

Bangladeshi Migrant Workers in Malaysia's Construction Sector

Skills training and language programmes for prospective international workers should be introduced or otherwise expanded

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The 1980s and 1990s were characterized by an absorption of foreign labour into the Malaysian economy that was unprecedented in terms of numbers and rapidity. From approximately 500,000 foreign workers in 1984 (Ministry of Human Resources, 1991) their numbers shot up beyond 1.2 million in 1991 (Pillai, 1992) and 2.4 million in early 1998 (*Utusan Malaysia*, 1998). Labour voids manifested particularly during the high-growth period of 1988-1997 were the main inducing agent. Construction was among the sectors which came to rely heavily on foreign workers owing to a confluence

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of factors: Malaysian youth's aversion to low-status work, an expanding manufacturing sector which was offering much better employment conditions, labour attrition, widening opportunities for tertiary education, a lower birth rate and the emigration of Malaysian workers to high-wage countries such as Japan and Singapore (Abdul-Aziz, 1995). The Construction Workers Union estimated that in 1987 about 60 per cent of the 300,000-350,000 workers in the industry were immigrants (Gill, 1988). Pillai (1992) estimated that, by 1991, 70 per cent of the construction workforce comprised immigrants, while the author's own study (Abdul-Aziz, 1995) conducted in 1995 found that, in the major cities of Georgetown, Kuala Lumpur and Johor Bahru, foreign workers made up in excess of 80 per cent of site operatives. During this time, the nationality of site operatives, especially for the undocumented, diversified in tandem with the augmentation of the labour movement (see [table 1](#)). As for legal entry, at the time of writing, Malaysia had granted to five countries, namely Bangladesh, Indonesia, Pakistan, the Philippines and Thailand, permission to export their surplus construction labour to Malaysia.

Whether they work as part of the regularized (legal) or clandestine (illegal) foreign construction workforce, workers from Bangladesh represent the second largest group, i.e. one fifth of the foreign site operatives in Malaysia, second only to Indonesians (see [tables 1](#) and [2](#)). This article describes the findings of a completed study that examined foreign site operatives in Malaysia. While the study was not confined to any nationality group, this article focuses on Bangladeshis. It describes some of their national attributes that have influenced their position in the local construction labour market. While the employers' viewpoint was solicited for this purpose, the article also dwells on the viewpoint of the surveyed Bangladeshis concerning the work treatment to which they were subjected. It begins, however, by tracing their migration to Malaysia.

Methodology

This article is based on a study of foreign site operatives in Malaysia. It was funded by Malaysia's Ministry of Science, Technology and the Environment under the Intensification of Research in Priority Areas programme. Fieldwork took place between 1996 and 1997 prior to the "Asian Financial Crisis", which began in July 1997. Three different sets of questionnaire-based surveys were conducted on 58 construction employers, 1,342 foreign and 768 local site operatives in Penang, Klang Valley and Johor Bahru, the three largest urban growth poles in Peninsular Malaysia.

Table 1. Number of illegal foreign nationals caught by Malaysian police, by country of origin and sector, February 1993 to 1996

Country of origin	Type of work				Total	
	Construction		Non-construction		Number	Per cent
	Number	Per cent	Number	Per cent		
Indonesia	47,948	77.3	30,152	42.3	78,100	58.5
Bangladesh	11,130	17.9	20,843	29.2	31,973	24.0
Myanmar	1,290	2.1	11,158	15.6	12,448	9.3
Thailand	600	1.0	5,661	7.9	6,261	4.7
Others ^a	1,079	1.7	3,536	5.0	4,615	3.5
Total	62,047	100	71,350	100	133,397	100

Source: Fieldwork and the Malaysian Police Force.

^a Includes Afghanistan, Cambodia, China, Ghana, Nepal, Sri Lanka and Sudan, among others.

Approximately 20 sites randomly selected from the same sample locations were observed for three months to collect qualitative information. The research also entailed interviewing government agencies, trade unionists, foreign embassy officials and journalists. For this article, data on 141 surveyed Bangladeshis were extracted. Of all the interviews, the one with the Labour Counsellor at the Bangladesh High Commission was particularly pertinent for the article.

Table 2. Issuance of temporary work passes to foreign workers in Peninsular Malaysia, by country of origin and sector, July 1992 to December 1995

Country of origin	Type of work				Total	
	Construction		Non-construction		Number	Per cent
	Number	Per cent	Number	Per cent		
Indonesia	92,805	71.3	183,244	62.1	276,049	65.0
Bangladesh	26,484	20.4	62,627	21.2	89,111	21.0
Philippines	1,160	0.9	28,968	9.8	30,128	7.1
Thailand	6,342	4.9	16,474	5.6	22,816	5.4
Pakistan	1,121	0.9	927	0.3	2,048	0.5
Others ^a	2,218	1.7	2,644	0.9	6,910	1.6
Total	130,130	100	294,884	100	425,014	100

Source: A. Kassim (1996). "An overview of migrant workers in Malaysia". Paper presented at the One-Day Workshop on Foreign Labour in Malaysia, University of Malaya and the Institute for Policy Research, Kuala Lumpur, 23 October, with adaptation from the Malaysia Immigration Department.

^a There are no restrictions for expatriates as far as country of origin is concerned, unlike the restrictions that exist for manual workers.

**Table 3. Flow of international migrants,
by country of destination, 1990-1996**

Year	Total	Saudi Arabia ^a	Malaysia
1990	103,784	47,228	7,067
1991	169,972	75,915	1,628
1992	188,124	93,132	10,537
1993	244,508	106,387	67,938
1994	186,326	91,885	47,826
1995	187,543	84,009	35,174
1996	211,714	70,734	66,631

Source: International Labour Organization, International Labour Migration Database.

^a Saudi Arabia, the most important destination country, is included for the sake of comparison.

Bangladesh-to-Malaysia labour flow

Even before the country's independence in 1971, people from what was then East Pakistan (now Bangladesh) were already migrating to other countries in search of jobs (Osmani, 1986). Large-scale migration began in 1976, when the cash-rich Middle Eastern countries undertook massive development projects following the oil price hike in 1973. The crisis in the Persian Gulf during the period 1990-1991 prompted a shift in focus to South-East and East Asia (Ahmed, 1998). Fortuitously at that time, Malaysia was already suffering from acute labour voids – more so than other countries in the region (ILO, 1998). Consequently, in 1992, Malaysia entered into an agreement with Bangladesh for the systematic transfer of labour on a large scale. Hence, the Bangladesh-to-Malaysia labour movement was augmented from that year onwards (see [table 3](#)). The importation in 1986 of 500 Bangladeshis to service the plantation sector on a trial basis was a precursor to the mass labour movement. In 1994, Malaysia entered into another agreement with Bangladesh for the annual importation of 50,000 workers, mostly for the construction industry (Ahmed, 1998), although the aftershock of the Asian Financial Crisis damaged the programme.

Almost all early migrants traveled abroad on their private initiative (Osmani, 1986). In the mid-1970s, the Government of Bangladesh set up an institutional framework, the Bureau of Manpower, Employment and Training (BMET) under the Ministry of Labour, to regularize the procedures for labour export. From that time onwards, all foreign employment was required to be cleared by BMET while private recruitment

agents were required to have a licence to avoid fraudulent deals. Likewise in the beginning, labour movement to Malaysia was left entirely in the hands of the private sector. In 1995, following allegations of exorbitant fees and inefficiencies, a Government-to-Government procedure was introduced between the newly formed Malaysian Task Force and Bangladesh Overseas Employment Services Ltd.

There has also been a surreptitious inflow of job-seeking Bangladeshis through Malaysian entry points by persons masquerading as tourists and businessmen, or through porous land and sea borders guided by agents and middlemen. Contiguous labour surplus countries (including Bangladesh) and Malaysia have implemented various control measures (e.g. inspection at airports and border surveillance) to curb undocumented migration. However, these measures have proven to be not totally effective against tenacious traffickers and their human cargo. As an example, it should be mentioned that 6.4 per cent of the surveyed Bangladeshi site operatives admitted not having proper work and travel documents. The actual number must have been higher as it is the nature of people in such circumstances not to disclose their status for fear of punishment and deportation. In fact, to another survey question, 14.9 per cent admitted working previously in other economic sectors before entering construction. This in itself is telling as regularized workers are not permitted to change employers, let alone economic sectors. Almost all (91.4 per cent) of the sampled Bangladeshis had never undertaken international migration previously and therefore did not know what to expect. At the same time there was a very high degree of awareness (95.7 per cent) among the workers of the need to have valid work and travel documents before migrating to Malaysia. Both these figures point to a segment of surveyed Bangladeshi workers who were undocumented, either because they were undaunted in circumventing official control measures, or were alternatively duped by labour racketeers.

In Malaysia, a government stand vacillating between leniency and stringency on illegal workers emboldens employers to risk engaging them. Besides, up until the late 1980s, the authorities actually acquiesced to the inflow of unregulated foreign labour. The urgency with which labour is often required for construction projects, the encumbering legal restrictions and the amenability of clandestine workers to labour abuse ensures their demand (Salleh and Abdul-Aziz, 1997). Evasion of official scrutiny has been facilitated by the transient nature of construction projects, the innumerable and geographically dispersed sites, the casualization of labour and the division of labour that obfuscates the employer-worker link. Hence, legal and illegal workers co-exist, mingling at work and socially.

Table 4. Sources of funds to finance migration to Malaysia

Means	Percentage
Borrowed money	48.2
Used own savings	27.7
Sold land	22.0
Pawned jewellery	9.2
Sold livestock	8.5
Used parents' savings	7.1
Used siblings' savings	1.4

Source: Questionnaire survey.

The majority of the sampled Bangladeshi site operatives migrated to Malaysia by air (71.6 per cent), followed by land (14.9 per cent) and sea (13.5 per cent). The average costs of migration for the respective modes of travel were about M\$ 4,064, M\$ 1,981 and M\$ 1,726 (US\$ 1 = about M\$ 3.80). Even allowing for surreptitious entry by air, these responses serve to indicate that the vast proportion of the surveyed Bangladeshis entered Malaysia legitimately (regularized Bangladeshi workers are normally brought in by air), although they may have subsequently joined the ranks of illegal foreign workers by overstaying, or fleeing from their sponsoring employers. In theory, agents receive no payments from the migrant – they are paid a commission by employers for recruiting on their behalf (Osmani, 1986). But it is an open secret that prospective recruits must pay; otherwise they would be bypassed by those who are willing to do so. There have been allegations that migrants can seldom get away without paying a sum of money to BMET as well.

The surveyed Bangladeshis went to great lengths to finance their migration to Malaysia, the most common course of action being borrowing money (see [table 4](#)). Having invested so much material – not to mention emotional – resources, the desire to succeed overseas must have been intense, especially when there are dependencies to consider (the sample population had an average dependency of 4.9 people).

As for the reasons for migrating, the push factors include poor remuneration at home (49.6 per cent), slim employment opportunities at home (27.7 per cent), sheer boredom (7.1 per cent) and parental encouragement (7.1 per cent). The pull factors for Malaysia as a destination country were perceived abundant opportunities (83.7 per cent), high wage levels (10.6 per cent) and attractive job offers (9.9 per cent). Clearly, economic reasons were the main impetus for migration, although job opportunities rather than higher wages were the main stimulus. The

Table 5. Purpose of migrants' saving money

Purpose	Percentage
Future use	45.9
Business start-up	28.6
Land purchase	7.1
Marriage	4.1
House purchase	5.1
Family	5.1
Return fare	3.1
Settle debt	1.0

Source: Questionnaire survey.

surveyed Bangladeshis reported a more than threefold (3.4) improvement in economic welfare, from a monthly average salary equivalent to M\$ 267 previously at home to M\$ 905 in Malaysia. The sampled Bangladeshis spent on average 35.2 per cent of their earned income on personal expenditure, 38.5 per cent on family support and 26.3 per cent on savings. Another study found that the migrants' households in Bangladesh generally enjoyed economic and social uplift (Hadi, 1999). Having said that, 21.3 per cent of the surveyed Bangladeshis in this study experienced financial difficulties, which suggests that achieving migration goals was not a foregone conclusion for everyone.

When asked what they intended to do with their earned savings, the sample population indicated that the savings were for future use including business start-ups (table 5). Despite their entrepreneurial spirit, the migrants' business aspirations quickly evaporate when the reality sets in that often neither they nor their families have the necessary experience or education to succeed in business (Nair, 1986). A sense of pride and independence attributable to higher overseas income may be the underlying reason behind the popularity of such a response (Mahmood, 1995).

Employers' perception of Bangladeshi construction workers

Only 3.8 per cent of the sampled construction employers indicated Bangladeshis as the most preferred foreign nationality group — the lowest response for any foreign nationality group. Conversely, 52.1 per cent of the same sample population pointed to the Bangladeshis as the least favoured — the highest for any foreign nationality group. This is in contrast to the Indonesians who were the most appealing for employers to engage (73.6 per cent of the sampled construction employers said so); not even a single employer mentioned them as being the least desirable. It must be

emphasized, however, that the low popularity of Bangladeshi workers is not universal. In Malaysia's garment industry, employers have a higher regard for Bangladeshis than for any other foreign nationals – Indonesians included – because of their higher skill level (Rudnick, 19%). Would-be Malaysian employers have even gone to the extent of searching out recruits from factories in Bangladesh.

While cultural and language similarities favoured the Indonesians for construction work, other factors also conspired to render the Bangladeshis the least appealing foreign nationality group in the construction sector. For example, 58.3 per cent of the surveyed construction employers who least preferred Bangladeshis found them loath to do heavy outdoor manual work. Similarly, site observations found that, among the various nationality groups, they exhibited the greatest propensity to evade construction work when left unsupervised.

It has been generalized that migrant workers add to the productive potential of the host economy by virtue of their youth (Stalker, 1994). The study brought into focus the variability of productive potential between various nationality groups engaged in the same economic sector of a host country. The average age of the sampled Bangladeshis was 28.7 years, which was very close to the average age of the total surveyed foreign workers population, i.e. 28.2 years. Thus, age cannot be the factor accounting for variations in work attitude between the Bangladeshis and other foreign nationals. Having precluded age as the determining factor, it may be posited that the Bangladeshis migrated to Malaysia not expecting to work hard as manual labourers. After all, the data on pre-migration work experience reveal that they were less accustomed to such work compared with the Indonesians, who were praised by local construction employers for their hardiness in petty trading, factory operating and taxi driving as opposed to farming and fishing (see [table 6](#)). Furthermore, a smaller proportion of the Bangladeshis had worked in the construction sector prior to their arrival in Malaysia than the Indonesians.

Equally striking is the fact that, among the sampled foreign nationalities, the Bangladeshis recorded the highest proportion of individuals who surpassed formal schooling beyond the age of 15 (i.e. 31.2 per cent, with 8.5 per cent of them being university graduates). These people may have migrated to Malaysia in the hope of securing work commensurate with their education instead of being made to do the “3-D” (dirty, demanding and dangerous) jobs. In the early 1990s, there were anecdotal reports in the local newspapers of Bangladeshi construction engineers migrating to Malaysia in response to professional-level vacancies only to be consigned to manual construction work.

Table 6. Percentage of Bangladeshis and Indonesians working in different fields prior to migrating to Malaysia

Work	Bangladeshi	Indonesian
Farming	27.9	43.4
Petty trading	22.1	11.1
Operating a factory	13.6	4.1
Unemployed	11.4	12.8
Construction	7.9	12.2
Menial work	5.7	3.5
Taxi or lorry driving	4.3	1.8
Stevedoring	3.6	2.2
Fishing	1.4	6.6
Others	2.1	2.3

Source: Questionnaire survey.

All these factors beg the question of why the Bangladeshis entered the construction sector despite being seemingly averse to the nature of its work. Contacts, low entry requirement, abundant employment opportunities and willing employers were the frequent answers given to enquiries about why they were working in the construction sector (see table 7). Site operatives who relay information about job opportunities to fellow kinsmen are responsible for “occupational chaining” (Wickberg, 1994; King, 1996). On-site observations found work gangs often being composed of people from the same country, even the same locality or village. The cohesiveness of the work gangs serves to exclude others from different places of origin.

Not all were satisfied with the industry they entered: 13.5 per cent of the surveyed Bangladeshis were unhappy with their jobs, with 14.1 per cent expressing their desire to seek alternative work. When queried, the latter indicated the jobs to which they would like to switch: factory work (63.6 per

Table 7. Reasons why the sampled Bangladeshis chose the construction industry

Attraction of the construction industry	Percentage
Friends and relatives already in the industry	41.1
No skills required	40.4
Abundant work opportunities	34.0
Ease of finding employers willing to engage them	24.1

Source: Questionnaire survey.

Table 8. Percentage of workers attracted to alternative jobs

Attraction	Factory work	General work in other sectors	Self-employment
Not exhausting/not exposed to hot weather	71.4	—	—
Light work	28.6	100	100
High wages	57.1	—	—

Source: Questionnaire survey.

cent), general work in other sectors (27.3 per cent) and self-employment (9.1 per cent); the attractions are indicated in [table 8](#).

A relatively small number (12.5 per cent) of the construction employers who were least likely to engage Bangladeshis pointed to another of their perceived weaknesses, i.e. poor construction skills. Of the small number (7.9 per cent) of the surveyed Bangladeshis who had *pre-migration* construction work experience, i.e. an average of 2.3 years, the following were their trades: general labouring (33.3 per cent), cement masonry (33.3 per cent), bricklaying (11.1 per cent), plumbing (11.1 per cent) and welding (11.1 per cent). The responses from the surveyed site operatives themselves, when asked to classify their skill level, showed the Bangladeshis to be the most unskilled among the various foreign nationality groups working in construction (see [table 9](#)).

The lower skill level of the Bangladeshis may be attributed in part to the work attitude highlighted previously. It may also be due to their relatively shorter duration of stay in Malaysia, and hence shorter exposure to the various construction trades. Among the major nationality groups, the Bangladeshis were the most recent newcomers. They had the shortest average period of *post-migration* exposure to construction work in Malaysia, i.e. 2.5 years compared with 3.3 years for the entire sample of foreign

Table 9. Percentage of foreign workers by skill level

Country of origin	Unskilled	Semi-skilled	Skilled	Supervisor	Total
Philippines	8.3	41.7	41.7	8.3	100
Thailand	18.2	54.5	18.2	9.1	100
Myanmar	19.4	47.2	30.6	2.8	100
Indonesia	23.2	50.1	25.1	1.5	100
Bangladesh	33.6	47.4	17.5	1.5	100

Source: Questionnaire survey.

nationalities. Therefore, it is not surprising that skill deficiency was manifested in relatively more Bangladeshis (23.6 per cent) than any other nationality group being assigned to work as general labourers. Unskilled workers do not remain so indefinitely; site operatives can be expected eventually to master their respective trades in time, provided they have sufficient attachment to work and a desire for self-improvement. (That having been said, however, the rotation system, which truncates the stay of foreign workers at the end of the permitted period, conspires against the build-up of a pool of highly competent regularized foreign site operatives.) Indeed, the trait towards self-improvement was detected among a few of the surveyed Bangladeshis: 3.7 per cent of the sample population (25 per cent of them cement masons and 75 per cent general workers) aspired to change trades for reasons of higher pay (100 per cent) and lighter work (50 per cent).

The few employers in construction (only 3.8 per cent of the sample employer population) who identified Bangladeshis as their preferred nationality gave the following as their reasons: the abundance of Bangladeshis in the labour market (50 per cent) and ease in communicating (50 per cent). The large pool of Bangladeshi workers in the construction workforce helped to ease, to a large extent, the labour woes of their employers despite the workers' perceived shortcomings. While there were the odd few surveyed construction employers who indicated communication as a positive aspect of Bangladeshi site operatives, they were in the minority: 41.1 per cent of the construction employers who favoured Bangladeshis the least pointed to the communication gap, an attribute which incidentally was corroborated by 26.2 per cent of the surveyed Bangladeshis when asked about the problems they faced working in Malaysia. The construction process is communication-intensive as activities move from one stage to the next throughout the construction cycle. Indeed, effective communication is one of the factors that can determine whether a project succeeds or fails (Nicholas, 1990).

As a consequence of the different perception that employers had about the various foreign nationality groups, wage segmentation prevails in the Malaysian construction industry, with the Indonesians commanding the highest wage level and the Bangladeshis the lowest (see [table 10](#)). This phenomenon is so despite a policy introduced in 1991 by the Malaysian government to ensure equal wages and benefits for foreign labour (Md Zain, 1991). Interestingly, 79 per cent of the sampled Bangladeshi workers were not aware of the wage segmentation that prevailed, which can be

Table 10. Mean daily wages of foreign worker by nationality

Nationality	(in M\$)			
	Unskilled	Semi-skilled	Skilled	Supervisor
Indonesian	26.77	34.30	46.97	54.00
Bangladeshi	25.12	30.50	41.23	51.25

Source : Questionnaire survey.

accounted for by the prevalence of small- and medium-size construction outfits. Having said that, awareness of wage discrimination is likely to have contributed towards wage dissatisfaction among the surveyed Bangladeshis; wage dissatisfaction was more than twice as high as the level of the combined foreign worker survey population (see [table 11](#)). When probed further, 40 per cent of those who sensed that there was wage segmentation ascribed it to skill disparity while another 30 per cent ascribed it to nationality. It is striking to note that the second response is in agreement with the observation of Dacanay (1982) that the phenomenon represents the different levels of incentives needed to attract a particular nationality group to work in a certain economic sector in the host country. In the same context, from her worldwide study of construction workers' migration, Wells (19%) concluded that the standard of living and wages in the home country exert an influence on wage setting. If indeed the suspicion of the few surveyed Bangladeshi workers supported by the scholar's observations is true, then it can be surmised that, no matter how much the perceived shortcomings of the Bangladeshis are surmounted, there will still be discrimination against them simply on the basis of their country of origin.

Workers' perception of working in Malaysia

Having described the perception of local construction employers with regard to Bangladeshi workers, this article also addresses the viewpoint of the workers themselves for the sake of balance. As indicated previously, the majority (i.e. 86.5 per cent) of the surveyed Bangladeshis were satisfied with their jobs. Nonetheless, the questionnaire did enquire about the particular work conditions with which they were dissatisfied and everyone responded to this question (see [table 11](#)).

Aspects about insurance, accident compensation and work safety are interconnected, and so are discussed together. The Workmen's Compensation Act of 1952 requires that major contractors insure every

Table 11. Percentage of surveyed foreign workers who expressed dissatisfaction with various employment-related aspects

Aspects	Bangladeshis	Foreign workers
Insurance	46.4	41.3
Site accommodation	30.3	20.5
Accident compensation	26.0	24.1
Health services	24.8	24.2
Wage levels	16.9	7.7
Work safety	13.4	10.7

Source: Questionnaire survey.

worker against work-related injuries upon the award of a construction project. This requirement for insurance coverage for site operatives is always specified as part of the contractor's obligation in the contract documents, as drawn up by the client's representatives (e.g. quantity surveyor, civil engineer and architect). Workmen's Compensation Insurance provides protection to local and foreign workers alike. Beginning in November 1996, a separate mandatory insurance scheme for foreign workers came into force. Many of the surveyed Bangladeshis may not have been aware of this legal provision, thus accounting for their high level of dissatisfaction. Their dissatisfaction with insurance arrangements may also be related to the low frequency of compensation claims made by the main contractors on behalf of injured workers, the reasons being the amount of paperwork and the protracted process it entails, and itinerant construction work which impedes the tracking down of subcontractors' workers. Site observations found that, even for serious accidents, the only course of action very often is limited to medical treatment either at general hospitals or private clinics (the former for serious cases such as broken limbs or head injuries and the latter for light injuries such as puncture wounds). Whatever monetary compensation the workers receive depends on the compassion of the employers or major contractors.

Construction sites in Malaysia are notorious for their poor safety record. Official statistics (see [table 12](#)) do not reveal the true situation as main contractors try to evade reporting owing to the existence of the much-dreaded "stop-work order" pending official investigation. During the construction boom that stretched from 1988 to 1997, newspapers were filled with articles on workers being injured or even killed in site accidents. The Union of Employees of the Construction Industry (UECI) has alleged that foreign workers were made to work in dangerous situations that locals

Table 12. Accidents reported to Social Security Organization, 1990-1998

Year	Construction		All sectors	
	Reported cases	Deaths	Reported cases	Deaths
1990	3,123	40	121,104	390
1991	3,377	35	124,898	363
1992	3,615	39	130,019	541
1993	4,207	51	133,293	653
1994	4,311	44	122,688	644
1995	4,406	60	114,134	952
1996	5,401	116	107,635	1,205
1997	3,510	81	86,289	1,307
1998	979	104	85,338	1,046

Source: Annual Report of Social Security Organization (SOCSCO), various years.

would avoid; the data from this study lent credence to that claim. Even though not solicited, 7.1 per cent of the sampled construction employers indicated the amenability of foreign workers to hazardous work situations as one of the advantages of engaging non-nationals. The survey data on site operatives found that foreign nationals (23 per cent of the entire foreign worker population) were more prone to injuries than locals (19.7 per cent). Furthermore, a smaller proportion of the former (i.e. 10.7 per cent) perceived unsafe working conditions as a drawback of the industry in contrast to the latter (i.e. 14.2 per cent), which may be interpreted as a higher level of acceptance of the situation, possibly as a result of economic pressure. Despite the Bangladeshis recording the highest level of dissatisfaction with work safety in contrast with other nationals, the responses from the surveyed foreign workers on whether they had been injured at work do not give a hint of discrimination against any particular nationality in terms of their being made to work under unsafe conditions. If anything, past newspaper reports convey the impression that Indonesian workers were the most vulnerable, which upon reflection may have been due to their preponderance in the foreign workforce.

It is not for lack of government effort that site operatives have had to endure unsafe working conditions. There is a variety of safety legislation to which contractors are supposed to adhere, the latest being the Occupational Safety and Health Act of 1994 modeled on similar British legislation. Interviews with the Department of Occupational Health and Safety indicate that stricter enforcement of the laws and numerous publicity campaigns have engendered greater safety awareness in the construction industry, although conformance is slow. Major contractors still attach a low priority to safety in the workplace in their haste to meet tight construction dead-

Table 13. Percentage of surveyed foreign workers who expressed difficulties in coping with selected day-to-day affairs in Malaysia

Issue	Bangladeshi	Foreign worker
Missing loved ones back home	61.0	56.7
Difficulty in interacting with local populace	29.1	29.1
Police harassment	26.2	32.6

Source : Questionnaire survey on foreign site operatives.

lines. Recently, the Malaysian Construction Industry Development Board, empowered to ensure that the construction industry develops in a more coherent and systematic manner, has instituted the so-called green card programme, which requires every site operative to undergo a one-day construction safety course as a precondition to working on site.

It is common practice for the main contractors to provide temporary accommodations for construction site operatives, often without charge for those whose homes are too distant for daily commuting. While some accommodations are decent, the majority are erected perfunctorily using the cheapest, even discarded, building materials. At worst, they are nothing more than dilapidated shacks. Conditions inside can be quite deplorable – crammed, dimly lit and poorly ventilated. Sanitation, surface water drainage and rubbish disposal are typically crude. The inhabitants of such accommodations tend to be dominated by foreign nationals. There is no legislative and regulatory provision that the authorities can invoke to require main contractors to provide decent accommodations for site operatives. This is so despite the public health menace that such places can pose not only for the foreign workers but also for the general population. Dengue fever outbreaks in 1996 and 1997, for example, were traced to waterlogged construction sites. The Bangladesh High Commission made known during an interview the complaints it has received from its citizens about improper accommodations. On this note, it can be seen from [table 11](#) that the dissatisfaction level of the surveyed Bangladeshis concerning site accommodations was actually higher than for the entire foreign worker population.

At this point, it would be worthwhile to digress in order to highlight the nature of construction sites which are not only the focus for work but also serve as a social setting by virtue of accommodations being located within their boundaries. Site observations found that foreign workers from the same country, locality or origin displayed a high degree of camaraderie which under normal circumstances might not have become manifest. Missing loved ones back home, difficulty in interacting with local people and harassment by the police (for genuine and bogus reasons) (see [table 13](#))

lead foreign workers to seek solace from one another on the basis of shared community origin. By contrast, people from different countries, even regions, share little except proximity and even hostility. Site observations revealed that construction site communities were divided along kinship lines.

Interacting with the local populace has not been easy. While Malaysians welcome the much-required labour provided by foreign workers, they have demonstrated that they are less receptive to the social ramifications associated with their presence. Public xenophobia, in particular what could be called a “Bangladeshi-bashing sentiment”, climaxed when a clash took place between a large group of Bangladeshi workers and local youths in the southern state of Johor. The clash, which was supposedly over women, subsequently elicited a strong reaction from the media and the police. However, as was later discovered, the true cause of the furore was not about the chivalry of local youths but rather their attempts to extort money from the Bangladeshis. In the wake of that incident, the Home Ministry advised the local press to be more responsible in their reporting. It noted that Malaysia had granted legal entry to foreign labour from a few selected countries on the basis of socio-cultural similarities in order to avert social discordance. In the case of Bangladesh, one important similarity is religion: 97.2 per cent of the surveyed Bangladeshi site operatives mentioned that they are Muslims. However, as it turned out, even such careful planning has failed to avert ugly incidents such as the one cited above.

Further, workplaces are often raided by the police to apprehend foreign workers who have entered the country illegally. Tempted by the opportunity to make quick money, some dishonest policemen have taken advantage of their position to extort money from these people in return for acquiescence; they often make their raids on payday. Bogus policemen have also been caught extorting money from workers: 30.5 per cent of the surveyed Bangladeshis indicated that they had been stopped by police an average of four times, mainly for inspection of their travel and work documents (81.8 per cent), otherwise for “coffee money” (15.9 per cent). In connection with these spotchecks, the Bangladesh High Commission has protested against the rampant practice of employers withholding the workers’ documents as a safeguard against their abscondment. This practice, which incidentally is a worldwide malaise (Stalker, 1994), prevents regularized workers from proving their legitimate status during raids. As a consequence, regularized workers are often taken off to detention camps, together with their clandestine counterparts, to await release by their employers. Such occurrences bring unnecessary inconvenience, not to mention humiliation, to workers who have been adhering to the law.

There is no proper medical coverage for site operatives in the event of their ill health. Very often they are expected to fend for themselves, either by visiting government or private medical centres or relying on their compatriots for traditional medication. Even if employers take the workers to the doctor, the workers are likely to end up paying for the consultation and medication themselves. Unhygienic on-site accommodations can exacerbate the health condition of the workers. The workers are daily-rated and as such are not paid for the days they are off either for leisure or ill-health. Under such a work regime, foreign site operatives intent on earning money, as much and as fast as possible, may be driven to work despite being unwell. What is interesting to note also is that 12.1 per cent of the surveyed Bangladeshis indicated that they were facing health problems, which implies a workforce that cannot possibly be fully productive.

The grievances of the Bangladeshis actually touch at the very heart of the manner in which site operatives are treated, Labour practices in the Malaysian construction industry have changed little since colonial times, when Chinese coolies were brought into the country (Jackson, 1961; Siew, 1961), although tremendous progress has been made in labour relations in other economic sectors. Local site operatives have long endured the archaic practices foreign workers have now begun to experience. As intimated above, site workers are deprived of many social protection provisions of the law (Lee and Sivananthiran, 1996). Employers do not normally provide written contracts and the work relationship is invariably ad hoc in nature (Devi, 1996). Basically, site operatives are engaged as if they were self-employed workers rather than employees (Ramachandran and Arjunan, 1994). To make up for the lack of social protection and remuneration stability, construction workers are generally paid a higher salary than comparable workers in other industries. This situation may explain why the UECI has not protested against the customary practice.

Concluding remarks

In a host country setting where immigrant labour is composed of various nationalities, labour hierarchy is bound to prevail. This study indicates that, in Malaysia's construction industry, Bangladeshis have been relegated to the lowest stratum. The situation that has arisen parallels the construction boom period of the early 1980s in the Middle East when workers from Bangladesh were treated similarly (Gunatilleke, 1986). Even today, labour market segmentation still remains intact in that part of the world (Wells, 1996). Despite the recent Asian Financial Crisis, which resulted in a precipitous drop in the construction workload, what work is being done in construction relies heavily on the foreign workforce. There-

fore, it can be expected that the incidence of workers migrating to Malaysia for jobs in the construction sector will persist in years to come, even though the volume may fluctuate with the economic cycle.

There are steps that the Government of Bangladesh could take to forge a change in preference by Malaysian construction employers for various nationality groups. For a start, it could ensure that only skilled workers are sent to work in Malaysia's construction industry. A skills training programme for prospective international migrant workers should be introduced or otherwise expanded. Would-be migrants must also be the sort who can withstand the rigours of manual work under Malaysia's punishingly hot climatic conditions.

To surmount the language barrier, which hinders work and social relations, prospective migrants to Malaysia should be encouraged to take a preliminary course in the national language (*Bahasa Malaysia*). English as the international *lingua franca* is often ineffectual in small- and medium-size outfits whose proprietors often lack proficiency in the language. The Bangladesh High Commission has indicated that, as part of the regularized migration process to Malaysia, every departing Bangladeshi is required to undertake an orientation course to highlight the social conduct acceptable to the local populace in their new home in order to preserve multiracial harmony. Further, the intending migrants should be forewarned of the possibility of being treated as a discordant element in the host community. Equally important is that they must be prepared mentally to face the work treatment meted out to manual workers in construction, which as indicated previously is antiquated in comparison with other economic sectors. Any attempt to overhaul labour practices in the construction industry is best left to the Malaysian side. Thus, workers should be cautioned against taking industrial action. The Malaysian Government has on several occasions expressed its disapproval of foreign migrant workers going on strike, even threatening to deport any recalcitrant individual regardless of who is the wrongdoer. There are labour offices located in every major town and city throughout the country to which aggrieved workers can make formal complaints. Lately, even the Ministry of Immigration has brought within its purview the maltreatment of foreign workers, a marked change from its previous position of leaving this function entirely to the Ministry of Labour. Also, soliciting the help of non-governmental organizations (NGOs) may not be in the best interest of the foreign nationals. The claims of abuse in detention centres made in the foreign press have landed people in court without bringing about any positive change in the plight of the victims.

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Women's Status, Household Structure and the Utilization of Maternal Health Services in Nepal

Even primary-level education can significantly increase the chances of a woman using maternal health care from a modern health facility

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It is well recognized that maternal health services have a critical role to play in the improvement of women's reproductive health in developing countries (Magadi and others, 2000; Bhatia and Cleland, 1995; Becker and

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others, 1993; WHO, 1989). It is also well known that the utilization of maternal health services is undoubtedly influenced by the characteristics of the health delivery system such as the availability, quality and cost of the services. However, this does not necessarily mean that where there is a good supply of services, demand is created in and of itself, which will then lead to increased utilization. Thus, there has been considerable debate in the literature recently as to whether the mere provision of health services will lead to increased utilization (Magadi and others, 2000; Obermeyer, 1993; Basu, 1990). It may be true that, even under the same condition of availability, some women are more likely to use maternal health services than others. If so, characteristics of the health delivery system may not be the only explanatory factors for the utilization of maternal health services. Other factors such as the social structure and characteristics of individuals should also be considered in promoting the utilization of maternal health services.

Studies on health-seeking behaviour have identified the importance of the characteristics of health services such as the availability and accessibility of services to the general population in determining increased utilization (Develay and others, 1996; Becker and others, 1993; Magadi and others, 2000). The focus of such studies is mainly on the supply side of services; increasing the availability and accessibility of the health services is sufficient to increase utilization (e.g. Rosenzweig and Shultz, 1982; Elo, 1992; Kumar and others, 1997). However, other studies argue that the mere existence of health services is not enough to lead to better utilization (e.g. Basu, 1990). Since health care is a consistent choice of individuals, the factors that change women's perception of the available alternatives and their motivation to seek care need to be understood properly. In the case of preventive health care such as maternal health services, women must realize the potential benefits of utilizing the services.

In this article, factors influencing the under-utilization of maternal health services among Nepalese women are investigated. Nepal has one of the highest maternal mortality rates in South Asia partly owing to the low utilization of maternal health services (UNICEF, 1996). Particular focus is given in the article to women's status and household structure, while controlling for the accessibility factor. It has been argued that changes in women's status have been the key to differentiate the behaviour of those seeking modern health care from those following traditional practices (Florez and Hogan, 1990). In general, women with low status are less likely to use modern facilities, whereas women with higher status take the initiative in seeking care for themselves and their children (Caldwell, 1996). It has also been pointed out that differences in household characteristics influence the utilization of maternal health services (Wickrama and Keith,

1990). This is partly because, in developing countries, the decision to use any kind of health care for women is made at the household level. These two aspects of potential users of services are integrated into a single study and the effects examined of women's status and household structure on the utilization of maternal health services in Nepal.

Women's status is measured using three indicators derived from a large sample of Nepalese women. Measures include education, employment status and intra-household decision-making power. Education of women is an important status indicator. In general, women with higher education tend to have a better position in society (WHO, 1989). In some cases, however, education alone may not be sufficient to increase women's empowerment. Women's employment is also considered an important factor in enhancing the status of women (Hogan and others, 1999). Thus, we also include the employment status indicator to measure women's status. In addition, women's involvement in intra-household decision making is used as another indicator of women's status. Their ability to communicate with their spouses or other members of the family indicates their decision-making autonomy. Women with greater decision-making power are presumed to have greater autonomy and a high status in the household.

Also measured are household characteristics using four indicators derived from the same sample: nuclear or extended household, family size, male- or female-headed household and economic status. Although the decision to use health services is an individual choice and related to individual characteristics such as women's status, various household characteristics may also act as determining factors in influencing the individual decision. Particularly in the case of developing countries, the decision to use any kind of health services is often made at the household level. A woman cannot visit a clinic or hospital without the permission of her husband, mother-in-law or the head of the household (WHO, 1989). Thus, the effect of nuclear or extended type of households and household size is first examined. On the one hand, in a nuclear family unit, there is less pressure on the value of an obedient daughter-in-law than is often observed in most joint families. Since value is placed on the individual's own abilities and attributes, women in nuclear families may be more likely to take the initiative in seeking care for themselves (Caldwell, 1996). On the other hand, in nuclear households, women's freedom is limited since they have to take responsibility for the full burden of housework, while there is much more sharing of tasks between women in extended households, thereby enabling pregnant women to seek care outside the home (Momsen, 1991).

Similarly, the effect of the sex of the household head has been debated. On the one hand, female-headed households are more likely than male-headed households to have a positive influence on health-seeking behaviour owing to the greater autonomy and decision-making power of the female (Wickrama and Keith, 1990). As a result of their position, women who are household heads have more control over the household's resources, part of which could be devoted to seeking health services outside the home (Kishor and Neitzel, 1997; Momsen, 1991). However, female-headed households are often poorer than male-headed households. They are usually the sole providers for the household (Kishor and Neitzel, 1997). Thus, their lower economic status might pose a burden to female-headed households in terms of seeking health care services. Finally, we examine the economic status of the household as a determinant of use of health services, because several studies have shown the relationship between the use of modern health care and the financial stability of the household (Celik and Hotchkiss, 2000; Pebley and other, 1996).

In what follows, the relationships are examined between these indicators and women's utilization of maternal health services. The analysis is based on survey data for a large national sample of Nepalese women. First, it is hypothesized that the higher the women's status, the greater is the utilization of maternal health services. It is also hypothesized that women from a nuclear household structure have greater autonomy compared with women from the traditional extended/joint family structure and are therefore more likely to seek care. The hypotheses are tested while controlling for the availability of services. Before analysing the data, a brief review of the situation of maternal health services in Nepal is in order.

Maternal health services in Nepal

Nepal has one of the highest maternal mortality rates in South Asia. Of the estimated 927,000 pregnancies that take place in Nepal every year, 40 per cent of the pregnancies are considered to be highly risky for both the mother and the child (UNICEF, 1996). Frequent pregnancies and inadequate nourishment of women during pregnancy place women at high risk during delivery. Furthermore, the low availability and utilization of maternal health services during pregnancy increase the risks to expectant mothers. Thus, maternal health services, such as prenatal care, skilled assistance during delivery and post-natal care, along with adequately equipped health institutions, play a major role in the reduction of maternal mortality and morbidity.

In the past, traditional faith healers and traditional birth attendants provided health care in Nepal. It was during the end of the nineteenth century that the concept of modern medicine was introduced in Nepal. Starting from the mid-1950s, planned national-level efforts towards the development of modern health services were initiated. Since then, progress has been made in the development of modern health services, and in recent years modern health care has penetrated into various parts of Nepal. However, the services are still limited in number, especially in remote rural areas. At present, both modern and traditional forms of medicine co-exist simultaneously in the country (UNDP, 1998; Niraula, 1994; Gubhaju, 1986).

In Nepal, relatively few women use maternal health services during pregnancy. For example, according to the Nepal Family Health Survey (NFHS) of 1996 56 per cent of women did not receive any antenatal care during pregnancy. In addition, most children are delivered at home with the help of a trained traditional birth attendant or family members. Over 90 per cent of births in Nepal are delivered at home, while only 8 per cent are delivered at health facilities. The utilization of post-natal services is also very low. Only 12 per cent of women receive post-natal care from a health professional (UNICEF, 1996; DHS, 1996).

Some reasons for the low utilization of maternal health services are a result of the poor quality, unavailability and inaccessibility of services. While the low utilization of maternal health services in Nepal is partly due to the poor provision of services, the problem of non-use of health services is further exacerbated by various other social factors. One of the major contributing factors is the general lack of awareness among people of the availability and importance of maternal health care. In Nepal, the prevailing attitude towards pregnancy is that it is not considered a condition that requires special treatment. Therefore, antenatal care and medical care during childbirth are not considered essential components of pregnancy. In addition, for cultural reasons women are reluctant to seek antenatal care, especially from a male health worker. Consequently, in some cases, even when adequate services are available, women are reluctant to use them (UNICEF, 1996). In addition to the accessibility, cost and availability of the services, which are important factors in the low utilization of services, the prevailing attitudes among women towards such services should also be taken into consideration. The under-utilization of services indicates that, despite the existence of such services, people have neither the knowledge nor the incentive to use the services available.

Among districts, there is also a wide variation in the number of prenatal visits made by women. A study conducted by the Ministry of

Health (Department of Health Services, 1998) showed that the use of prenatal services was high (30 to 80 per cent) in 25 districts of Nepal and low (less than 10 per cent) in nine districts. Districts with low utilization are scattered throughout the country. Furthermore, the higher utilization of maternal health services was not confined to the regions where maternal health services are more accessible (Department of Health Services, 1996 1998).

This suggests that there are other reasons, apart from accessibility, that account for variations in the use of maternal health services between districts. Hence, the interventions to increase the utilization of maternal health services may require more than just making the services available. Social factors that influence an individual's demand for such care also need to be considered. If women in Nepal are to be encouraged to seek prenatal care, aside from improving the quality and accessibility of services, further efforts need to be made to change people's attitudes towards the importance of maternal health care. In order to persuade women to use maternal health care services, the benefits of using such services must be made known among the general population. At the same time, it is necessary to understand better the constraints making women reluctant to utilize maternal health services.

Data and operationalization of variables

The data for this study come from the 1996 NFHS, which is part of the worldwide Demographic and Health Surveys. The NFHS is a nationally representative survey of ever-married women 15 to 49 years of age. Data were collected from 8,429 ever-married women to provide detailed information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition. Two types of questionnaires were used in the NFHS: a household questionnaire and an individual questionnaire.

The sampling frame for the NFHS was the 1991 population census. Administratively, Nepal is divided into 75 districts; each district is subdivided into village development committees (VDCs) and each VDC into wards. The primary sampling unit was a ward or group of wards in rural areas and sub-wards in urban areas. The sample for the NFHS was a two-stage stratified sample consisting of 253 wards (or sub-wards).

The sample used for this study comprised those women who had at least one birth in the year prior to the survey. Hence, only service utilization behaviour associated with the most recent pregnancy was considered. The sample was selected based on the rationale that mothers

Table 1. Descriptive statistics of dependent variables, Nepal

Variable	Description		Total		Urban		Rural	
			N	%	N	%	N	%
Prenatal care	Used prenatal care from a modern source	Total	1,388	100	120	100	1,268	100
		Yes (1)	504	36	77	64	427	34
		No (0)	884	64	43	36	841	66
Place of delivery	Home vs. health facility	Total	1,388	100	120	100	1,268	100
		Health facility (1)	123	8.9	49	41	74	5.8
		Home (0)	1,265	91	71	59	1,194	94
Professional assistance	Received assistance from a modern source	Total	1,388	100	120	100	1,268	100
		Yes (1)	142	10	51	43	91	7.2
		No (0)	1,246	90	69	58	1,117	93

would most accurately be able to recall such utilization behaviour for a pregnancy that had occurred within the previous year. It was felt that utilization behaviour that had occurred prior to this interval might not have been accurately reported. Also, only the usual residents of the household were selected since corresponding information of the individual's household was essential to this study. After excluding cases with missing values, a total sample of 1,388 women has been included in this study.

This study analyses the utilization of three types of maternal health services: prenatal care, delivery at a modern health facility and professional assistance at delivery. They are all dichotomous variables indicating the use or non-use of these three maternal health services. Table 1 shows descriptive statistics for these variables. Separate statistics for urban and rural samples are shown. Prenatal care indicates whether the care was sought from a modern source (coded as 1); if care was sought from a traditional birth attendant or no prenatal care was sought, it was coded as 0. Of the total sample of women who gave birth in the year prior to the survey, 36 per cent received prenatal care from a modern source. Urban women were more likely to have received prenatal care from a modern source than rural women (64 and 34 per cent respectively).

Place of delivery indicates whether the place of delivery was at home (coded as 0) or a health facility (coded as 1). The category "health facility"

includes all types of institutional deliveries such as those at government hospitals, health centres, health posts, private hospitals, clinics and nursing homes. As table 1 shows, the majority of births in Nepal are delivered at home. Even in urban areas, about 60 per cent of the births are delivered at home.

Professional assistance at delivery indicates the type of assistance received during delivery. Assistance received from a medical doctor, nurse/midwife, maternal and child health worker, village health worker and other health professionals is considered modern professional assistance (coded as 1). Assistance received from a traditional birth attendant, or a relative/friend and no help are considered as no professional assistance (coded as 0).

Independent variables

Several proxy variables are used as measures of women's status and household structure. The *education* variable measures the level of education that a woman has completed. This variable is dichotomous and has been categorized as less than primary (coded as 0) and more than primary (coded as 1). The category "less than primary" includes women who have never attended school and those who have not completed primary-level education. The category "more than primary" includes all women who have completed at least the primary level of schooling. The rationale for this categorization is that the majority of women in Nepal have never attended school; therefore, completion of even a primary level of education would make a positive difference in their status. The number of women who have completed secondary and higher levels of education is too small to be treated under separate categories; therefore, such women are included in the "more than primary" category.

Work status of women indicates whether the woman is employed in any type of work aside from her own housework. The definition of employment used here is very broad as it includes all forms of women's labour force participation: formal and informal work, work inside and outside the home, and work for payment in cash, payment in kind or no earnings. This is a dichotomous variable: work (coded as 1) or do not work (coded as 0).

Job type further narrowly defines the employment of the woman. The informal type of work (coded as 0) with no cash earnings, such as agricultural and domestic work, is separated from modern-sector occupations (coded as 1), which enable women to earn cash. Modern-sector occupations are most likely to be associated with higher autonomy and

status compared with the informal type of work. This category includes women working as professionals and in managerial, technical and clerical positions or those doing manual work.

Cash income is the variable that indicates whether the woman is engaged in any income-generating activities. Women who are not working and those who are working but not earning any cash are placed in the no cash income category (coded as 0), whereas the women who are earning cash for their work are placed in the cash income category (coded as 1).

Decision-making by women is a composite score of four variables related to women's decision-making power in the household. Three of the variables are related to decision-making pertaining to family planning matters: discussion of family planning with husband, discussion of family planning with mother-in-law and ever-use of contraceptives. One additional variable, "usually listen to radio", is also included in the composite score. When the number of affirmative responses for the above variables is counted, the result can be represented on a scale from 0 through 4. A count of 0 is categorized as little decision-making power (coded as 1), a count of 1 or 2 is categorized as moderate decision-making power (coded as 2) and a count of 3 or 4 is categorized as strong decision-making power (coded as 3).

Several measures of household characteristics are also included in this study. The variable *family structure* is a proxy indicator for a nuclear and extended type of family structure. Households with three or more related adults are assumed to have an extended/joint family structure (coded as 0), while households with two related adults of opposite sex are assumed to have a nuclear family structure (coded as 1). Separately, the number of household members is used as an indicator of household size (household size). In addition, the sex of the household head is indicated by the *male/female-headed* variable (male-headed coded as 1, female-headed coded as 0).

Economic status of the household is measured by a composite score of several indicators of household possessions. The question was asked whether the household had such items and facilities as piped water, toilet, non-dirt floor, electricity, radio, television, telephone and bicycle. Affirmative responses to eight items are counted and a composite scale ranging from 0 through 8 is created. The higher the score, the higher is the economic status of the household. About 67.7 per cent of the households are below scale 2, while 28.2 per cent of the households range between 2 and 4, and 4.1 per cent of the households are above 4.

Control variables

Two additional variables are used to control for the accessibility and availability of maternal health services. The first is a dichotomous variable, *urban-rural*. Services are more accessible for women residing in households in urban areas compared with those in rural areas. Second, for the rural samples, the region of residence is used as the indicator for the availability of services. Nepal is divided into five development regions. Based on statistics provided by the Department of Health Services, the five regions are categorized into three groups: regions with scarce facilities (mid-western and far-western regions), those with moderate facilities (eastern and western regions) and the one with adequate facilities (central region).

Multivariate analyses of utilization of maternal health services

This section presents the results of the logistic regression analyses predicting the utilization of maternal health services using various independent variables related to the women's status and household structure. Three models using three dependent variables — prenatal care, place of delivery and professional assistance at delivery — were fitted for all women of the selected sample for both urban and rural areas. Additionally, since the majority of the population in Nepal live in rural areas (91 per cent), separate models were fitted for women only in the rural areas. For each model, regression coefficients and odds ratios are presented.

Use of prenatal care

The results of the prenatal care model are shown in [table 2](#). Of the individual-level characteristics related to women's status, the education level of the woman is the only variable that has a positive and statistically significant impact on the use of prenatal care. The results show that women with more than primary-level schooling were significantly more likely to use prenatal care from a modern source compared with women with less than primary-level schooling, after controlling for all other variables in the model. For a woman with more than primary education, the estimated odds of using prenatal care multiply by $\exp(\beta) = 2.50$ compared with a woman with less than primary education.

With respect to household-level characteristics, the economic status of the household has a positive and significant impact on the use of prenatal care. For every one unit increase in the economic status scale, the expected odds of a woman from that household using prenatal care multiply by 1.55; that is, there is a 55 per cent increase. Women from households with a

Table 2. Logistic regression results for use of prenatal care, Nepal

Variables	Total			Rural		
	Beta	Exp()	S.E	Beta	Exp()	S.E.
Education	0.92	2.50	(0.21) ^a	0.89	2.44	(0.23) ^a
Work status	0.01	1.01	(0.15)	0.09	1.09	(0.16)
Job type	0.3 1	1.36	(0.37)	0.23	1.26	(0.39)
Cash income	0.25	1.28	(0.32)	0.40	1.50	(0.33)
Decision-making						
Little decision-making (reference group)						
Moderate decision-making	0.16	1.17	(0.13)	0.13	1.14	(0.14)
Strong decision-making	0.50	1.65	(0.28)	0.36	1.44	(0.30)
Economic status scale	0.44	1.55	(0.06) ^a	0.47	1.60	(0.06) ^a
Family structure (Nuclear = 1)	-0.63	0.53	(0.15) ^a	-0.59	0.56	(0.16) ^a
Male/female-headed (Male = 1)	-0.79	0.45	(0.28) ^a	-0.70	0.50	(0.29) ^b
Household size	-0.07	0.94	(0.02) ^a	-0.06	0.94	(0.02) ^a
Urban-rural (urban= 1; rural = 0)	0.28	1.33	(0.25)			
Region (dummy)						
Scarce (= 3)	-0.38	0.68	(0.17) ^b			
Moderate (= 2)	-0.03	0.97	(0.16)			
Adequate (= 1)						
Intercept	0.08		(0.35)	0.02		(0.38)
N	1,388			1,268		

^a p < 0.01

^b p < 0.05

nuclear type family were substantially less likely to use prenatal care than women from households with an extended/joint type of structure. The expected odds of women from nuclear households using prenatal care decrease by 47 per cent compared with women from extended households. Women from male-headed households were also significantly less likely to use prenatal services. The expected odds decrease by 55 per cent. The results of the model derived from rural women are similar to the results derived from the total sample.

Place of delivery

Table 3 shows the results of the logistic regression model predicting *place of delivery*. Two of the women's status variables, education and occupation of women, have a positive and significant association with place of delivery. Women with more than primary schooling are 3.44 times more likely to have an institutional delivery. Additionally, the expected odds of giving birth at a health facility for women who work in modern-sector occupations are 4.17 times higher. Interestingly, the relationship between

Table 3. Logistic regression results for place of delivery, Nepal

Variable	Total			Rural		
	Beta	Exp()	S.E.	Beta	Exp()	S.E.
Education	1.24	3.44	(0.27) ^a	1.18	3.26	(0.32) ^a
Work status	-0.57	0.57	(0.25) ^b	-0.37	0.69	(0.29)
Job type	1.43	4.17	(0.62) ^b	0.79	2.20	(0.77)
Cash income	-0.87	0.42	(0.67)	-0.90	0.40	(0.84)
Decision-making						
Little decision-making (reference group)						
Moderate decision-making	0.01	0.99	(0.26)	0.02	1.02	(0.29)
Strong decision-making	0.81	2.24	(0.40) ^b	0.57	1.77	(0.46)
Economic status scale	0.34	1.40	(0.08) ^a	0.38	1.46	(0.10) ^a
Family structure (Nuclear = 1)	-0.20	0.82	(0.29)	-0.02	0.98	(0.33)
Male/female-headed (Male = 1)	-0.95	0.39	(0.41) ^b	-0.67	0.51	(0.49)
Household size	0.01	1.01	(0.03)	0.01	1.01	(0.04)
Urban-rural (urban = 1; rural = 0)	1.23	3.40	(0.32) ^a			
Region (dummy)						
Scarce (= 3)				-0.71	0.49	(0.34) ^b
Moderate (= 2)				-0.43	0.65	(0.31)
Adequate (= 1)						
Intercept	-2.32		(0.56) ^a	-2.39		(0.70) ^a
N	1,388			1,268		

^a p < 0.01

^b p < 0.05

women's work status and place of delivery has an inverse and significant association. Women who are currently working, aside from doing their own housework, are only 0.57 times as likely to give birth at a health institution. In other words, the expected odds decrease by 43 per cent. The majority of women in Nepal work in the agricultural sector. Therefore, this factor may negatively affect their status and lead to decreased utilization.

Although not statistically significant, it is surprising that women who earn money are less likely to deliver at a health facility. Women who work for money may be associated with households of low economic status, and for this reason, an inverse association may have been found. In terms of women's decision-making in the household, moderate decision-making in comparison to little decision-making does not significantly influence the place of delivery. However, strong decision-making has a significant impact. Women with strong decision-making power in the household are 2.24 times more likely to deliver at a health facility compared with women with little such power.

Table 4. Logistic regression results for professional assistance at delivery, Nepal

Variable	Total			Rural		
	Beta	Exp()	S.E.	Beta	Exp()	S.E.
Education	1.32	3.75	(0.26) ^a	1.13	3.10	(0.29) ^a
Work status	-0.96	0.38	(0.23) ^a	-0.94	0.39	(0.25) ^a
Job type	1.30	3.66	(0.56) ^b	0.88	2.42	(0.63)
Cash income	-0.31	0.74	(0.57)	-0.07	0.93	(0.61)
Decision-making						
Little decision-making (reference group)						
Moderate decision-making	0.09	1.09	(0.24)	0.15	1.16	(0.26)
Strong decision-making	0.42	1.52	(0.40)	0.14	1.15	(0.47)
Economic status scale	0.32	1.38	(0.08) ^a	0.32	1.38	(0.09) ^a
Family structure (Nuclear = 1)	-0.20	0.82	(0.27)	-0.07	0.93	(0.31)
Male/female-headed (Male = 1)	-0.90	0.41	(0.40) ^b	-0.60	0.55	(0.47)
Household size	0.03	1.03	(0.03)	0.05	1.05	(0.03)
Urban-rural (urban = 1; rural = 0)	0.94	2.56	(0.30) ^a			
Region (dummy)						
scarce (= 3)				-0.73	0.48	(0.34) ^b
Moderate (= 2)				0.14	1.15	(0.28)
Adequate (= 1)						
Intercept	-2.06		(0.53) ^a	-2.34		(0.64) ^a
N	1,388			1,268		

^a p < 0.01

^b p < 0.05

Two of the household variables, household economic status and male-headed households, have a significant association with place of delivery. When the household economic status scale increases by one unit, the expected odds of women of the household delivering at a health facility increase by 40 per cent. Also, women from male-headed households are 61 per cent less likely to give birth at a health facility. In the rural model, the education of women and household economic status were the only two variables that emerged as statistically significant.

Professional assistance at delivery

The results for *professional assistance* at delivery are presented in table 4. In this model, three individual-level variables significantly influence receiving modern assistance at delivery. The odds of women with more than primary education receiving assistance from a modern source during delivery are 3.75 times higher than for women with less than primary

education. Women who are currently working are 62 per cent less likely to receive assistance at delivery. However, if the woman is working in a modern-sector occupation, then the odds of receiving assistance are 3.66 times greater.

Predicted probabilities of receiving maternal health services

Influence of education on receiving prenatal care

The education level of the woman was chosen from the individual-level characteristics since it was shown to have the strongest significant effect in the model. Urban-rural place of residence was included in the prediction in order to control for the effects of the accessibility of the health services. A separate logistic regression analysis was run with only the two independent variables mentioned above. The predicted probabilities were thus calculated as follows:

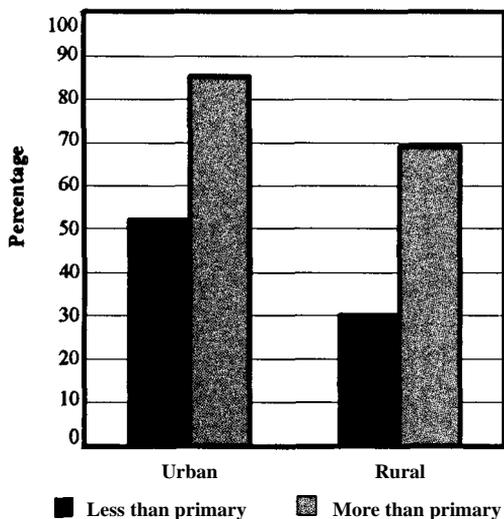
$$\text{logit (probability of using prenatal care)} = -0.8483 + 1.6494 (X_1) + 0.9193 (X_2)$$

where X_1 is the level of education and X_2 is urban-rural status. As seen in [figure 1](#), the probability of using prenatal care by a rural woman with less than primary schooling is only 30 per cent [$1 / 1 + e^{-[-0.8483 + 1.6494(0) + 0.9193(0)]} = 0.2998$]. However, if she has more than primary-level schooling, her probability increases to nearly 70 per cent [$1 / 1 + e^{-[-0.8483 + 1.6494(1) + 0.9193(0)]} = 0.6903$]. The predicted probability of educated women using prenatal care is higher for both urban and rural areas. This shows that education has a significant influence on utilization behaviour, regardless of the residential difference. However, the probability of a woman living in an urban area with less than primary schooling using prenatal care is 52 per cent [$1 / 1 + e^{-[-0.8483 + 1.6494(0) + 0.9193(1)]} = 0.5177$], which is higher than for women living in rural areas with less than primary schooling. This is also an indication that the availability and accessibility of health services is important in determining their utilization. However, a woman living in an urban area, who has more than primary schooling, has a predicted probability of 85 per cent [$1 / 1 + e^{-[-0.8483 + 1.6494(1) + 0.9193(1)]} = 0.84821$]. Hence, where health services are available, education increases the chances of women using maternal health care.

Influence of household structure on place of delivery

The predicted probabilities for place of delivery are calculated by three independent variables: education, male/female-headed households

Figure 1. Predicted probabilities of using prenatal care by education and urban-rural status, Nepal



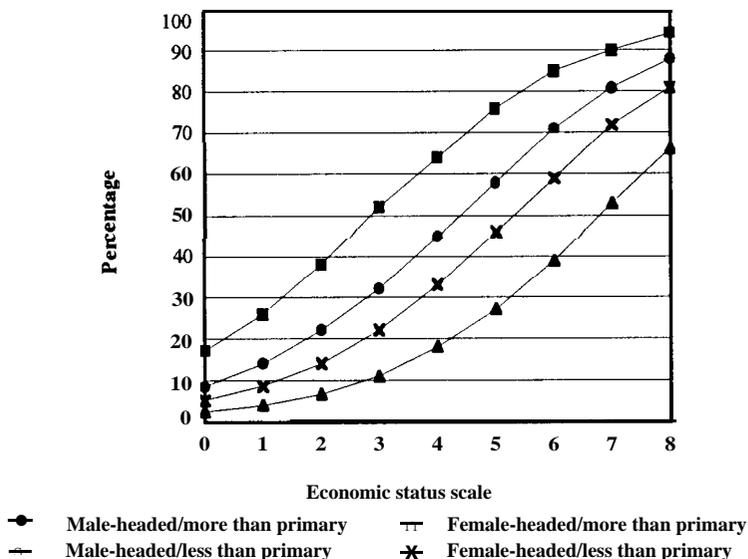
and household economic status. These three variables are put in a separate logistic regression analysis in order to examine their effects on the dependent variable:

$$\text{logit}(\text{probability of delivery at a modern health facility}) = -2.8931 + 1.3170(X_1) - 0.8105(X_2) + 0.5459(X_3)$$

where X_1 is the level of education, X_2 is the household head and X_3 is the economic status scale (discrete variable ranging from 0 to 8).

As shown in figure 2, the probability of delivering at a health facility increases as the economic status of the household increases. However, there are differences in the predicted probabilities depending on the sex of the household head and the educational level of women. The predicted probabilities are clustered together towards the lower end of the economic scale. When the economic status of the household is low, differences in educational levels and the sex of the household head do not seem to affect substantially the place of delivery. Inability to pay for the costs of an institutional delivery seems to be the major factor in determining place of

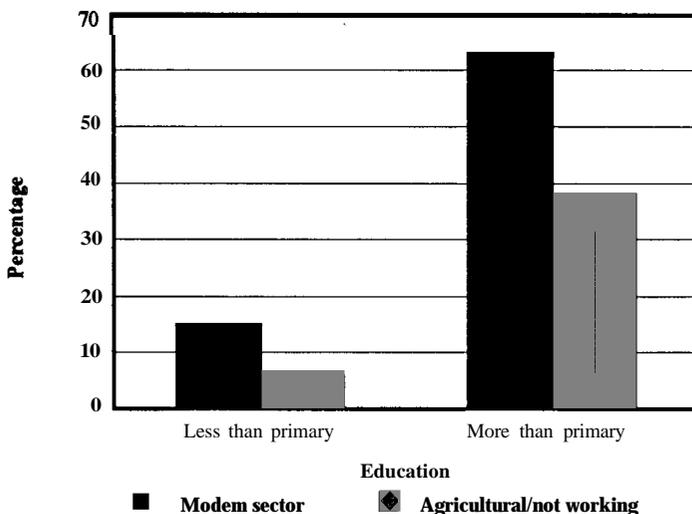
Figure 2. Predicted probabilities for place of delivery by economic status, education and household head, Nepal



delivery. Nonetheless, there are slight differences in the probabilities where a woman with less than primary education living in a male-headed household has the lowest probability of seeking care, i.e. 2.4 per cent $[1 / 1 + e^{-[-2.8931 + 1.3170 (0) - 0.8105 (1) + 0.5459 (0)] - 0.0240}]$,

As economic status increases, the gap between the different groups widens. This indicates that when the resources are available, individual and household characteristics determine how the resources will be used. Education obviously has an impact as women with more than primary education from both male- and female-headed households have higher probabilities than women with less than primary education. Women from female-headed households are also substantially more likely to deliver at a health facility. It may be the case that when resources are available, female heads of household are more likely to allocate resources to the health care of women. Hence, women with more than primary education from female-headed households have the highest probability of delivering at a health facility. At the highest economic scale, these women have a 94 per cent $[1 / 1 + e^{-[-2.8931 + 1.3170 (1) - 0.8105 (0) + 0.5459 (8)]} = 0.9422]$ probability of having an institutional delivery.

Figure 3. Predicted probability of receiving professional assistance at delivery by education and occupation, Nepal



Influence of education on professional assistance at delivery

Predicted probabilities for using *professional assistance* at delivery are calculated by selected independent variables that were statistically significant in the logistic regression model. Both education and occupation of women were shown to have the strongest significant correlation in the model. Therefore, a logistic regression analysis was run with these independent variables to predict probabilities of receiving professional assistance from a modern source during delivery:

$$\text{logit (probability of receiving assistance)} = - 2.7943 + 2.2858 (X_1) + 1.0292 (X_2)$$

where X_1 is the level of education and X_2 is the occupation.

The predicted probabilities show the dramatic impact of education on receiving assistance from a modern source at delivery (figure 3). Women with more than a primary level of education have substantially higher probabilities compared with women with less than primary education. Additionally, among women who have more than primary education, working in the modern sector increases their chances of seeking modern

assistance. The predicted probability for women in modern-sector occupations is 63 per cent $[1 / 1 + e^{-[-2.79431 + 2.2858(1) + 1.0292(1)]} = 0.62731$, compared with 38 per cent $[1 / 1 + e^{-[-2.79431 + 2.2858(1) + 1.0292(0)]} = 0.3755]$ for women who are not working or engaged primarily in agricultural work. Among women who had not finished primary school, 5 per cent of those who work in agriculture received professional assistance during their last delivery, while 15 per cent of those who work in the modern sector received such assistance (figure 3). Thus, working in the modern sector has a significant impact on receiving professional assistance during delivery even when controlling for education.

Conclusions and discussion

In this article, an attempt has been made to examine the effects of women's status and household-level characteristics on women's maternal health care utilization behaviour. The results of our analysis reveal that education of women is the most important factor in determining increased utilization of maternal health services, even after controlling for the availability factor. This finding is consistent with that of many previous studies which showed education of women to be the most significant predictor of increased utilization of health services (Bhatia and Cleland, 1995; Becker and other, 1993; Celik and Hotchkiss, 2000; Obermeyer, 1993).

There are a number of reasons why education of women has a significant positive relationship with maternal health care utilization. Educated women are more likely to realize the benefits of using maternal health services; therefore, they are more likely to use the services. In addition, education may enhance female autonomy, hence increasing women's ability to make decisions regarding their own health. Education also increases the knowledge of modern health care, thus increasing the demand for modern health services (Jejeebhoy, 1995; Celik and Hotchkiss, 2000).

Employment of women was negatively associated with the use of maternal health services. This may be due to the fact that most women in Nepal live in rural areas and work in the agricultural sector. The workload that is associated with agriculture in the rural areas most likely does not give women any time away from their work. Also, women who are employed are faced with a double burden of work both in their home and outside their home. Therefore, they would not have the time to seek care, which makes them less likely to use the services available. A few previous studies have shown that agricultural employment or employment in the informal sector

does not necessarily raise the status of women. In some instances, it may even be negatively associated with some aspects of women's autonomy (Riley, 1997; Momsen, 1991). This seems to be the case in the context of Nepal as there is a high concentration of women in low-status and low-paying jobs (Singh, 1987).

In terms of the household-level characteristics, household economic status was significant in predicting utilization behaviour. This shows that the relative cost associated with the use of health services has a significant impact on the decision to seek care. It reflects the household's willingness to pay the expenses that are related to health care use. The results of this study show that even among households of high economic status, differences in the structure of the household determine how the resources will be allocated.

Household structure was significantly related to the utilization of prenatal care. Contrary to our hypothesis, however, women from extended households are more likely to use maternal health care. There may be a number of reasons for this. Women from extended households receive family support that is not available in nuclear households. They have more contact with family members and receive encouragement to seek care (Conrad and others, 1998). Also, other women are present in extended households to share their household tasks. Especially in the case of prenatal and post-natal care, a woman has to take time out from performing her household chores in order to seek such services. Therefore, her willingness to seek care is dependent on the ability of other members within the household to take over her responsibilities. Another explanation, as shown by the literature, postulates that nuclear households are indeed relatively poorer than extended households. Extended family systems and large household sizes are associated with wealth and prestige (Gage and others, 1997).

In order to encourage women to make use of maternal health services, first and foremost the status of women in Nepal must be enhanced. The status of women in Nepal is very low and only 12 per cent of women have completed primary-level education. The results of this study have shown that even primary-level education can significantly increase the chances of a woman using maternal health care services from a modern health facility. Education has emerged as one of the most significant predictors of increased utilization, even after controlling for all other factors. Therefore, it can be concluded that education is the key to improving women's status. Hence, the importance of ensuring at least a primary level of education for all women must be emphasized.

Furthermore, Nepal is predominantly an agricultural society and most of the women who are employed are engaged primarily in agricultural work. In such a context, employment appears to perpetuate the low status of women. Most women are burdened with their household duties along with long hours of work outside the home. In rural areas of Nepal, pregnant women continue working until the time of birth and resume working very shortly after giving birth (WHO, 1989). The situation becomes worse when the women are from households with poor economic status and from nuclear-type households. Efforts to increase the utilization of health care should specifically target women of such types of household since they are the least likely to use the services available.

In conclusion, in addition to making basic health care accessible to all women in Nepal, providing women with education is imperative to promote increased use of maternal health care as well as to raise the status of women. However, bringing about changes in women's status will take several decades. Although every effort is required to bring about changes in this area, programmatic efforts should also target the most vulnerable groups and advocate the importance of using maternal health care, so as to increase people's awareness of the benefits of such services to women's health.

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Demographic Dynamics in the ESCAP Region: Implications for Sustainable Development and Poverty

*Population ageing, rapid urbanization and
international migration are issues challenging
several countries in the ESCAP region*

**By Bhakta Gubhaju, K.S. Seetharam
and Jerrold W. Hugué***

The ESCAP region has undergone a substantial change in the growth and structure of the population over the past several decades. Several countries and areas of the ESCAP region have completed the demographic transition, reducing fertility and mortality to low levels, while in many others both fertility and mortality rates remain high. Levels of urbanization and

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growth of the urban population also vary across the region. This article examines the size, growth and distribution of the population and provides an overview of the patterns of urbanization and urban growth in the ESCAP region. It discusses new and emerging issues of demographic dynamics in the region, in areas such as the economic and social impact of ageing and international migration. Finally, it highlights the implications of the process of urbanization for promoting gender equality and equity, for sustainable development and for reducing the incidence of poverty.

Population size and growth

In 2000, the population of the world reached 6.1 billion people; the population of the ESCAP region is 3.8 billion people, or 62 per cent of the global population (United Nations, 1999a). The ESCAP region has exhibited a substantial decline in the growth rate of population over the past several decades. The average annual population growth rate during the period 1990-2000 fell to 1.4 per cent. The growth rate is expected to decline further, i.e. to 1.1 and 0.9 per cent annually during the periods 2000-2010 and 2010-2020 respectively (table 1).

There are considerable differences in the growth rate by subregion and by country. During the period 1990-2000, North and Central Asia witnessed the lowest population growth rate of 0.2 per cent per year, while East and North-East Asia experienced a moderate growth rate of 1 per cent per year. South and South-West Asia exhibited the highest growth rate, i.e. 1.9 per cent per year, followed by South-East Asia with 1.6 per cent and the Pacific with 1.4 per cent.

It is noteworthy that the ESCAP region contains the two most populous countries in the world. In 2000, with a population of 1.3 billion, China was the country with the largest population in the world, followed by India, with 1 billion. The number of countries with 100 million inhabitants or more in the ESCAP region also increased from five in 1975 to seven in 2000. There will be a total of 18 countries in the world with 100 million inhabitants or more in 2050, of which 11 will be in the ESCAP region. By 2050, India is expected to be the country with the largest population in the world, 1.53 billion people, followed by China with 1.48 billion.

Components of population growth

Fertility

According to the *2001 ESCAP Population Data Sheet*, the total fertility rate is estimated to be 2.5 births per woman in the ESCAP region.

The total fertility rate varies considerably, from 1.5 and 1.6 births per woman respectively in North and Central Asia and East and North-East Asia to 3.4 births per woman in South and South-West Asia. South-East Asia and the Pacific have moderately high fertility, with total fertility rates of 2.6 and 2.3 births per woman respectively (United Nations, 2001).

Fertility has dropped to the below-replacement level (2.1 births per woman) in all the populations of East and North-East Asia with the exception of Mongolia, where the total fertility rate is 2.4 births per woman. Below-replacement fertility has been reached in Singapore and Thailand in South-East Asia, while Sri Lanka is the only country in South and South-West Asia exhibiting below-replacement fertility. Armenia, Azerbaijan, Georgia, Kazakhstan and the Russian Federation in North and Central Asia, and Australia and New Zealand in the Pacific have also experienced below-replacement fertility.

Table 2 shows the classification of countries and areas in the ESCAP region by total fertility rate in the periods 1970-1975 and 1995-2000. It is interesting to note that a large number of countries and areas experienced marked declines in fertility, from a very high level (5 or more children per woman) to a moderate level (2.11 to 3.49) during those years, whereas in countries such as Afghanistan, Bhutan, the Lao People's Democratic Republic, Maldives and Pakistan, fertility remained at a high level. However, a sustained decline in fertility was observed in countries where total fertility rates had been high or moderate in the period 1970-1975. Of particular importance are Azerbaijan, China, the Republic of Korea, Sri Lanka and Thailand, which exhibited remarkable declines in fertility, going from high to below-replacement levels.

Mortality

As with fertility, there is a substantial variation in mortality among subregions and countries and areas within the subregion. According to the *2001 ESCAP Population Data Sheet*, life expectancy at birth for males and females exceeds 60 years in all the subregions. Life expectancy at birth for females has reached 77 years in the Pacific (owing to high life expectancy in Australia and New Zealand), while it is 74 years in East and North-East Asia and 72 years in North and Central Asia.

Massive reductions in infant and under-five mortality rates have been attributed as key factors in the sharp rise in the expectation of life at birth in the ESCAP region (Leete and Alam, 1999). As shown in the *2001 ESCAP Population Data Sheet*, the infant mortality rate for the ESCAP region has

Table 1. Population size and growth rate of countries and areas in the ESCAP region, 1990-2020

	Population				Average annual rate of growth		
	1990	2000	2010	2020	1990-2000	2000-2010	2010-2020
ESCAP	3,276,462	3,753,774	4,176,146	4,551,179	1.4	1.1	0.9
East and North-East Asia	1,350,465	1,485,217	1,587,798	1,670,413	1.0	0.7	0.5
China	1,155,305	1,277,558	1,372,920	1,454,462	1.0	0.7	0.6
Democratic People's Republic of Korea	20,461	24,039	26,451	28,372	1.6	1.0	0.7
Hong Kong, China	5,705	6,927	7,552	7,751	1.9	0.9	0.3
Japan	123,537	126,714	127,315	123,893	0.3	0.0	-0.3
Macao, China	372	473	500	522	2.4	0.5	0.4
Mongolia	2,216	2,662	3,083	3,518	1.8	1.5	1.3
Republic of Korea	42,869	46,844	49,976	51,893	0.9	0.6	0.4
South-East Asia	440,225	517,655	587,138	652,244	1.6	1.3	1.1
Brunei Darussalam	257	328	384	436	2.4	1.6	1.2
Cambodia	8,652	11,168	13,250	15,545	2.6	1.7	1.6
Indonesia	182,812	212,107	238,012	262,291	1.5	1.2	1.0
Lao People's Democratic Republic	4,152	5,433	6,965	8,757	2.7	2.5	2.3
Malaysia	17,845	22,244	25,919	29,254	2.2	1.5	1.2
Myanmar	40,520	45,611	50,903	55,960	1.2	1.1	0.9
Philippines	60,687	75,967	90,544	102,404	2.2	1.8	1.2
Singapore	3,016	3,567	3,885	4,091	1.7	0.9	0.5
Thailand	55,595	61,399	66,511	70,975	1.0	0.8	0.6
Viet Nam	66,689	79,832	90,764	102,532	1.8	1.3	1.2
South and South-West Asia	1,244,297	1,501,481	1,743,308	1,962,908	1.9	1.5	1.2
Afghanistan	14,755	22,720	32,902	40,791	4.3	3.7	2.1
Bangladesh	109,465	129,155	151,799	170,194	1.7	1.6	1.1
Bhutan	1,696	2,124	2,754	3,500	2.2	2.6	2.4
India	850,785	1,013,662	1,152,164	1,272,166	1.8	1.3	1.0
Iran (Islamic Republic of)	56,309	67,702	76,932	89,105	1.8	1.3	1.5
Maldives	216	286	373	464	2.8	2.7	2.2
Nepal	18,772	23,930	29,715	35,517	2.4	2.2	1.8
Pakistan	119,155	156,483	199,745	244,211	2.7	2.4	2.0
Sri Lanka	17,045	18,827	20,870	22,772	1.0	1.0	0.9
Turkey	56,098	66,591	76,054	84,187	1.7	1.3	1.0

Table 1. (continued)

	Population				Average annual rate of growth		
	1990	2000	2010	2020	1990-2000	2000-2010	2010-2020
North and Central Asia	215,078	219,042	223,741	227,689	0.2	0.2	0.2
Armenia	3,545	3,520	3,697	3,893	-0.1	0.5	0.5
Azerbaijan	7,159	7,734	8,411	9,139	0.8	0.8	0.8
Georgia	5,460	4,968	5,011	5,141	-0.9	0.1	0.3
Kazakhstan	16,742	16,223	16,492	17,352	-0.3	0.2	0.5
Kyrgyzstan	4,395	4,699	5,188	5,769	0.7	1.0	1.1
Russian Federation	148,292	146,934	144,418	140,639	-0.1	-0.2	-0.3
Tajikistan	5,303	6,188	7,134	8,317	1.5	1.4	1.5
Turkmenistan	3,668	4,459	5,219	5,922	2.0	1.6	1.3
Uzbekistan	20,515	24,318	28,170	31,518	1.7	1.5	1.1
Pacific	26,397	30,377	34,162	37,924	1.4	1.2	1.0
American Samoa	47	68	95	126	3.8	3.3	2.8
Australia	16,888	18,886	20,615	22,321	1.1	0.9	0.8
Cook Islands	18	20	21	23	0.6	0.7	0.8
Fiji	726	817	936	1,050	1.2	1.4	1.1
French Polynesia	196	235	273	307	1.8	1.5	1.2
Guam	134	168	194	216	2.2	1.5	1.1
Kiribati	72	83	96	111	1.4	1.4	1.4
Marshall Islands	46	64	86	113	3.3	3.0	2.7
Micronesia (Federated States of)	971	191	441	74	2.1	2.0	1.8
Nauru	10	12	14	16	1.9	1.8	1.7
New Caledonia	168	214	246	272	2.5	1.4	1.0
New Zealand	3,360	3,862	4,207	4,540	1.4	0.9	0.8
Niue	2	2	2	1	-2.0	-1.5	-0.9
Northern Mariana Islands	43	78	131	203	5.9	5.1	4.4
Palau	15	19	24	30	2.4	2.3	2.1
Papua New Guinea	3,839	4,807	5,917	7,008	2.2	2.1	1.7
Samoa	160	180	217	254	1.2	1.9	1.6
Solomon Islands	321	444	588	742	3.2	2.8	2.3
Tonga	96	99	101	104	0.3	0.3	0.3
Tuvalu	9	12	15	19	2.8	2.5	2.2
Vanuatu	149	190	240	293	2.4	2.3	2.0

Source: United Nations (1999). *World Population Prospects: The 1998 Revision, Volume I: Comprehensive Tables* (New York, Department of Economic and Social Affairs)

Table 2. Classification of countries and areas in the ESCAP region by total fertility rate, 1970-1975 and 1995-2000

Total fertility rate in 1970-1975	Total fertility rate in 1995-2000			
	Very high (5.00 or higher)	High (3.50 to 4.99)	Moderate (2.11 to 3.49)	Low (2.10 or lower)
Very high 5.00 or higher	Afghanistan	Nepal	Democratic People's Republic of Korea	
	Bhutan	Tajikistan	Mongolia	
	Maldives	Turkmenistan	Bangladesh	
	Pakistan	Cambodia	India	
	Lao People's Democratic Republic	Philippines	Iran (Islamic Republic of)	
		Papua New Guinea	Uzbekistan	
		Samoa	Brunei Darussalam	
		Solomon Islands	French Polynesia	
		Vanuatu	Turkey	
			Indonesia	
			Malaysia	
			Myanmar	
			Viet Nam	
	High 3.50-4.99			Kyrgyzstan
			Fiji	Republic of Korea
			Guam	Thailand
			New Caledonia	Sri Lanka Azerbaijan
Moderate 2.11-3.49			Kazakhstan	Hong Kong, China Japan Macao, China Singapore Armenia Georgia Australia New Zealand
Low 2.10 or lower				Russian Federation

Source: United Nations (1999). *World Population Prospects: The 1998 Revision, Volume I: Comprehensive Tables* (New York, Department of Social and Economic Affairs).

dropped to 54 infant deaths per thousand live births and under-five mortality to 73 per thousand live births. However, these aggregate data conceal the wide disparity in the infant and under-five mortality rates prevailing in the subregions and countries within the subregions.

Table 3 presents a classification of countries and areas by infant mortality rate in the periods 1970-1975 and 1995-2000. It is apparent that many countries and areas in the ESCAP region have reduced their infant mortality level to below 25 per thousand. A rapid fall in infant mortality rates, from a very high level of 100 or more per thousand in the period 1970-1975 to a moderate level of 25 to 49 in the period 1995-2000, has occurred in Indonesia, the Islamic Republic of Iran, Turkey and Viet Nam. Similarly, countries and areas such as Brunei Darussalam, the Democratic People's Republic of Korea, French Polynesia, Samoa, Solomon Islands and Sri Lanka have demonstrated marked reductions in infant mortality, from a high level of 50 to 99 per thousand to a low level of below 25 during the past 25 years. Although a decline is under way, high levels of infant mortality (50 to 99 per thousand) in the period 1995-2000 are reported in several countries: Bangladesh, Bhutan, India, Maldives, Nepal and Pakistan in South and South-West Asia; the Lao People's Democratic Republic and Myanmar in South-East Asia; and Papua New Guinea in the Pacific.

Migration

Another emerging issue that is becoming more significant demographically is international migration. Both economic and demographic factors have stimulated such migration and currently many Asian countries either deploy or receive hundreds of thousands of international migrant workers per year.

According to United Nations estimates for the period 1995-2000, in the ESCAP region as a whole emigration has reduced population growth by about 2 per cent. However, in some countries such impacts are far greater. For example, emigration has a negative impact on the growth rates of population observed in the North and Central Asian countries, except the Russian Federation. In the Russian Federation, despite immigration, the population growth rate has become negative. In the Pacific, Australia has a net gain of population of 80,000 annually, contributing more than 40 per cent to the annual population growth rate. Countries such as Bangladesh, India and Pakistan in South and South-West Asia have experienced emigration of over 100,000 annually, thus reducing their population growth to some extent. Similarly, population growth has been negatively affected by emigration in China in East and North-East Asia, and Indonesia and the Philippines in South-East Asia (United Nations, 1997).

Table 3. Classification of countries and areas in the ESCAP region by infant mortality rate, 1970-1975 and 1995-2000

Infant mortality rate (per 1,000 births) in 1978-1975	Infant mortality rate (per 1,000 births) in 1995-2000				
	Very high (100 or more)	High (50 to 99)	Moderate (25 to 49)	Low (less than 25)	
Very high 100 or more	Afghanistan	Bangladesh	Indonesia		
	Cambodia	Bhutan	Viet Nam		
		India	Iran (Islamic Republic of)		
		Maldives	Turkey		
		Nepal			
		Pakistan			
		Lao People's Democratic Republic			
		Myanmar			
		Papua New Guinea			
	High 50 to 99		Mongolia	China	Democratic People's Republic of Korea
			Tajikistan	Philippines	Brunei Darussalam
		Turkmenistan	Thailand	Sri Lanka	
			Kazakhstan	French Polynesia	
			Kyrgyzstan	Samoa	
			Uzbekistan	Solomon Islands	
			Vanuatu		
Moderate 25 to 49			Azerbaijan	Macao, China	
				Republic of Korea	
				Malaysia	
				Georgia	
				Russian Federation	
				Fiji	
Low Less than 25				New Caledonia	
			Armenia	Hong Kong, China	
				Japan	
				Singapore	
				Australia	
			Guam		
			New Zealand		

Source: United Nations (1999). *World Population Prospects: The 1998 Revision, Volume I: Comprehensive Tables* (New York, Department of Economic and Social Affairs).

The ESCAP region has experienced the most varied and dynamic types of international migration flows. As a result, foreign workers now constitute a significant proportion of the labour force in many Asian countries and areas (*Migration News*, 2001). A United Nations study reveals that immigrants originating in Asia account for a major share of total immigration to Australia, Canada and the United States of America. In addition, the oil-producing countries of Western Asia have attracted migrant workers from Asian countries, and the rapidly growing economies of East and South-East Asia, together with Japan, have also become poles of attraction for labour migration. The study further indicated that in the past most migrants admitted by Gulf Cooperation Council members had been of Arab origin, but by the second half of the 1970s workers were recruited in Bangladesh, India, Indonesia, Pakistan, the Philippines, the Republic of Korea and Thailand. During the early 1990s, a majority of migrant workers in Western Asia were from Bangladesh, India, Pakistan, the Philippines and Sri Lanka (United Nations, 1997).

During the 1980s, the newly industrialized economies of East and North-East Asia and South-East Asia and Japan began to attract migrant workers from the less prosperous countries in the region. The sustained growth of the Japanese economy and that of the newly industrialized economies, Hong Kong, China; the Republic of Korea; and Singapore, has widened the income disparities among countries in the region and contributed to the generation of jobs that have been attracting migrant workers. As a consequence, migration flows from the labour-exporting countries in East and North-East Asia and South-East Asia have been redirected to Japan and the newly industrialized economies.

Changing age structure

The age structure of the population is largely the outcome of the regime of fertility and mortality that prevailed in the past. One of the implications of demographic transition (declining fertility and declining mortality) is population ageing. In developed countries, the proportion of the population in the older age groups is very high and increasing, while in the developing countries it is still low and increasing at a moderate pace. In the ESCAP region as a whole, the proportion of persons aged 60 years and older is expected to increase from 9 per cent in 2000 to 14 per cent in 2020 and 24 per cent in 2050. The proportion of older persons in the total population is likely to be much greater in East and North-East Asia and North and Central Asia than in other subregions.

For example, in Japan the proportion of persons aged 60 and older is expected to increase rapidly, reaching a high of 38 per cent in 2050. In other countries, such as the Republic of Korea, the Russian Federation, Singapore and Thailand, the population is ageing very fast, with 30 to 33 per cent of the population projected to consist of persons aged 60 and older in 2050.

The changes in the age structure of the population are more revealing in countries where declines in fertility and mortality occurred much earlier and at a faster rate. Japan has witnessed a considerable drop in the proportion of the population of working age; by 2050, less than half the population of Japan will be of working age. Other countries, such as the Republic of Korea, the Russian Federation, Singapore and Thailand, will also experience a decline in the working age population, reaching around 53-56 per cent in 2050 (United Nations, 1999a).

Urbanization

One of the salient features of demographic dynamics has been the increasing concentration of population in urban places, a process termed urbanization. This process involves the movement of people from rural-agricultural settings to urban-industrial, commercial and administrative centres in search of employment, education and a better standard of living.

The countries and territories of the ESCAP region had an estimated total population of 3.27 billion in 1990, which, by the turn of the century, had increased to 3.75 billion. This represents an increase of about 480 million people and a growth rate of 1.4 per cent per year. During the same period, the urban population of the region increased by 310 million, from 1.11 to 1.42 billion, with an average annual growth rate of 2.5 per cent and representing 64 per cent of total population growth (table 4). In short, urban areas absorbed nearly two thirds of the total population growth in the ESCAP region during the period 1990-2000.

As mentioned previously, during the next two decades, according to United Nations estimates, the total population of the ESCAP region will increase by 800 million, to 4.55 billion, and the urban population will increase by 760 million, to 2.18 billion. Thus, during the next two decades, nearly all of the population increase taking place in the ESCAP region (nearly 40 million per year on average) will be absorbed by urban areas, with the population in rural areas remaining about the size it is currently.

The ESCAP region as a whole is still predominantly agricultural and rural. The population living in urban areas comprised only about 37.7 per cent of the total population in 2000, up from 33.8 per cent in 1990. By 2020,

the proportion is expected to reach 48.0 per cent. The rate of growth of the urban population for the region as a whole will remain above 2 per cent a year, with a gradual decline from 2.5 per cent during the 1990s to 2.1 per cent during the period 2010-2020 (table 4).

Just as population growth varies across the region, so do levels of urbanization. In the Pacific, Australia and New Zealand are highly urbanized, with over 85 per cent of inhabitants living in urban areas, whereas in many island countries of the Pacific, less than half the population is urban. In North and Central Asia, which includes the Russian Federation and several newly independent countries of the former Union of Soviet Socialist Republics, two thirds (67.3 per cent) of the population of 219 million live in urban areas. In the other three subregions, the levels are below 40 per cent, with South and South-West Asia having only about a third of its population in urban areas. Table 4 also shows that, while only modest increases in the urban percentage are projected to take place in the Pacific subregion and in North and Central Asia, significant increases (more than 10 percentage points) are expected in all other regions. This broad geographical pattern, however, masks the significant differences with regard to urbanization, urban growth and their prospects for change that exist among the countries within each of the subregions.

An important dimension of urban demographic dynamics is the changing age structure. This is particularly important for most countries, with the exception of the developed countries and those in North and Central Asia. Rural-to-urban migration will swell the youth population of the cities or urban areas of those countries in the coming decades. Providing these young people with employment, health care, including reproductive health care, and other services will be a major challenge in the coming decades.

Of the adverse implications of urbanization, especially when it results in the growth of megacities, i.e. cities with over 10 million inhabitants (table 5), the most serious is its impact on the environment. The expansion of urban areas depletes productive agricultural land. Moreover, rising income levels result in increased consumption and utilization of resources and contribute to the deterioration of the environment. Water, which is becoming a scarce resource, is increasingly polluted with urban and industrial waste. These are matters of grave concern. These adverse impacts are aggravated by continued high rates of population growth in many countries of the ESCAP region.

Table 4. Selected indicators of urbanization and urban growth in the ESCAP region, 1990, 2000, 2010 and 2020

Major area, region and county	Urban population (thousands)				Percentage urban				Rate of growth		
	1990	2000	2010	2020	1990	2000	2010	2020	1990-2090	2000-2010	2010-2020
ESCAP region	1,107,106	1,415,337	1,774,666	2,183,493	33.8	37.7	42.5	48.0	2.5	2.3	2.1
East and North-East Asia	463,095	571,674	689,195	816,628	34.3	38.5	43.4	48.9	2.1	1.9	1.7
China	316,563	409,965	516,426	637,913	27.4	32.1	37.6	43.9	2.6	2.3	2.1
Democratic People's Republic of Korea	11,946	14,481	16,801	19,255	58.4	60.2	63.5	67.9	1.9	1.5	1.4
Hong Kong, China	5,701	6,927	7,552	7,751	99.9	100.0	100.0	100.0	1.9	0.9	0.3
Japan	95,575	99,788	102,483	102,333	77.4	78.8	80.5	82.6	0.4	0.3	0.0
Macao, China	367	468	495	518	98.7	98.8	99.0	99.1	2.4	0.6	0.5
Mongolia	1,285	1,691	2,108	2,548	58.0	63.5	68.4	72.4	2.7	2.2	1.9
Republic of Korea	31,658	38,354	43,330	46,310	73.8	81.9	86.7	89.2	1.9	1.2	0.7
South-East Asia	133,002	192,621	259,947	329,350	30.2	37.2	44.3	50.5	3.7	3.0	2.4
Brunei Darussalam	169	237	296	349	65.8	72.2	76.9	80.1	3.4	2.2	1.6
Cambodia	1,090	1,778	2,681	3,985	12.6	15.9	20.2	25.6	4.9	4.1	4.0
Indonesia	55,923	86,833	120,692	152,636	30.6	40.9	50.7	58.2	4.4	3.3	2.3
Lao People's Democratic Republic	750	1,275	2,055	3,152	18.1	23.5	29.5	36.0	5.3	4.8	4.3
Malaysia	8,891	12,772	16,536	20,082	49.8	57.4	63.8	68.6	3.6	2.6	1.9
Myanmar	9,984	12,628	17,014	22,402	24.6	27.7	33.4	40.0	2.3	3.0	2.8
Philippines	29,612	44,530	59,278	71,579	48.8	58.6	65.5	69.9	4.1	2.9	1.9
Singapore	3,016	3,567	3,885	4,091	100.0	100.0	100.0	100.0	1.7	0.9	0.5
Thailand	10,410	13,252	17,449	23,082	18.7	21.6	26.2	32.5	2.4	2.8	2.8
Viet Nam	13,157	15,749	20,061	27,992	19.7	19.7	22.1	27.3	1.8	2.4	3.3
South and South West	350,515	482,266	647,356	848,714	28.2	32.1	37.1	43.2	3.2	2.9	2.7
Afghanistan	2,692	4,971	8,873	13,587	18.2	21.9	27.0	33.3	6.1	5.8	4.3
Bangladesh	21,090	31,665	46,506	63,302	19.3	24.5	30.6	37.2	4.1	3.8	3.1
Bhutan	87	152	272	471	5.2	7.1	9.9	13.5	5.6	5.8	5.5
India	217,254	288,283	380,168	498,997	25.5	28.4	33.0	39.2	2.8	2.8	2.7
Iran (Islamic Republic of)	31,720	41,709	51,195	63,151	56.3	61.6	66.5	70.9	2.7	2.0	2.1
Maldives	56	75	108	161	25.9	26.1	29.0	34.7	2.9	3.6	4.0
Nepal	1,680	2,844	4,684	7,335	8.9	11.9	15.8	20.7	5.3	5.0	4.5
Pakistan	37,987	57,968	86,685	121,699	31.9	37.0	43.4	49.8	4.2	4.0	3.4

Sri Lanka	3,625	4,435	6,023	8,042	21.3	23.6	28.9	35.3	2.0	3.1	2.9
Turkey	34,324	50,164	62,842	71,969	61.2	75.3	82.6	85.5	3.8	2.3	1.4
North and Central Asia	141,833	147,436	154,060	161,418	65.9	67.3	68.9	70.9	0.4	0.4	0.5
Armenia	2,391	2,462	2,705	2,982	67.5	70.0	73.2	76.6	0.3	0.9	1.0
Azerbaijan	3,897	4,429	5,174	6,069	54.4	57.3	61.5	66.4	1.3	1.6	1.6
Georgia	3,060	3,015	3,278	3,592	56.0	60.7	65.4	69.9	-0.1	0.8	0.9
Kazakhstan	9,546	9,157	9,665	10,967	57.0	56.4	58.6	63.2	-0.4	0.5	1.3
Kyrgyzstan	1,645	1,563	1,747	2,154	37.4	33.3	33.7	37.3	-0.5	1.1	2.1
Russian Federation	109,733	114,141	116,541	116,913	74.0	77.7	80.7	83.1	0.4	0.2	0.0
Tajikistan	1,679	1,704	1,984	2,721	31.7	27.5	27.8	32.7	0.1	1.5	3.2
Turkmenistan	1,652	1,997	2,478	3,138	45.1	44.8	47.5	53.0	1.9	2.2	2.4
Uzbekistan	8,230	8,968	10,488	12,882	40.1	36.9	37.2	40.9	0.9	1.6	2.1
Pacific	18,661	21,340	24,108	27,383	70.7	70.3	70.6	72.2	1.3	1.2	1.3
American Samoa	22	36	55	80	48.1	52.7	57.9	63.2	4.9	4.2	3.7
Australia	14,369	15,994	17,581	19,388	85.1	84.7	85.3	86.9	1.1	0.9	1.0
Cook Islands	11	12	13	15	57.7	59.4	61.6	65.4	0.9	0.8	1.4
Fiji	302	404	531	659	41.6	49.4	56.7	62.8	2.9	2.7	2.2
French Polynesia	110	124	144	172	56.1	52.7	52.9	56.0	1.2	1.5	1.8
Guam	51	66	84	108	38.2	39.2	43.4	49.9	2.6	2.4	2.5
Kiribati	25	33	43	56	34.6	39.2	44.6	50.5	2.8	2.6	2.6
Marshall Islands	30	46	66	89	65.7	71.9	76.2	79.3	4.3	3.6	3.0
Micronesia (Federated States of)	26	34	47	67	26.4	28.3	32.3	38.3	2.7	3.2	3.5
Nauru	10	12	14	16	100.0	100.0	100.0	100.0	1.8	1.5	1.3
New Caledonia	103	165	210	242	61.6	76.9	85.4	89.0	4.7	2.4	1.4
New Zealand	2,848	3,314	3,660	4,013	84.7	85.8	87.0	88.4	1.5	1.0	0.9
Niue	1	1	1	1	30.8	31.7	36.6	42.1	0.0	0.0	0.0
Northern Mariana Islands	23	41	71	119	52.7	52.7	54.5	58.5	5.8	5.5	5.2
Palau	11	14	18	24	69.5	72.4	75.3	78.3	2.4	2.5	2.9
Papua New Guinea	576	837	1,255	1,870	15.0	17.4	21.2	26.7	3.7	4.1	4.0
Samoa	34	39	53	76	21.0	21.5	24.4	29.8	1.4	3.1	3.6
Solomon Islands	47	87	150	236	14.6	19.7	25.5	31.7	6.2	5.4	4.5
Tonga	31	37	45	52	32.6	38.0	44.0	50.3	1.8	2.0	1.4
Tuvalu	4	6	9	12	40.9	52.2	60.9	66.5	4.1	4.1	2.9
Vanuatu	27	38	58	88	18.2	20.0	24.0	30.1	3.4	4.2	4.2

Source: United Nations (2000). World Urbanization Prospects: The 1999 Revision (New York, Department of Economic and Social Affairs)

Table 5. Populations of megacities^a in the ESCAP region, 1975, 2000 and 2015

1975		2000		2015	
City	Population (millions)	City	Population (millions)	City	Population (millions)
Tokyo	19.8	Tokyo	26.4	Tokyo	26.4
Shanghai	11.4	Bombay(Mumbai)	18.1	Bombay (Mumbai)	26.1
		Calcutta	12.9	Dhaka	21.1
		Shanghai	12.9	Karachi	19.2
		Dhaka	12.3	Jakarta	17.3
		Karachi	11.8	Calcutta	17.3
		Delhi	11.7	Delhi	16.8
		Jakarta	11.0	Metro Manila	14.8
		Osaka	11.0	Shanghai	14.6
		Metro Manila	10.9	Istanbul	12.5
		Beijing	10.8	Beijing	12.3
				Osaka	11.0
				Tianjin	10.7
				Hyderabad	10.5
				Bangkok	10.1

Source: United Nations (2000). *World Urbanization Prospects: The 1999 Revision* (New York, Department of Economic and Social Affairs), table 5, p. 8.

^a Megacities = cities with over 10 million inhabitants.

Components of urban growth

Urban population growth and urbanization can be accounted for by natural increase, net migration, the reclassification of rural areas into urban areas and the extension of urban boundaries. A comprehensive and timely assessment of the relative contributions of these factors is hampered by a number of factors, including the paucity of relevant data. *A priori* one could assume that their relative contributions would change over time depending upon a number of factors, including the stages of demographic and urban transition and the pace and patterns of urban and spatial development and economic growth.

Estimates of the above components are derived from data provided in a recent publication (United Nations, 2000) on the assumption that natural increase is the same in both urban and rural areas and that migration between the broad subregions of ESCAP is of relatively minor importance. These estimates are provided in [table 6](#). The contributions made by reclassification and annexation have been included as part of migration and

Table 6. Contribution of net migration^a to urban growth in the ESCAP region, 1990-2020

Subregion	1990-2000		2000-2010		2010-2020	
	(thou- sands)	(percen- tage)	(thou- sands)	(percen- tage)	(thou- sands)	(percen- tage)
ESCAP	157,668	51	208,415	58	256,211	63
East and North-East Asia	64,534	59	79,340	68	92,475	73
South-East Asia	38,069	64	43,066	64	42,067	61
South and South-West Asia	65,896	50	93,073	56	124,553	62
North and Central Asia	3,013	54	3,495	53	4,663	63
Pacific	59	2	261	9	759	23

Source: Computed from data given in United Nations (2000). *World Urbanization Prospects: The 1999 Revision* (New York, Department of Economic and Social Affairs).

^a Net migration = including reclassification and annexation.

available evidence suggests that the relative contributions of reclassification and annexation, though generally small, could be significant during periods of rapid urbanization, as in South-East Asia (United Nations, forthcoming).

In short, for the ESCAP region as a whole, nearly 40 million people are added to the urban population each year, with about half, or about 20-25 million people, moving to urban centres in search of a better life. Nearly half of this urban migration is taking place in South and South-West Asia. The difference between East and North-East Asia (which includes China) and South and South-West Asia (which includes India) is striking. During the period 1990-2000, both regions had approximately the same number of net rural-to-urban migrants, but while in East and North-East Asia the number is expected to increase by 50 per cent, in South and South-West Asia it is expected to double by the period 2010-2020. The contribution of net migration to total growth, however, is higher in East and North-East Asia than in South and South-West Asia and will continue to be so. This situation clearly reflects the fact that a high rate of natural increase contributes significantly to urban growth also, through an increased volume of migration from rural to urban areas.

Rural-urban differentials

Studies have nevertheless indicated the general pattern of differences between urban and rural areas. For example, mortality during infancy and early childhood is considerably higher in rural than in urban areas, reflecting the generally poorer health services in rural areas.¹ Similarly,

rural areas exhibit higher levels of fertility (as measured by total fertility rate and crude birth rate) than urban areas and the differences are striking, on the order of 25-30 per cent in many countries.

How does urbanization, which involves significant rural-to-urban migration, affect gender equality and equity? The mechanisms that influence gender equality and equity are varied, but in general, migration and urbanization have favourable effects on gender equality and equity.

A new study indicates a gradual increase over time in the proportion of women among rural-to-urban migrants who move independently (United Nations, forthcoming). This increasing proportion of females among rural-to-urban migrants is likely to continue because of the opportunities for gainful employment in the formal and non-formal sectors in urban areas. The continuing pace of urban growth and urbanization, together with increasing female education in both rural and urban areas, can only add to this trend. Even women who are left behind by the migration of their spouses to cities may find that the separation helps to improve their status by enabling them to manage household resources and make independent decisions (Hadi, 1999).

These observations should not, however, diminish the importance of some of the adverse conditions such as trafficking, sexual abuse and harassment, and unequal treatment in the workplace that women continue to face in the cities, the incidence of which may well be on the rise.²

On balance, however, migration from rural to urban areas can provide women with opportunities for education and employment and reduce their dependence on men in making decisions (Skeldon, 1998). The increasing volume of female migration will be significant for the future status of women.

Urbanization and poverty

The question of how rural-to-urban migration, urbanization and poverty are linked has been the subject of policy debate for some time. It was noted previously that the ESCAP region is still predominantly rural. The majority of the world's poor, estimated at over one billion, live in the ESCAP region, and some of the extreme forms of poverty and deprivation are also to be found there. Moreover, a majority of the poor are to be found in rural areas. Yet poverty is also a major concern in urban areas, as can be seen from the squatter settlements of the region's metropolises and the poor living conditions of a significant part of the urban population.

It is often argued that increased rural-to-urban migration transfers rural unemployment, underemployment and poverty to urban areas. Evidence suggests that, though rural-to-urban migrants may be less well off than non-migrants in the receiving areas, their participation in the labour force is higher as they are absorbed into a variety of formal and informal sector occupations. Thus, it is indicated that “the majority of migrants to the cities of developing countries are generally absorbed into the social fabric of the cities; they are not necessarily thrust into poverty” (Skeldon, 1997:10).

Evidence also suggests that rural-to-urban migrants are generally better educated and better off than those who remain in the rural areas. Moreover, they are also generally motivated and entrepreneurial. With regard to its impact on rural poverty, it may seem that rural-to-urban migration can aggravate rural poverty by draining rural areas of their valuable human resources, but it should be noted that rural-to-urban migrants constitute a valuable network, which enables a flow of communication and a diffusion of ideas, including in matters related to fertility and family planning. They also contribute to the income of families and consequently to investment in rural areas, thus contributing to the mitigation of poverty there (Skeldon, 1997; Guest, 1998). Thus, although migration to urban centres can indeed have negative consequences for the sending communities, on balance the net impact on poverty appears to be positive.

It can therefore be concluded that rural-to-urban migration and urbanization per se would not contribute to an increase in poverty. On the contrary, they may actually be contributing to its mitigation in the rural areas and among rural-to-urban migrants. However, rural-to-urban migration and urbanization may lead to a situation where the number of urban poor may increase, even when the proportion of the poor in urban areas may be decreasing. A recent study conducted by ESCAP also indicates that, in recent decades, the level of poverty has declined in urban and rural areas, but the rate of decline in urban areas is either equal to or more than that of rural areas during a period of rapid urbanization. However, because of rapid urban population growth, in some countries the number of urban poor has increased during the same period (United Nations, 1999b).

Emerging issues and policy implications

This article has described the demographic dynamics of the ESCAP region. It has revealed that rapid population growth, resulting from high

fertility and declining mortality, was the major population concern in the ESCAP region during the latter half of the twentieth century. Recently, low fertility and mortality, resulting in lower population growth rates and in population ageing, have emerged as new issues challenging several countries in the ESCAP region.

As a consequence of low fertility and increased longevity, some countries will have smaller and older populations. Evidence from European countries shows that although fertility may rebound, it is highly unlikely that in most countries fertility will recover sufficiently to reach the replacement level in the foreseeable future. Mortality reduction will continue to be an overriding policy goal, which would further enhance the ageing process.

It is also noteworthy that, in spite of the decline in fertility to below the replacement level, several populations in the ESCAP region will continue to have positive growth owing to built-in population momentum. However, the decline in fertility and mortality will result in population ageing in many countries of the ESCAP region. It is projected that by 2050, between 30 and 33 per cent of the populations of countries such as the Republic of Korea, the Russian Federation, Singapore and Thailand will be aged 60 and older, while in Japan older persons will constitute about 38 per cent of the total population.

The implications of such population ageing and associated growth in the size of elderly populations are far-reaching and profound. They include serious burdens for economic and social support and health care systems. The rising number of elderly on the one hand and the declining number of younger people on the other will also mean that there will be a shortage of care-givers for the elderly population.

Because females generally live longer than males, there will be an excess of elderly women, which is typically viewed as problematic since it reflects high levels of widowhood. Elderly women, and especially those without spouses, suffer greater disadvantages than elderly men because they are less likely to have occupational skills, pensions or resident care-givers.

As several million Asians become international migrants each year and remit several billion US dollars to their families, international migration is clearly an important economic and social phenomenon, with political implications. Myriad policy issues concerning migration have arisen. A few of the issues surrounding protection of the migrants are noted.

When overseas labour migration occurs as planned by the migrant, it can bring career and financial benefits to the migrant and his or her family. The existence of thousands of recruitment agencies, however, means that

they are difficult to regulate and some of them defraud potential and actual migrants, sometimes by not delivering the services promised and sometimes by grossly overcharging for services. Migrants overseas are often very vulnerable to exploitation because they do not know the language or the laws of the host country or how to seek redress for grievances. Unauthorized migrants are especially vulnerable, as they fear that they would be expelled if they file any complaint with authorities (Abdul-Aziz 2001).

Female domestic workers and service workers may be the most vulnerable to exploitation and harassment because they usually work in family situations with few or no co-workers present. High proportions of male migrants work in construction or industry; thus, many are engaged in somewhat hazardous occupations yet often lack health insurance. An accident can leave the worker injured and in debt.

The demand for inexpensive labour and the poverty of large segments of the population in Asia have resulted in human trafficking on a large scale. Many of those trafficked are women and children, of whom it is estimated that a quarter million a year are trafficked in South-East Asia alone.

While Governments accept that a certain number of international labour migrants may be beneficial for the economy, they usually intend that such migrants should reside in the country only temporarily. Large flows of migration nearly always lead to some amount of long-term or permanent settlement, however, and few Governments have addressed the consequences of such settlement (see, for example, Komai, 2000).

Given the magnitude and economic importance of international migration flows within the region, it is perhaps surprising that Governments have been reluctant to deal with the issue in regional political or economic forums (Battistella and Asis, 1999). Some agreements have been formulated between two concerned Governments, but the main issues have not been put on the agenda of regional institutions. As the importance of international labour migration increases, however, it is likely to generate expanded intergovernmental discussion and planning, especially within subregional groupings.

In terms of implications for poverty, urbanization and rural-to-urban migration are likely to contribute to the alleviation of poverty in both rural and urban areas. Similarly, urbanization and rural-to-urban migration are likely to enhance women's status and promote gender equality and equity. Policies that restrict movement, therefore, are unlikely to be beneficial in

terms of poverty alleviation and gender equity. More efficient management of the inevitable process of urbanization and urban growth and the harnessing of the benefits of rural-to-urban migration should be given high priority. Of particular importance in this regard is improving the management of megacities.

Policies and programmes aimed at increasing employment in urban areas are of particular importance in alleviating poverty. As the youth population will continue to increase during the coming decades in many countries of the ESCAP region and young people will be disproportionately found in urban areas, employment generation in urban areas should be emphasized.

Urban policies and programmes, however, should not be promoted at the expense of rural areas, and rural development should receive added attention. Although they are likely to increase the pace of rural-to-urban migration, policies and programmes designed to reduce rural poverty and improve the standard of living of the rural population should be given high priority on the policy agenda. In addition to enhancing productivity and increasing employment in rural areas, they will contribute positively to urban development by improving the skills and qualifications of rural-to-urban migrants.

Policies and programmes aimed at reducing fertility and population growth are likely to have much greater impact on containing urban growth and on alleviating poverty than those designed specifically to stem the flow of rural-to-urban migration. This is true for countries, particularly those in South Asia, where fertility continues to be high. In this regard, it should be noted that improving access to health care, including reproductive health care, and promoting education and employment, particularly for women in both rural and urban areas, should be high on the policy agenda, as these actions would contribute to the reduction in fertility and population growth. As noted previously, bridging the rural-urban gap in education would contribute significantly to reducing the gender gap in education.

As further urbanization is inevitable, the future will be an urban one. Managing this process so as to contribute to the alleviation of poverty, to promote gender equality and to ensure sustainable development is the challenge that planners and policy makers will face in the coming decades. Globalization is likely to add to the pace of urbanization, but, as witnessed in recent years, fluctuations in the world economy, closely interconnected through emerging information technologies, will influence the process. Globalization will therefore need to be closely monitored through in-depth studies.

Endnotes

1. There is, however, increasing evidence indicating that infant and under-five mortality is higher in megacities because of the poorer living conditions of a significant part of the population in these cities (see, for example, Brockerhoff and Brennan, 1997).
2. The adverse consequences for females who move independently to cities are highlighted in the recent publication, *Migration, Urbanization and Development: New Directions and Issues*, Richard E. Bilborrow (ed.), 1998.

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Moving and Rootedness: the Paradox of the Brain Drain among Samoan Professionals

By Asenati Liki*

For almost half a century, conceptions of Pacific islander movement have been influenced by the perspective of national economic development – one to which many planners and policy makers subscribe. In this view, movement is assumed to be unidirectional, from the islands to the metropolitan Pacific. This assumption creates and enhances images such as “permanent migration”, “emigration”, “exodus” and “brain drain” which are fundamentally associated with the core-periphery and growth-centre constructs of the Western-derived model of dual economy (White and others, 1989). Not only do they seriously misrepresent locally rooted meanings of mobility among indigenous islanders, but also these images imply development uncertainties that will face island populations in the future.

The implications of these images for understanding the international mobility of Pacific islanders are explicit in the literature dealing with the movement of skilled workers (South Pacific Commission, 1982; Macpherson, 1983; Connell, 1987; World Bank, 1993). The brain drain, perceived as detrimental to development, has over the last three decades been an issue of concern among island Governments. However, the term is founded on the assumption that the movement of skilled people is strictly a one-way flow to

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the places of destination and thus portrays those who move as people detaching themselves physically and socially from the homeland and from cultural values. The brain drain concept freezes the many travels undertaken by members of this group as well as the associated flows of goods, money and ideas, many of which are not quantifiable and therefore fail to appear in migration and national income data.

Focusing on the movement of Samoan professionals, this paper first examines the debate that revolves around brain drain, and how this notion has been adopted over the last four decades to explain the international mobility of skilled persons in third world situations. Second, it argues that the mobility of Samoan professionals is part of the overall complex flow of Pacific peoples within and beyond the region. Based on a study conducted in 1993, which involved 109 Samoan professionals from Fiji, New Zealand and Samoa, the paper argues that the construct of brain drain does not accurately fit the diverse and flexible movement of these people, for it is a process that is strongly connected to cultural and kinship values. It concludes by affirming that the mobility experiences of Samoan professionals speak of travels that draw them closer to, rather than away from, home.

The brain drain: global perspectives

The term “brain drain” has been widely used by migration scholars to refer to the permanent exit of skilled and professional workers from one country to another. The term was coined in 1962 by the British Royal Society on Science and Technology to describe the substantial outflow of British engineers, scientists and technicians, especially to the United States of America (Committee on Manpower Resources for Science and Technology, 1967). Since then, it has been applied to the movement of highly qualified people and students from developing to developed countries (Appleyard, 1989). In 1972, at the third session of the United Nations Conference on Trade and Development, held at Santiago, a new phrase “the reverse transfer of technology” was added to the meaning of skilled migration. This phrase implies that it is not so much the loss of “brains” which is at stake, but rather that the skilled migrants “embody capital and knowledge, and constitute a transfer of resources and technology in the reverse direction” (d’Oliveira e Sousa, 1989:197). This reverse transfer maintains a balance of resource flows between the developing and developed worlds.

The brain drain debate is marked by two diametrically opposed perspectives, namely the nationalist and the internationalist. Based on

Marxist conflict analysis, in which labour migration is seen essentially as a manifestation of continuing dependency that increases underdevelopment in the third world and overdevelopment in the first world, the nationalist view condemns emigration as a problem for countries of origin. Some nationalists take a more extreme position, claiming brain drain to be the most severe form of exploitation of third world peoples. For example, Ward (1975:233) argues that brain drain is a manifestation of exploitation of developing countries by those with more developed, capitalist economies. Zahlan (1977) sees it as “an act of treason and theft”, because the movement is unidirectional and results in irreplaceable losses to the sending countries (Mundende, 1989:185). In the 1960s and 1970s, the effects of brain drain movement were considered particularly serious for newly independent countries. The flow of skilled people from the former colonies, primarily to once colonizing powers, was seen as a way of sustaining development in the latter, which already had achieved economic prosperity (Kannappan, 1968; Kidd, 1970).

The nationalist perspective also suggests ways in which brain drain could be lessened or stopped. Some emphasize the responsibility of the sending countries, saying that social, political and economic environments that enhance development should be created by their respective Governments, thereby discouraging skilled citizens from migrating (Patinkin, 1968). Others such as Grubel and Scott (1977:145) have recommended large-scale policies to narrow worldwide income differences and to make immigration more difficult through tight immigration policies in the receiving countries. However, these suggestions have encountered a number of difficulties. Nationalists acknowledge that a complex of factors characterize these movements of talented professionals and that no particular strategy can be effective enough to stop them (Long, 1989).

On the other hand, the internationalist or cosmopolitan liberal tradition views migration as an equilibrating response to spatial inequalities, as essentially voluntary in nature, as a rational attempt by migrants to maximize utility and as a vehicle for upward social mobility (Johnson, 1968; Salt, 1988; Ong and others, 1992). As one of its early proponents, Johnson (1968) argued that the international migration of highly skilled workers was a process beneficial to both the global community and individual migrants. For this process demonstrates the free distribution of human resources rather than exploitation and reflects the free choices of individuals who chose to migrate. Skilled migration between countries therefore indicates that “the market for the educated professional people, like the market for commodities, is becoming increasingly an international rather than a national market” (Johnson, 1968:90).

The international labour market to which Johnson referred three decades ago has now become more and more diversified and powerful as the globalization of production and services and the new international division of labour became increasingly inevitable. More recently, advocates of the internationalist school of thought have pointed out that skilled migration is simply about “brain exchanges” (Salt, 1983) or “skill exchanges” (Findlay, 1990). These “exchanges” occur as a response to the internationalization of economic activities, the changing structure of the global labour market, and the globalization of higher education.

The internationalist viewpoint is derived primarily from studies conducted in the countries of Western Europe as well as the United States of America. Salt (1992), Gould (1990) and Findlay (1990), for example, focus their work on the movement of professionals within Western Europe. Others such as Long (1989) Furuya (1992) and Sekiguchi (1992) concentrate on migration from Latin America and parts of Asia to Australia, Canada, the United Kingdom and the United States of America. The nationalist perspective, on the other hand, focuses basically on movement between countries categorized as third world and first world and has come to dominate analysis in the Pacific. While concerns about the loss of skilled workers had, since the 1970s, been acknowledged at the country level, it was not until 1982 at a migration conference jointly sponsored by the South Pacific Commission and the International Labour Organization, held at Noumea, New Caledonia, that brain drain was specifically addressed at the regional level. Since then, this notion has been echoed in various reports and development plans of many island Governments as a critical “development” problem.

The measure of the “brain drain problem” in the Pacific islands, as identified and discussed in both official reports and academic accounts, is the shortage of skilled and professional islanders, particularly in the public sector (Connell, 1987; Chetty and Prasad, 1993). In Samoa, for example, the government sector is reported to have experienced a shortage of highly qualified personnel during the last three decades. While skill shortages in the earlier years of independence, from 1962, were to be explained by the few Samoans trained in local and overseas tertiary institutions (Western Samoa Economic Development Board, 1966; Western Samoa Department of Economic Development, 1970) the situation today is attributed to the loss of qualified Samoans to the rim countries of Australia, New Zealand and the United States of America (Western Samoa Department of Economic Development, 1984; Western Samoa Department of Statistics, 1989; Petersen, 1993). This latter reason dominates current analysis on the labour market in the Pacific and is presented as a major impediment to efficient economic performance (World Bank, 1993).

Uprooting the “problem” of misrepresentation

There are critical assumptions embedded in the nationalist and internationalist perspectives which need to be addressed and seriously examined. First, despite their seemingly oppositional character, both traditions have one thing in common. Their frame of reference is economic development, which not only assumes universality and homogeneous economic behaviour of people but also operates on conceptions of a dual economy. Consisting of two parts, this dual economy assumes socio-cultural and political differences between Western countries and the third world. Western cultures are presented as highly organized in terms of material objectives and production, compared with the loosely organized and fatalistic cultures in the third world. The fundamental problem of “development” in this model is the emphasis on the imbalanced connection between these two sets of cultures. As Johnston and others (1994:141) observe:

Such emphasis upon development generates an economic and universal view of the world, and so legitimates dualist thinking by imposing a particular and singular Western view of the world on all ‘others’. It thereby encourages the simplistic division of the world in dualist terms.

Linked to this view is a second critical point: that both the nationalist and the internationalist traditions assume the permanency of population movement. The use of the term “brain drain” implies discrete differentials in mobility between sections of the dual economy. In these, movements from traditional to modern locales are motivated by wage and job opportunities between them. In general, explanations offered for population mobility among third world peoples have been attached to development analysis and assumptions that do not always portray the complex reality found in these situations. White and others (1989:277) have critically examined this relationship, arguing that “Development is an element of conventional migration models.... This is illustrated by the central role ascribed to market conditions, which vary from place to place in reflection of economic growth-and-decline experiences at the national, regional and local levels”.

The travels of Pacific islanders have been portrayed in such dualisms as “island/metropolitan” or “rural/urban” in which, as Chapman (1991:267) argues, people are “assumed to be moving inexorably in one direction and to be sliding down the slope of gravity from rural settlements into town...”. In addition, such constructs as “unskilled” and “skilled” migration strongly mirror the human resource perspective, one segment of which addresses the effects of migration on development (Gober-Meyers, 1978; Brown and Lawson, 1988). As White and others (1989:278) clearly point out, migration

from the human resource viewpoint is selective, so that “origin places are drained of quality human capital to the benefit of destinations, thus altering development prospects of each locale”. While such constructs conveniently serve the vested interest and economic purpose of development, they also impose the danger of narrowing a much wider and more complex frame of reality to which travelers relate and which they value much more deeply than is often assumed. This is particularly critical in the Pacific, where culturally-based meanings of family and community relations are strongly held and firmly rooted in the “lifeworlds” of peoples and the travels they make.

The brain drain idea is basically Eurocentric in origin and focus. The notion shares the same implied meaning underlying the concepts of “emigration” and “exodus” which are, to use Chapman’s phrase, “metaphors of misunderstanding”.

Their origin “lies not in the island Pacific but in the work that urban sociologists had undertaken concerning the American Midwest during the 1920s and 1930s. Reflecting the practice of the day, these observers considered each move made from one location to another as a discrete event or activity occurring at a particular moment in time” (Chapman, 1991:265).

The application of the brain drain notion to the situation of third world societies has been a simple matter of direct application to and importation and imposition on local experiences of movement. The idea, which traditionally referred to the permanent loss of British professionals to the United States of America during the 1950s and 1960s has been adopted unthinkingly to explain labour shortages in island countries, a problem which possibly could be explained by a different reason or set of reasons. The international movement of islander professionals is said to be a one-way flow, with counter flows or circulation assumed to be non-existent. Geographic mobility is presented as a process whereby the individual is “uprooted” from the homeland, the social links with which are discontinued.

Such misrepresentations have dominated conceptions of the international movement of skilled citizens from the third world. In his work, Patinkin (1968:94), a proponent of the nationalist school of thought, once argued that if these individuals (skilled migrants) did not themselves attach a value to living within the cultural, ideological and historical milieu of their original country; if they felt no ties to birthplace, family or specific social structure; if they felt no difficulty in leaving their native language and living their lives with an acquired tongue; if they attached no importance to the

national aspiration of their countries... then the movement of skilled manpower to where salary and working conditions were best could not be prevented.

This viewpoint, while assuming a structured and universal behaviour, ignores a complex of other contexts that are also significant in the decision to move. By considering the local contexts of culture, family and community, powerful meanings to people's movement can be revealed. In these contexts, the movers - regardless of career associations or qualifications - share the same identity through family and community connections. These merit serious attention, since their consideration in research and incorporation into planning would help to broaden perspectives on the dynamics of islander movements.

Locally oriented travels: meanings and complexity

The migration constructs already discussed are problematic when placed against the backdrop of not only the actual experiences of the movers, but also "the locally oriented significance that Islanders attach to their purposes and values in travel" (Peter, 1996:18). Locally oriented travels are clearly manifested through frequent visits to islands of origin and to the continuing flows of material goods, money and ideas between and among travelers and their island-based families. These flows occur not only between the island homes and overseas, but also among relatives in the different metropolitan settings.

In their analysis of studies of mobility among indigenous populations in Africa and the Pacific, Chapman and Prothero (1985) provide much evidence of the "constant ebb and flow" that constitute a major part of life at family and community levels. Their conclusion emphasizes the persistence of locally oriented journeys that are often overshadowed by conventional analysis.

Although the dominant argument on international mobility over-emphasizes the one-way flow of remittances from overseas to the islands (Brown and Walker, 1995), there is ample evidence of persistent counter-flows of goods from the islands. Ongoing visits among islanders to their relatives in metropolitan cities signify also the transfer of island goods and values to those places. As Hau'ofa (1993:13) argues: "(F)or everything homeland relatives receive they reciprocate with goods they themselves produce". These "invisible" reciprocal exchanges and mobility escape the proclaimed "accurate" data collection of migration scholars, consultancy experts and development planners.

It is only recently, however, that the challenge of the complex mobility system among Pacific islanders has seemingly dawned on the minds of some conventional migration specialists. With a strong flavour of post-modernist thinking, Connell (1995) analyses Samoan migration as depicted mainly through two of the novels, *Sons for the Return Home* and *Ola*, of prominent Samoan writer, Albert Wendt — himself a professional claimed to be part of the brain drain syndrome. The Samoan migrant that Connell sees in Wendt's novels is one with an evolving identity over time...apparently from being a “permanent migrant” in New Zealand in the 1960s and 1970s to a contemporary one with an “ambiguous” identity. Connell (1995:277) sees this latter stage as “reflecting a more complex Polynesian... and the diversity of the lives of now middle-aged Samoans, as they overcome both distance and difference”. In such a world, as depicted in *Ola*, characterized by the “flexibility of metaphor, culture and geography...notions of stability and coherence have disappeared”. Connell (1995:276) seems convinced that “[d]ichotomies are no longer useful, as the world is revealed to be far more complex involving ‘movements in specific colonial, neo-colonial and post-colonial circuits, different diasporas, borderlands, exiles, detours and returns’”.

The danger, however, of situating Samoan (and other islander) mobility in the frame of post-modernism is the disappearance of one's roots, for “[t]o have multiple roots is to have no roots” (Strathern, 1991:90; quoted in Connell, 1995). Thus, Pacific people are, once again, subject to new constructs such as “multiple identities” that at least in theory can easily dissolve the rootedness of islanders in their cultures and values. However, as clearly evident in several of Wendt's comments in previous interviews, there is no disputing his “Samoanness” and the fact that his roots are in Samoa. “As a person I'm Samoan and I write about Samoa...I need a sense of roots, of home — a place where you live and die. I would die as a writer without roots...” (Beston and Beston, 1977:153; quoted in Connell, 1995). This rootedness to the homeland has both tangible and intangible forms which need to be considered in mobility research.

Similarly, the economists Brown and Walker, in a report of their survey on remittances among Sydney-based Tongans and Samoans, admitted that “since remittances can take many forms and pass through different channels and networks, there are clear obstacles to making definitive assessments” (1995:15). The obstacles encountered by Brown and Walker are clearly those parts of reality that do not fit within the framework and requirements of their “rigorous statistical analysis”. Bonnemaïson's work with the Tanna community in Vanuatu identifies complex, yet locally

defined and meaningful movements among these people. Advancing into the deep meanings of movement among Tanna residents, Bonnemaision (1985:30) describes the process with a “contradictory” metaphor of the tree and the canoe. The tree is a “symbol of rootedness and stability” and the canoe symbolizes “journeying and unrestricted wandering”. Paradoxical as it seems, this metaphor simply emphasizes the complex dynamics of islander mobility that spreads out spatially and socially, yet it is anchored in the community of origin. Moreover, it indicates that people’s movement is not only part of a social and cultural setting but also is maintained through shared identities.

In her study of population mobility on Manihiki atoll in the Cook Islands, Underhill (1989:165-166) observed that “not only individuals constitute the mobile unit, but also they are part of a wider group — the domestic unit and the collective household — themselves each located within a particular socioeconomic environment”. Mobility, according to Underhill, is a household strategy. Mobility patterns are dominantly circular and it is these recurrent patterns that both create and sustain bi- or multi-local households. The existence of multi-local households indicates the fluidity and continuity of islander mobility within and beyond atoll homes. More important, these movements speak of a social/family system that cannot be contained within the limits of an atoll environment. As Underhill indicates clearly, the travels of the Manihiki peoples have transcended geographical and national boundaries so that the household expands socially and geographically. With contemporary socio-economic advances in copra production and pearl-shell farming, Manihikian mobility cannot adequately be presented by such limiting constructs as urban/rural and metropolitan/local, but in fact both stimulates and increases the possibility and intensity of complex circulation.

Moving and rootedness: Samoan movement in the context of the *‘aiga*

Attempts to analyse the movement of “skilled” Samoans should begin with an understanding and appreciation of family structure and, in this paper, the *‘aiga* (extended family) is the primary point of reference. Why focus on the *‘aiga*? The concern here does not imply support for a dualism of culture (*‘aiga*)/modernity, since this carries the danger of promoting the very same “differences” embedded in dualist thinking of rural/urban and traditional/modern. Rather, the focus on the *‘aiga* acknowledges the place where one’s roots and identity are anchored. Disconnect people from the *‘aiga*, an act quite impossible in the world of *fa’ a Samoa* (Samoan way of life), and they are disconnected from the cord of identity.

The intention here is not to paint a picture of a perfect, traditional, Samoan *'aiga*, especially given the complex socio-economic and political transformations that Samoa has experienced over the last 200 years. To do that would not only be erroneous, but would also impose more damage than good on the image of *'aiga*. Neither is it the intention to bow to dominant misrepresentations of Samoan family structure and *fa 'a Samoa* as a disintegrating unit swamped by the forces of modernization. Rather, it is maintained that the *'aiga* remains the fundamental force guiding and sustaining social actions, behaviour and relations among Samoans. The *'aiga* also is central to movement, because of its capacity simultaneously to bind and to distribute relatives across geographic and social spaces. This reality is embedded in the Samoan proverb: *E sui faiga ae le suia fa'avue*, meaning that forms and ways of doing things may change, but their foundations remain. Changes that have been incorporated in *fa 'a Samoa*, of which the *'aiga* is central, should not be taken necessarily as indicating basic alterations to ideas that underlie reciprocal exchanges and relations.

The Samoan *'aiga* constitutes blood relations and connections through marriage or adoption. It is not geographically confined, although its members usually identify with both the maternal and paternal villages as their places of origin. The *'aiga* is a web of social relations and a unitary core that is intact and yet also flexible and unbounded, so much so that it transcends social boundaries. Every extended family has its own *pa'ia* and *mamalu* (sacred attributions) and *fa'alupega* (honorary addresses), which distinguish it from other *'aiga*. Samoans understand that embedded in each *'aiga* member is that *pa'ia* and *mamalu* which provide the basis for all social interactions and exchange at the levels of both the individual and the community.

'Aiga members overseas and in the islands are not considered individuals in the Euro-American sense of the word. When meeting for the first time, Samoans ask the question: "Where about is your *'aiga* or village?", not "What is your name?" The latter question, when asked in an inappropriate context, may be offensive to Samoans because of its directness to the individual and away from the *'aiga*. Enquiring about one's *'aiga* emphasizes the centrality of an individual's communal identity rather than that individual *per se*. One's identity, then, is rooted not within the self but encompasses the whole *'aiga*, giving rise to the double reflection of the individual in the *'aiga* and the *'aiga* in the individual.

In this context, the Samoan professional is not an individual who, as commonly perceived and interpreted, merely embodies capital and knowledge. Nor is he or she just an individual with the label "skilled

migrant” assigned by census experts, migration scholars, social scientists and politicians. Rather, the skilled Samoan is fundamentally part of a collectivity, one part of the ‘*aiga* and one part of the community of origin. It is the ‘*aiga* that forms the basis and meaning of one’s particular identity. It is also within the ‘*aiga* that the practice of reciprocal exchange takes place, thereby strengthening and sustaining ties of kinship. Understanding the movement of skilled Samoans is thus neither derived from nor narrowly focused on individual attributes as in Western-based notions of professionalism and skills, but encompasses cultural values of anyone who moves.

This dimension is important in analysing the relationship between movement and development. In spite of geographic separation and territorial distinctiveness, overseas-based Samoans and their ‘*aiga* in the islands have one familial identity. The practice of remitting money or goods is basically reciprocity and speaks to a reality that is profoundly cultural. Remitting takes place not because, as commonly claimed by migration scholars, those away want to retain kinship ties, but *because of* those ties. It is the ‘*aiga* and identity that drive the practice of remitting, not the other way around. It is not that people must superficially *keep* their relations; they are born into them and travel with them. One can choose physically to separate oneself from or deny the ‘*aiga* but, in the world of *fa’a Samoa*, one is still identified on the basis of that age-old connection.

Movement of Samoan professionals: findings of a study

In 1993, the author undertook a study that initially had little to do with “brain drain” as part of the Master’s degree in development studies course at the University of the South Pacific, Fiji. This enquiry examined the patterns, causes and consequences of occupational moves made by Samoan professionals within and beyond Samoa (Liki, 1994). It was based primarily on formal interviews with a sample of 109 Samoan professionals who were working at the time in Fiji, New Zealand and Samoa. Government leaders, including the Prime Minister, government ministers and department directors, as well as heads of the three mainstream churches in Samoa (Catholic, Methodist and Congregational Christian), were involved in the interviews. The brain drain issue emerged as a major point of discussion among members of both groups, although their perspectives were quite different.

Since the late 1970s, a significant number of Samoans who formerly were government employees have worked in various regional institutions in the Pacific. The Department of Statistics “guesstimated” that their number by the early 1990s was between 80 and 150 and that the majority were in

Fiji, as the fastest growing regional centre of commercial and administrative affairs (Muagututi'a, personal communication, 1993). Many more are in New Zealand and data from its Department of Statistics show that by 1992 a total of 903 skilled Samoans were in that country. This number, however, could be underestimated, since many highly qualified Samoans may be included in the category of "New Zealand citizen".

At the time of field enquiries in 1993, those working in Fiji were with one of the following institutions: the University of the South Pacific, the Forum Secretariat, the South Pacific Applied Geoscience Commission, the South Pacific Commission and the South Pacific Regional Environment Programme. Skilled Samoans in New Zealand consisted of those who were either self-employed in their own business or working in the private or government sectors. Although those interviewed were not statistically representative of the whole population of Samoan professionals, the responses of the selected sample provided interesting information which merits discussion.

The study revealed that a dialogue existed between Samoan leaders and skilled local professionals, which revolved around the brain drain issue and which clearly replicated the nationalist-internationalist debate discussed previously. Samoan leaders agreed that the country's labour market suffered from the loss of skilled personnel and emphasized that Samoan professionals needed to show loyalty to their country -this being a solution suggested to counter emigration. The professionals, however, raised two significant points. First, their decision to leave for overseas-based jobs had much to do with their dissatisfaction with government work, and unattractive economic and political spheres of employment in the public service were identified as key reasons for departure. The second point was to question the meaning of brain drain. One professional interviewed in Fiji suggested: "The brain drain concept needs to be redefined. My own interpretation is that Samoans in regional institutions still work for Samoa through the development programmes for the island countries we are involved in".

Many spoke of the continuing commitment they have to relatives in Samoa. All, while living outside Samoa, have been visited more than once by their relatives from home. They also have had requests for financial assistance: from parents, from siblings and from other extended family members in the islands. The Fiji-based professionals, through their careers with regional institutions, travel back and forth between Samoa and other Pacific islands. Because of the contractual nature of their careers in Fiji, Samoans have no right to become permanent emigrants. All held an initial

three-year work contract which had been frequently extended, thus prolonging their stay but not guaranteeing permanent residence in Fiji.

The New Zealand-based professionals, however, spoke not only of their continuing involvement with major *fa'alavelave* (obligations) of their 'aiga in the islands, but also of their role in the affairs of the Samoan community in New Zealand. Samoan historian Malama Meleisea, himself resident in New Zealand, pointed out in an informal conversation how most Samoan professionals in New Zealand hold positions that involve them in providing services to the total of 85,000 Samoans living there. On this basis, he questioned the relevance of concepts of "drain" and "gain" in the case of Samoan professionals, who range from university instructors to travel agents and to social welfare specialists in support services administered by the Government.

From this dialogue between local leaders and skilled Samoans abroad, the perspectives of each group reflected different orientations and beliefs. From a development-based view, government leaders declared the "emigration" of Samoan professionals to be a critical problem affecting the supply of skilled personnel to the national labour market. The professionals, however, acknowledged and valued their continuing involvement in the world of their 'aiga and of communities both at home and overseas. They argued that being away from the country should not be equated with discontinuation of such commitments or being uprooted from Samoa.

Moreover, contributions that sustain connections to Samoan 'aiga are not restricted in the forms of goods and money remitted. Many Samoan professionals living overseas have expressed through writing their sense of connectedness to their 'aiga. Almost all of Wendt's novels and poems, such as *Sons for the Return Home, Ola* and "Shaman vision", articulate the dynamics of the 'aiga. Meleisea (1980, 1987, 1992) tends to reflect on the historical development of modern Samoa so as to raise awareness among contemporary leaders of the danger of being absorbed into the mission of development and modernization. Many young Samoan scholars and writers, both those born locally and overseas, engage themselves in such issues as culture and identity in an attempt to reaffirm their 'aiga connections (Simi, 1992; Malifa, 1992; Figiel, 1996; Fairbairn-Dunlop, 1997; Kruse-Vaai, 1998).

It is interesting to note that the strength of the 'aiga has continued to thrive among the children of original Samoan migrants. The established role of the Samoan church in cities such as Auckland, Wellington, Sydney and Los Angeles has made a positive contribution to the maintenance of Samoan identity. The question of "who am I?" has become increasingly

important among New Zealand-born Samoans, for example. This is obvious in the emergence of art work including tattooing, emphasizing Samoan life and identity, island-oriented fashion shows and the increasing number of overseas-born Samoan scholars whose work explores the persistence of *'aiga* and Samoan culture in a post-modern world (for example, Salesa, 1997; Anae, 1998; Lima, 2000).

While such a trend reflects the search for identity among the younger generations of overseas-based Samoans, their strength has been a result of constant travels between the islands and the metropolises made possible by frequent airline services and the modern means of communication available today. Viewed from this perspective, it seems highly unlikely that commitment to the *'aiga* will diminish in the near future. In the contemporary world, where roots and identity have become increasingly valuable to one's sense of survival, generations of young Samoans overseas may continue to find a sense of completeness in their rootedness in their *'aiga*.

Conclusion

This paper has argued a case for understanding the movement of Samoan professionals in the context of the *'aiga*. Given dominant beliefs embedded in the idea of brain drain, there seems no room for "alternative ways of knowing" (Chapman, 1995). However, the experiences of these Samoans are paradoxical to conventional images of movement, for they are part of a context that both considers and values the traveller as part of the whole - the *'aiga*. Because of that connection, Samoan professionals cannot be viewed as "permanent migrants" uprooted from their island homes and wandering in a world within which they cannot find themselves. Like the canoe and the tree in Bonnemaison's (1994:321-22) metaphorical phrase, the goal of the Samoan professional is to "circulate, to go beyond the tree, to move from place to place and island to island...to the Big Land and the most powerful of allies very far away....[T]he infinite number of his roads and the rootedness of his places make him forget that he is surrounded by definite space".

Samoan mobility spans geographic and social spaces, yet is firmly anchored in the *'aiga*. Viewed from this context, Samoan professionals are travellers who, through the very process of travelling, are continually drawn closer to home, where their roots and identity lie. Thus, the movement of Samoan professionals would not constitute a "drain" as often claimed. This concept is meaningless in the long run, especially because modern Samoa

has established its own institutions of higher learning and is training its young people in regional universities and institutions based in other islands of the Pacific. These institutions are already producing well-qualified graduates for quite a limited number of professions available in the local labour market. From a policy point of view, it is in Samoa's best interest and a monitor of the country's economic health that the circulation of its skilled population within the Pacific and beyond continues to take place. This circulation will also mean continuity of *'aiga* identity.

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