5	32	3	224	27
Cars with 3 or more people.	4	0	33	3	10	1	3	1	11	1	7	1	68	7
Minibuses	1	0	0	0	6	0	7	0	5	1	1	0	20	1
Buses	1	0	1	0	13	0	2	1	0	0	1	0	18	1
Pedestrians	53	6	45	12	99	2	34	3	17	3	12	1	260	27
Motorbikes	2	0	0	0	4	0	2	1	1	0	1	0	10	1
Lorry	1	0	0	0	1	0	1	0	2	0	1	0	6	0
Pickups	1	1	2	1	1	2	0	3	0	0	0	0	4	7
Total	140	27	232	39	371	39	254	54	162	22	112	19	1271	200

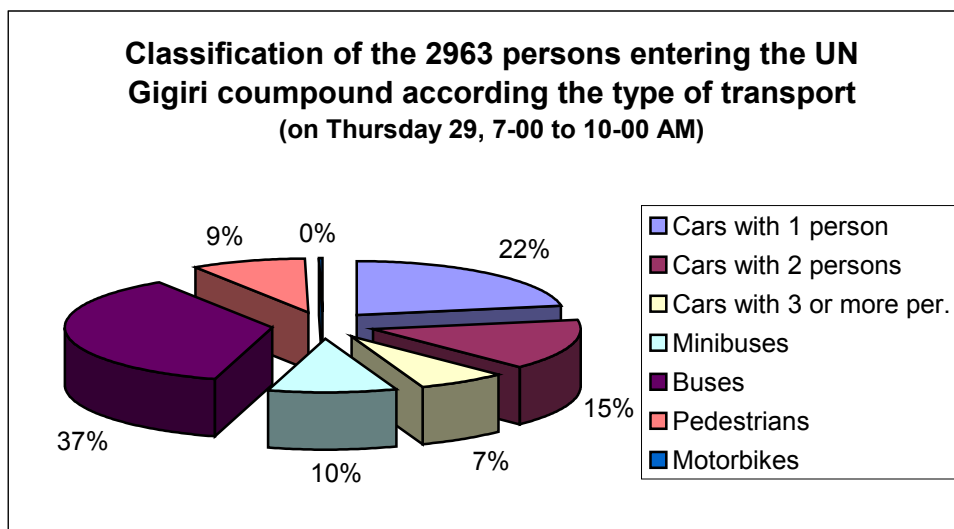
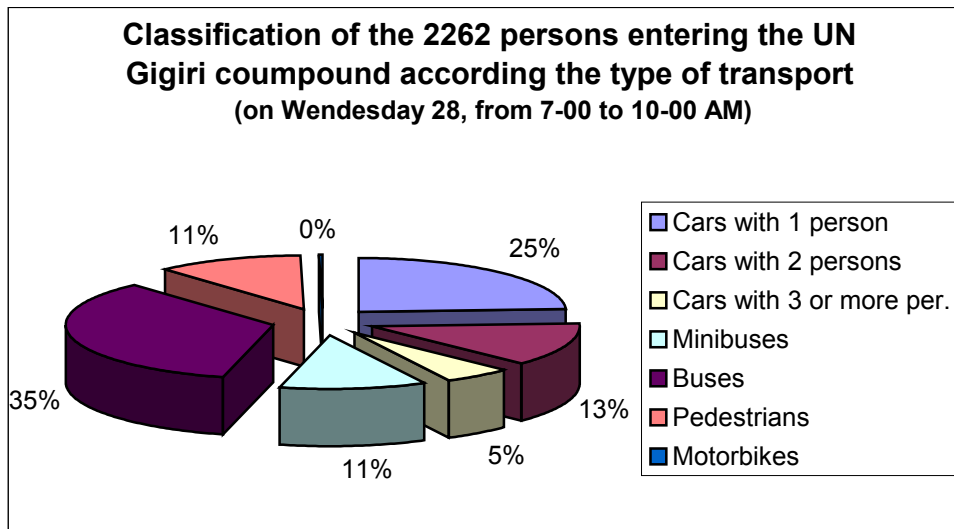
Vehicles out of the complex from 4.00- 6.45p.m on Wednesday 28/01/04						
Vehicles	4.00-4.30	4.30-5.00	5.00-5.30	5.30-6.00	6.00-6.45	TOTAL
Cars with 1 person	100	107	70	39	83	399
Cars with 2 persons	41	36	11	20	11	119
Cars with 3 or more people	0	5	2	0	3	10
Minibuses	2	0	3	1	1	7
Buses	0	13	0	0	0	13
Pedestrians	20	47	50	10	5	132
Motorbikes	0	0	0	0	1	1
Lorry	0	0	1	0	0	1
Pickups	0	2	0	1	0	3
Total	163	210	137	71	104	685

Vehicles getting out of the UN complex 4.00-6.45 on Thursday 29/01/04						
Vehicles	7.00-7.30	7.30-8.00	8.00-8.30	8.30-9.30	9.30-10.00	TOTAL
Cars with 1 person	93	75	30	45	21	264
Cars with 2 persons	19	64	27	38	22	170
Cars with 3 or more people	3	1	3	0	1	8
Minibuses	2	0	4	2	2	10
Buses	0	14	1	0	0	15
Pedestrians	50	60	53	24	16	203
Motorbikes	1	0	0	1	1	3
Lorry	1	0	0	0	0	1
Pickups	1	0	1	0	1	3
Total	170	214	119	110	64	677

B. Interpretation: number of people

The following analysis is based on a comparison between the different means of transport used to enter the UN compound. To compare the means of transport, method of transport is equated to a human figure as follows:

1. Car with one person = 1 person
2. Car with two persons = 2 persons
3. Car with 3 persons = 3 persons
4. One mini bus = 15 persons
5. One bus = 55 persons
6. One pedestrian = 1 person
7. One motorbike = 1 person
8. One bicycle = 1 person
9. Lorries and pick-up trucks are excluded from these statistics due to the lack of alternative transportation methods.



C. Petrol use at the UN petrol station

Month of 2003	E-card	Cash	Total amount in Ksh.	Cost per liter in Ksh	Total amount in liters
October	317,000	50,000	367,000	37.80	9,710
November	304,000	50,000	354,000	39.65	8,930
December	293,000	51,000	344,000	38.18	9,010

Only UN professional staff are entitled to use the UN petrol station, as agreed between the UN and the Kenyan government due to the fact that the fuel is duty free. The only other people allowed to use the petrol station are diplomatic personnel.

3. Conclusion and key areas for improvement

The transport situation at the UN compound remains quite consistent from day to day:

- About 47% of UN staff commute to and from work by public transport. In reality, this percentage is made up of general staff only, who comprise approximately 50% of all the staff at the UN compound. This means that most of the general staff use public means of transport, which highlight the necessity that these public means be well maintained and environmentally friendly.
- Private means of transport account for roughly 44% of the staff commuting means. This includes close of 100% of the professional staff, as they almost never access public means of transport. These result show that 60% of those who travel to and from work via public means and 35% commute as two occupants, one of who may well often be a paid driver. Approximately 15% of staff car pool (3 or more occupants) to and from work.
- It appears that there is a long way to go to change the practices of those who commute by private means, as the numbers indicate that UN compound staff prefer having the flexibility and convenience of using their own vehicle. In addition, and in part attributable to the poor condition of many Nairobi roads, one out of 3 private vehicles are four-wheel drive and high-oil consuming.
- This preference for private vehicle usage among UN personnel likely exists because it enables drivers to come and leave at any given hour, and to arrange personal affairs (such as shopping or dropping off and picking up children from school) en route, but is also due to the lack of public transport alternatives offered to the professional staff.
- In addition, traffic congestion in the vicinity of the UN Gigiri compound, especially since the opening of the American Embassy, is an issue that also needs to be addressed.

4. Recommendations

The following are recommendations that could be taken to improve the current situation:

4.1. Create an environment conducive for UN personnel who car pool

The number of cars coming to the UN compound should be reduced to prevent traffic jams and decrease fuel consumption, especially in the morning when UN personnel report to work and in the evening when they leave for home. The statistics reveal that staff arrive at work during roughly similar hours, and although they depart work at differing times, they also commute from a small selection of neighbourhoods in Nairobi.

The opportunity therefore exists to expand the existing number of UN professional staff members using car pool means to commute. This would have additional safety benefits, as driving with a higher number of vehicle occupants increases security.

It is recommended that:

- (a) public awareness be promoted,
- (b) opportunities created (UNON bulletin board) and
- (c) incentives introduced (such as cheaper UN petrol station fuel costs for car poolers), in this regard.

4.2. Promote public transit usage among staff members

UNON security advisories contribute to a negative image of the safety record of Nairobi public transport among staff member, particularly those recruited internationally. Security announcements during briefing meetings advising staff to avoid *matatus* and other means of public transport are not necessarily warranted. UNON security should look into revising its advisory warnings, and at the same time, consider ways of providing more secure means of public transport to all.

4.3. Establish staff buses for profession staff

Like other government and private sector organizations throughout the world who subsidize environmentally sustainable transportation for their employees, UNON could introduce buses or minibuses for UN professional staff members. A higher usage fee reflecting the income level of professional staff could be charged, allowing UNON to recuperate the extra costs of increasing the number and route of staff buses. Professional staff could carry out their own survey with the possible assistance of the United Nation Staff Transport Committee.

4.4. Encourage use of the lead free gasoline and low sulfur at the UN petrol station

A further area for public awareness raising is that of fuel consumption. As fuel at the UN petrol station is lead free and low on sulfur, the implication of this should be advertised to staff in terms of improved health and the link to UNEP's global partnership for clean fuels and vehicles.

4.5. Continuation of UN petrol station fuel tax to support greening projects

The price of the gasoline at the UN petrol station includes a small tax that helped finance the construction of the new UN recreational center at a cost more than one million euros. This tax should be continued with revenue accruing to UNON for projects addressing energy consumption on the UN compound in particular (i.e. implementation of a carbon neutral, energy alternative or energy saving initiative).

4.6. Promote bicycle use among UN personnel in a safe and secure manner

This can be done in the first instance by:

- (a) Improving cyclist facilities (provision of bicycle storage areas or locks, as well as a change room with showers and lockers) and
- (b) Improving infrastructure for bicycles with a long-term plan to construct bicycle paths to nearby residential areas (such as Gigiri, Runda, Muthaiga, Spring Valley and Westlands).

4.7. Raise awareness of what people can do to improve the transport situation

UN personnel who are already making a difference (such as those commuting with electric-powered vehicles) could be provided as good examples for the promotion of responsible transportation.

4.8. Implementation of a comprehensive transport management system

Conventionally, transport initiatives on the UN Gigiri compound have been made on a very *ad hoc* basis. Developing and implementing a targeted and systematic transport management system based on environmentally and socially sound principles is necessary in order to minimize the impacts of UN activities on the environment. A comprehensive Environment Management System (EMS) is essential to implement identified priorities of actions, allocate responsibilities and stick to goals. The implementation of the EMS is the subject of a separate proposal.

Annex 1 – Transport contact list

Institution	Name	Room	Tel
UNON, Procurement, Travel and Shipping Section	Josie Villamin	W-243	20-62-3584
UNON, Facilities Management and Transport Section	Barnaby Jones	G-208	20-62-3901
UNON, Building and Grounds Management Unit	Jack Howard	G-204	20-62-1075
UNON, Chief of the Office of the Director General	Paul Akiwumi	R-205	20-62-3177
UNDP Sanitation Programme (Sustainability/ Energy and Environment Unit)	Chris Gakahu, Ass Res. Rep	Q-332	20-62-4458
UNEP, Partnership for clean fuels and vehicles	Wendy Jackson Rob Jong	S-309 S-318	20-62-4621 20-62-4184
UN Staff Transport Committee	Zebeede Omusundi Resource person	T-340	20-62-3388
UNEP, DPDL/DEPI Step-by-Step transport	Denis Ruyschaert Matthew Woods	T-328 T-219	20-62-3594 20-62-4629
UN-HABITAT, Water, Sanitation & Infrastructure Branch	Brian Williams	U-126	20-62-3916
UN-HABITAT, Shelter Branch	Ulrik Westman	M-111	20-62-3116

More information about Step By Step (temporary website location):
<http://www.ulrikwestman.net/sbs>