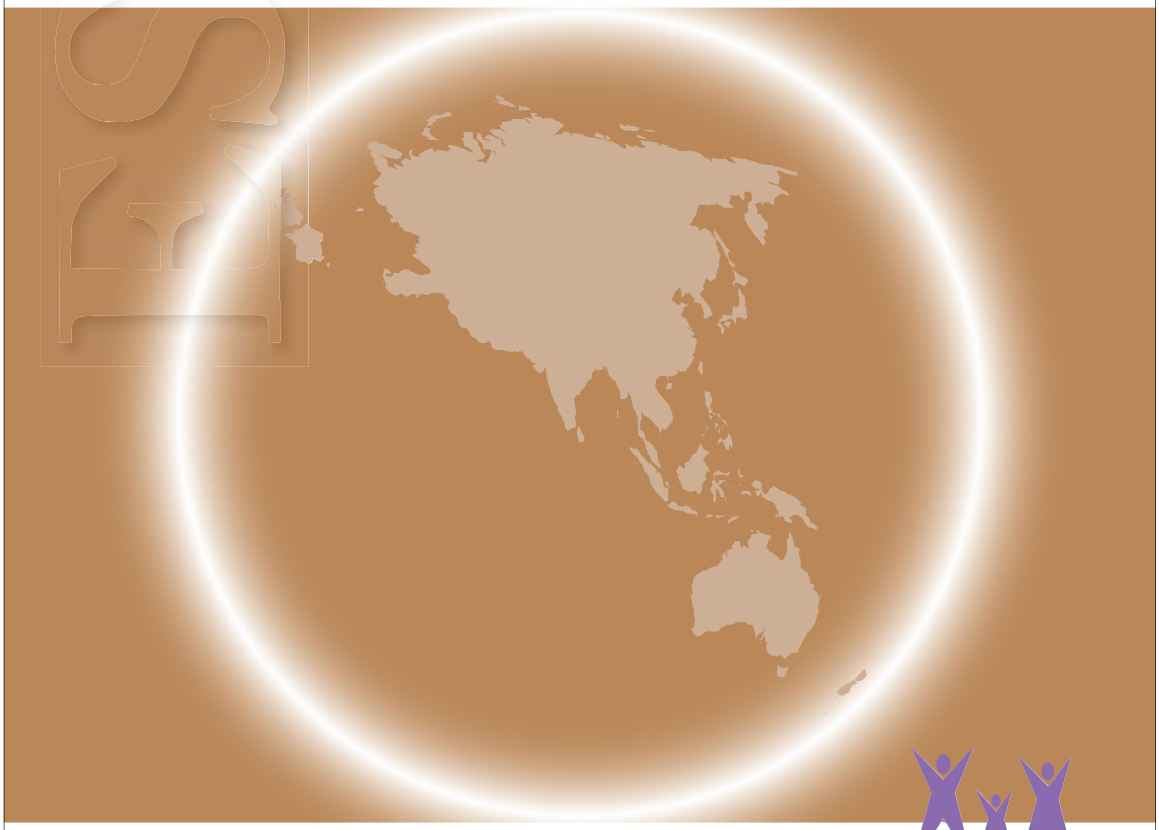
Vol. 26, No.3,
September 2011

Asia-Pacific Population Journal



Inside Front Cover
Blank

Asia-Pacific Population Journal

Full text of articles available at:
www.unescap.org/appj.asp

ASIA-PACIFIC POPULATION JOURNAL
Vol. 26, No. 3, September 2011

The Asia-Pacific Population Journal is published at least twice a year in English by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

The Journal provides a medium for the international exchange of knowledge, experience, technical information and data on population related issues as a basis for policymaking and programme development.

References to dollars ($) are to United States dollars, unless otherwise stated.

ST/ESCAP/2626

CONTENTS

Page iv Blank
(no page number)

Page

life expectancy for males had decreased marginally by 0.1 years during the same reference period. On the other hand, with a 4.2 year gain in longevity at age 60 plus among females during 1971-2001, their working life expectancy increased by 2.4 years during the same reference period. Work participation has shifted from the primary to the formal sector, which indicates an increase in productive activity in the post retirement period.

Contraceptive (In)Security in South-East Asia[i]

In South-East Asia sexual and reproductive health needs remain substantial and are not adequately met by the current supply of contraceptive products and services. While financial and technical scarcity persists, it is the facilitation of the policy environment and the fulfilment of equity principles in the delivery of contraceptive methods that present the greatest challenges in achieving contraceptive security. A regional advocacy agenda should address ideological objections to modern contraceptives and to people's contraceptive choices and ensure that contraceptive security is meant for all and not only for privileged groups and countries.

By Rosalia Sciortino*

The late 1990s saw the concept of "contraceptive security" defined as the ability of every person "to choose, obtain, and use quality contraceptives and condoms for family planning (FP) and for protection from sexually transmitted infections (STIs), including HIV" (USAID, 2008). The concept re-emphasizes the notion that contraceptive supplies[ii] are the cornerstone of family planning and STI/HIV prevention and that ensuring and maintaining the availability of contraceptive commodities — comprising hormonal methods (contraceptive tablets, injectables, implants, rings or patches), intrauterine devices (IUDs), barrier methods (condoms and diaphragms) and supplies to perform vasectomies and tubal litigations — is instrumental not only to attain better sexual and reproductive health (SRH), but also to reduce poverty and foster development (Finkle, 2003; PATH & UNFPA, 2006; IPPF, 2008).

The conceptualization of contraceptives as essential commodities for human well-being brought new urgency in addressing supply gaps

* Regional Director for Southeast and East Asia, International Development Research Centre (IDRC), Office for Southeast and East Asia, Singapore and Associate Professor, Institute of Population and Social Research, Mahidol University, Thailand.

caused by increasing demand in the face of insufficient funding and inadequate service delivery and logistics systems. Financing of commodities is being tackled through high-profile initiatives at the global level, but many challenges in building national capacity for commodity forecasting, procurement, financing, and delivery still remain. There is also recognition of the fact that efforts to provide contraceptives and other SRH supplies and services could not be separated from a broader socio-political environment and the overall functioning of the health system.

To better understand how the interaction of global and local processes affect contraceptive use and choices at the regional and country levels, the status of contraceptive security in South-East Asia,[iii] a region that has received relatively little attention despite its substantial SRH needs, is explored in this article. The material presented is based on a synthesis review of published material, gray literature and internet sources, conducted in 2009 and published as a report a year later (Sciortino, 2010), and updated here.

The article is arranged in four main sections. In the first two sections, an overview of SRH in the region and the related contraceptive gaps are presented, while the third section deals with current efforts to provide contraceptive services in various South-East Asian countries. The article argues that existing needs are not yet fully met for reasons that are only partly of a financial nature. In the final section of the article, a regional advocacy agenda is proposed to enhance the delivery of contraceptive services and commodities and realize contraceptive security in South-East Asia.

SRH: a regional overview[iv]

In South-East Asia, SRH differentials are intertwined with socio-economic disparities. Thus, the relatively more advantaged countries – Brunei Darussalam, Malaysia, Singapore, Thailand and, to a certain extent, Indonesia, the Philippines, and Viet Nam – have better SRH indicators than resource-poor countries such as Cambodia, the Lao People's Democratic Republic, Myanmar and Timor-Leste.

In general, maternal mortality and morbidity rates are high, with six countries in the region having maternal mortality ratios (MMR) of over 200 deaths per 100,000 live births. The disparities between regions inside each country are substantial. In the Philippines, for instance, MMR estimates are 50 deaths per 100,000 live births in the National Capital Region, 160 deaths per 100,000 live births in region eight, and 320 deaths per 100,000 live births in a more disadvantaged autonomous region of Muslim Mindanao (Rosell-Ubial, 2008, p. 53). More generally, access to

skilled attendants is lower among the poorest quintiles and MMR is higher in rural areas because of weaker infrastructural development, lower literacy levels and higher levels of poverty when compared to urban areas. Maternal morbidity has not been recorded properly, but the estimation of it being thirty times the number of maternal deaths (UNFPA, 2006, p. 2) implies a substantial burden of pregnancy-related illnesses in the region.

Table 1. Maternal health indicators for South East Asia, 2005

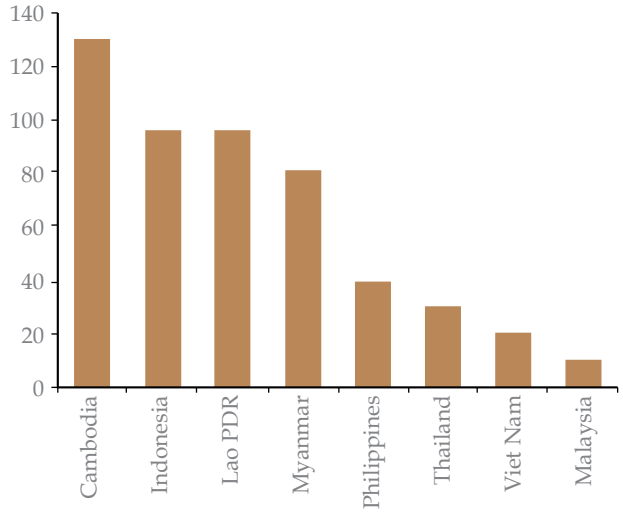
	MMR (per 100,000 live births)	Range of MMR estimates	Lifetime risk of maternal death (1 in)	Number of maternal deaths
Lao PDR	660	190-1 600	33	1 300
Cambodia	540	370-720	48	2 300
Indonesia	420	240-600	97	19 000
Timor-Leste	380	150-700	35	190
Myanmar	380	260-510	110	3 700
Philippines	230	60-700	140	4 600
Viet Nam	150	40-510	280	2 500
Thailand	110	70-140	500	1 100
Malaysia	62	41-82	560	340
Brunei Darussalam	13	3-47	2 900	1
Singapore	14	14-27	6 200	5

Source: World Health Organization et al (2007, p. 23-27)

In South-East Asia, in line with global patterns, 60 to 80 per cent of all maternal deaths can be attributed to obstetric haemorrhage, sepsis, obstructed labour, hypertensive disorders and unsafe abortions. Abortion-related mortality, however, is thought to be higher than the global average of 13 per cent, reaching 19 per cent of all maternal deaths in the region (UNFPA, 2006 p. 1-2, 11). Cambodia, Indonesia, the Lao People's Democratic Republic and Myanmar have the highest number of abortion-related deaths, while Malaysia, Thailand and Viet Nam have the lowest (see figure 1).

Although the region's post-abortion care is limited and, often, with no contraceptive provision (Warriner and Shah, 2006), except for Cambodia, Singapore and Viet Nam, abortion is illegal or officially limited to a few conditions. Abortion rates are still high, with Viet Nam and Indonesia having among the highest figures in the world. In Viet Nam, about 504,377 abortions or 38.7 abortions for every 100 live births were recorded in 2003 (Do Thi Hong Nga, 2008); and in Indonesia, 2 million induced abortions were performed in 2000, implying that the annual

Figure 1. Unsafe abortion-related deaths per 100,000 live births



Source: UNFPA, 2006 p. 11 (Adapted from IPAS Policy Fact sheet).

abortion rate is higher than that of Asia as a whole (37 and 24 abortions per 1,000 women of reproductive age respectively) (Sedgh and Ball, 2008, p.1).

STIs are widespread in the region. South-East Asia is a high-prevalence area for hepatitis B, and the World Health Organization (WHO) estimates that the largest proportion –almost 50 per cent – or about 340 million of new STI infections occurring each year happen in South and South-East Asia, especially among the youth (WHO 2007, p. 3). The regional estimate of HIV prevalence among adults aged 15-49 years old is relatively low, in the range of 0.2-0.4 per cent, but the absolute numbers are significant with about 1.7 million people in 2007 living with HIV/AIDS in South-East Asia (UNAIDS 2008). Thailand, Cambodia, Viet Nam, Myanmar and Indonesia are among the top six countries in Asia in terms of adult cases per 1,000 of population (ADB 2010, p. 96). While in Cambodia and Thailand the epidemic is slowing down, this is not yet the case with Indonesia and Viet Nam.

The major identified sources of HIV transmission are unprotected sex with irregular partners and the use of contaminated instruments for injecting drugs. More and more, however, new cases of infections are women who have acquired HIV from unsafe sex with their stable partners. In Thailand, this group accounted for more than 4 in 10 (or 43 per cent) of new infections in 2005 (UNAIDS and WHO, 2008, p. 16). In

Cambodia, husband-to-wife transmission has become the main transmission route accounting for two-fifths of new infections (Chaya, 2006, p. 5). In Malaysia, the largest proportion of infected women is married (CCR & Arrow, 2005, p. 20).

Contraceptive reach and demand

South-East Asia's reproductive health picture, with its high numbers of unwanted pregnancies, abortions and STIs, reflects the insufficient reach of contraceptive commodities and services. Although the region as a whole has a relatively high contraceptive prevalence compared to other parts of the developing world (Harvard Gazette, 2007), the absolute use of contraceptives in certain countries and groups remains low in spite of high unmet need. Moreover, traditional methods often account for a considerable proportion of the Contraceptive Prevalence Rate (CPR). The share of contraceptive users opting for periodic abstinence, withdrawal or country-specific methods range from 2 per cent in Thailand to 25 per cent in Malaysia (PRB, 2008, p. 76), and these official statistics do not include single adolescents and adults who often resort to traditional methods having limited access to modern methods.

As table 2 shows, contraceptive prevalence is the lowest in the poorest countries of South-East Asia. CPR in Timor-Leste is as low as 10 per cent while in Cambodia, the Lao People's Democratic Republic and Myanmar it is between 30 and 40 per cent. The Philippines and Malaysia, countries that have restrictive policy environments, demonstrate slightly higher CPRs of around 50 per cent, more than a third of which are traditional methods. At the other end of the spectrum, the middle- and high-level income countries of Indonesia, Singapore, Thailand and

Table 2. Contraceptive prevalence rates in South East Asia

	CPR any methods	CPR modern method
Brunei Darussalam	--	--
Cambodia	40	27
Indonesia	61	57
Lao PDR	32	29
Malaysia	55	30
Myanmar	37	33
Philippines	51	36
Singapore	62	55
Thailand	72	70
Timor-Leste	10	9
Viet Nam	78	67

Source: National DHS and other sources in PRB 2008, 13.

Viet Nam, which have had long-standing family planning programmes, boast high CPRs in the 50-70 per cent range and, with the exception of Viet Nam, a small proportion of traditional methods.

Within countries, contraceptive use increases with women's education and wealth status. In Cambodia, non-users and users of traditional methods are concentrated in the poor quintile, especially in rural areas (Cambodia et al, 2005). Disparities also occur along geographical and ethnic boundaries. In 2003, the CPR of married women in Thailand was estimated to be as high as 83 per cent in the northern region, but around 70 per cent in the southern region where the Malay population is concentrated (CCR and ARROW, 2005, p. 14). In Viet Nam, the Central Highlands, with their diverse ethnic minority population, show the lowest CPR in the country (Teerawichitchainan, 2008; UNFPA, 2009). Supply and demand side barriers hampering access and use of contraceptives among disadvantaged groups are many, such as costs, distance to service delivery points and lack of information and knowledge, as well as cultural and social values (Sciortino, 2008).

The gap between women's fertility preferences and their use of contraception, albeit reduced in recent years, has still to be closed. According to estimates, in South and South-East Asia in the 2000-2005 period 11 per cent of married women of reproductive age had an unmet need for contraception both for spacing and limiting births. These figures overshadow great inter- and intra-country variance, with rates of unmet needs for family planning varying from 40 per cent in the Lao People's Democratic Republic and 30 per cent in Cambodia and the Philippines to 9 per cent in Indonesia and 5 per cent in Viet Nam (Sonfield, 2006; PRB, 2008). In the Philippines—a country, where more than half of all pregnancies are unintended—the percentage of married women with unmet needs averages 18 per cent in the National Capital Region of Metro Manila, but reaches 60 per cent in the autonomous region of Muslim Mindanao (ARMM) and 87 per cent in the ARMM poor quintile (Darroch et al, 2009, p. 2).

Information about the unmet need of never-married women of all ages is not readily available as they are not included in CPR data, reflecting the official position of most South-East Asian Governments that contraception is a need for married couples only. The exclusion of this vulnerable group is also reflected in their not being counted in forecasting of commodity demand, in management information systems and in outreach efforts. Not-yet-married young people of both sexes are also overlooked in information gathering as well as services (Hull and Mosley, 2008; Khuat Thu Hong, 2003). Still, based on the increasing number of single, sexually active, adult women in South-East Asia, the many who decide not to marry (Jones 2005) and the growing number of young people of both sexes having pre-marital relations, it can be deduced that unmet needs are high in this population group. Other underserved

populations include ethnic communities, migrants, refugees and displaced people, marginalized urban communities and people living with HIV, to name a few.

It also needs to be noted that, discouraged by entrenched gender values, the role of men in fertility reduction remains minimal, with negligible numbers of male sterilizations, limited condom use and a widespread preference for withdrawals. In particular, there is an unmet need for condoms. Socio-cultural barriers hamper open condom promotion and family planning programs prefer long-lasting methods from a population control perspective. When national AIDS programs promote mainly male condoms to prevent HIV transmission, they limit their provision to groups considered at risk such as sex-workers, injecting drug users and men who have sex with men (MSM). In Indonesia, even in government programmes, differentiated branding and packaging of condoms is envisaged in social marketing efforts for those groups as if to keep them apart from the "safe" general population.

As a result of this dual approach, condom use is widespread in these so-called risk-groups but remains low overall. In Cambodia, for instance, from 1997 to 2003, consistent condom use among police officers grew from 65.6 to 94.2 per cent in commercial sex interactions, but only from 11.4 to 41.2 per cent in intimate relationships. More generally, "less than 20 per cent of sexually active Cambodian men and women have ever used a condom, representing an enormous unmet need" (PSI, 2004, p. 2). Inconsistent condom use is also rife, implying opportunities for greater use of condoms if adherence could be increased. In Singapore, in 2004, 45 per cent of the surveyed clients of sex workers used condoms inconsistently (Wee *et al*, 2004) and in Indonesia less than 10 per cent of male clients consistently used condoms though more than 50 per cent were married or had regular partners (Hudiono, 2006). Still, women have no alternative contraceptive methods at their disposal, as female condoms, available in parts of Asia since 1995, remain unfamiliar and poorly accessible (Vijerasa, 2009).

If the existing gaps are addressed, it could be expected that the already large demand for contraception in South-East Asia will expand. In Indonesia, for instance, it has been calculated that satisfying the unmet need of married women for spacing (4 per cent) and limiting (5 per cent) births would result in an increase in CPR from 61.4 to around 71 per cent (BPS and Macro International, 2008,). The increase would be greater if excluded groups such as single men and women are included, and if prevention of STI/HIV is integrated in reproductive health programmes for the general population. Growth in demand can also occur if the switch from traditional to modern methods increases, discontinuation of modern contraceptive use is reduced, and adherence in contraceptive use, including consistent use of condom use, is enhanced (see Cleland and others 2006).

An additional driver of future demand for contraceptive services and commodities is South-East Asia's expanding population, with large numbers of young people entering reproductive age. Although fertility in the region started to decline in the 1960s and is now reaching the replacement level of about two births per couple, the overall population is expected to grow from 586 million in 2008 to 826 million in 2050 as the demographic momentum continues to build (Hirschman, 2001; PRB, 2008). Nevertheless, countries are at different stages of demographic transition. As table 3 shows, while Singapore and Thailand are well below replacement levels, Cambodia, the Lao People's Democratic Republic, the Philippines and Timor-Leste have total fertility rates in the range of 3.0 to 6.5 children per woman. Consequently, while in Singapore and Thailand the share of people below 15 years is around 20 per cent and declining, in other countries in the region it is in the 25 to 45 per cent range and generally growing. How these rates translate into absolute numbers depends on the population of various countries, especially since population distribution in South-East Asia is very unequal. The least populated country in the region, Brunei Darussalam, is expected to grow from 400,000 people in 2008 to 600,000 people in 2050, while Indonesia, the most populous country in the region and the fourth most populous country in the world, is projected to increase from 239 million in 2008 to 341 million in 2050 (PRB, 2008). In terms of population below 15 years of age, and thus potential future contraceptive users, even if their share in both countries is around 30 per cent, Brunei Darussalam would account for about 120,000 while Indonesia for more than 69 million contraceptive users.

Table 3. Selected demographic data and estimates for South East Asia

	Births per 1,000 population	Total population (millions) (2008)	Projected population (millions) (2050)	Total fertility rate (TFR)	Per cent of population of ages	
					<15	65+
Brunei Darussalam*	19	0.4	0.6	2.0	30	3
Cambodia	26	14.7	30.5	3.5	36	4
Indonesia	21	239.9	343.1	2.6	29	6
Lao PDR	34	5.9	12.3	4.5	44	4
Malaysia	21	27.7	40.4	2.6	32	4
Myanmar	19	49.2	58.7	2.2	27	6
Philippines	26	90.5	150.1	3.3	35	4
Singapore	11	4.8	5.3	1.4	19	9
Thailand	13	66.1	68.9	1.6	22	7
Timore Leste	42	1.1	3.0	6.7	45	3
Viet Nam	17	86.2	112.8	2.1	26	7
South East Asia	20	586.0	826.0	2.5	29	6

Source: PRB, 2008; *UNFPA, 2008:8.

Considering these and other factors, an augment in contraceptive use and demand is projected for most of the region. Incremental increases are expected rather than great leaps, with a possible exception in the use of condoms, if the environment becomes more enabling. Still, numbers of additional contraceptive users will be great, requiring a greater financial and political commitment by countries in the region in the realization of contraceptive security.

A typology of contraceptive landscapes

In South-East Asia, the degree to which governments are uncommitted to contraceptive security varies according to religious, demographic and economic reasons. Thailand stands out in the region as coming close to contraceptive security, while all other countries have more insecure environments. Based on diverse contraceptive landscapes, a typology can be construed consisting of: (a) countries taking a pro-natalist stance for moral or demographic reasons that oppose or reduce access to modern contraceptives, namely Brunei Darussalam, Malaysia, the Philippines, and Singapore; (b) countries, like Indonesia and Viet Nam, with strong family planning programs that emphasize the methods considered more effective in achieving population control, yet neglecting short-term contraceptives; and (c) countries such as Cambodia, the Lao People's Democratic Republic, Myanmar and Timor-Leste, hampered by a lack of resources in the provision of contraceptive supply and services, with some countries also not fully supportive of contraception.

Countries with pro-natalist policies

In the first category of pro-natalist countries, Brunei Darussalam, Malaysia and the Philippines view the use of modern contraceptives as against their religious tenets, either because of strict Islamic interpretations in Malaysia and Brunei Darussalam or because of conservative Catholic views in the Philippines. In Singapore, selective procreation policy is considered essential to long-term development because the country has one of the "lowest-low" fertility rates in the world (Yap Mui Teng, 2007). Conservative ideologies in all these countries further condemn condom promotion for HIV/STIs prevention as being against "family values". Even in Malaysia, South-East Asia's second major producer of condoms, including female condoms, thanks to its ready supply of rubber (Howe, 2005, p. 6), the Ministry of Health avoids direct procurement and distribution of condoms out of concern that it could be "misinterpreted as advocating promiscuity", leaving the necessary task to NGOs and the for-profit sector (Medical News Today, 2007).

Interestingly Malaysia, the Philippines and Singapore all had strong population control policies in the 1960s and 1970s and later took the current stand of abandoning modern contraceptives and instead promoting traditional methods. In Malaysia, use of the contraceptive pill, as the most popular method of contraception, dropped almost by half in the last three decades from 50 per cent in 1974 to 27 per cent in 2004, with many switching to the rhythm method (now the second-most popular method accounting for about 18 per cent of users) (Nai Peng Tey, 2007, p. 2). In the Philippines, emphasis on female sterilization has given way to the promotion of natural family planning, and only 33 per cent of married women in 2003 used modern contraceptives, of which, in a reflection of the past, 10 per cent were sterilizations (Connell, Cisek and Robertson, 2005, p. 9). A clear reduction in the use of modern contraceptives (and especially of sterilization) and a parallel increase in the use of traditional methods were also observed in Singapore after the introduction of pro-natalist policies in the 1980s (see Ross and others, 2005).

Table 4. Contraceptive use among currently married women 1982 and 1997 in Singapore

Date	Total prev.	Modern methods	Sterilization		Pill	Injectable implant	IUD	Male condom	Vaginals	Traditional
			Male	Female						
1982	74.2	73.0	0.6	22.3	11.6	-		24.3	14.2	1.2
1997	62.0	53.0	0.2	15.8	10.0	-	5.0	22.0	-	9.0

Source: MOH, Population Planning Section Data in Yap Mui Teng, 2007:213).

There is minimal updated information available on contraceptive use and supplies for Malaysia and Singapore from either governmental or non-governmental sources and no accessible data for Brunei Darussalam[v]. This lack of information reflects the reduced financial support for the promotion and provision of modern contraceptives in public services. In the Philippines, the central government has opted not to directly finance and procure modern contraceptives, tasking instead decentralized local government units (LGU). However, LGUs do not allocate sufficient resources, lack the capacity to forecast, procure or deliver contraceptives and/or oppose performing this task on religious grounds (Rauhala, 2008). A large percentage of total requirements (skewed towards contraceptive pills and sterilization kits) have historically been provided by the United States Agency for International Development (USAID), but since its phase-out in 2008, the United Nations Population Fund (UNFPA) has provided pills and injectables as a stop-gap measure on a cost-share arrangement with local governments.

Worries remain that the needs of the very poor, who are being estimated at around 30 per cent of the existing users of donated contraceptives, are not being met (Darroch et al, 2009, p. 6; Deliver, 2007, p. 4; Connell et al, 2005, p. 24). Commercial suppliers focus on the top end of the market, while social marketing organizations, often supported by USAID to reduce the burden on LGU budgets and ensure availability of contraceptives, are interested in lower-middle and upper-low income families, leaving the low-priced segment less well served (Connell et al, 2005).

In Malaysia, under the current reproductive health policy focusing on birth spacing (following the slogan "not to soon, not too late, not too close"), contraceptive methods in public health facilities are only accessible to married couples; there are limits for contraceptive advertising and educative programmes have been discontinued (CCR and Arrow, 2005). It is the NGOs, mostly the Federation of Reproductive Health Associations, Malaysia (FRHAM) and its 13 state members associations that have taken upon themselves a task of making contraceptives available at a subsidized cost. Private outlets sell a wide variety of contraceptives, including emergency contraceptives, but this option is reserved for those who can afford higher prices. Similarly, in Singapore, with a decrease in subsidies to commodities and the closure of government family planning clinics in the mid-1980s, private sources (pharmacies and drugstores) have substituted public sources (Yap Mui Teng, 2007, p. 206). The need for contraceptives to prevent unwanted or unintended pregnancies, however, remains, especially among women with economic constraints. AFP reported that abortions, legal in Singapore, increased during the financial crisis from 11,933 in 2007 to 12,222 in 2008 (Bristow, 2009).

Countries enforcing family planning programmes

At the other extreme end of the population policy spectrum, Indonesia and Viet Nam have taken an anti-natalist stand, enforcing a two-child policy to stem population growth. Initiated in the 1960s, the Indonesian Family Planning Program has been hailed as a demographic success contributing to the expansion of modern contraceptive use and halving the total fertility rate. Today, Indonesia is close to replacement level while the program has been scaled back, but the maintenance of the small family norm remains a priority in view of the still significant increase in population discussed in the previous section. Similarly Viet Nam, after decades of strong population control, relaxed the two-child policy in 2003, but is continuing the thrust of previous policies to address the "demographic bonus" characterized by an age dependency ratio of under 50 per cent as derived from having just achieved below-replacement levels (UNFPA, 2009).

The policy focus approving family planning, however, does not necessarily imply "full availability" of contraceptive methods, and thus contraceptive security. Both countries have in fact emphasized long-acting and permanent methods of family planning (LAPMs) and discouraged non-use as well as the use of less reliable temporary methods (as perceived by governments), attracting criticism for their disregard of women's choice and of quality of care concerns. Both countries have also opposed condom promotion for HIV/STIs among the general population having taken a conservative stand when it comes to sexuality. More particularly, Indonesia's family planning programme initially promoted IUD and sterilization (mainly tubal litigation). In the early 1980s it introduced implants – even if at the time still untested– and remains one of the few countries in the world to have used them in large numbers, notwithstanding the lack of a proper support system (Smyth, 1991; Hull and Mosley, 2008). Viet Nam has provided hormonal implants, IUDs, female sterilization, and vasectomies through its public health system (NCPFC and ORC Macro, 2003). IUDs, in particular, have been a permanent feature, making Viet Nam the only country in South-East Asia, on par with a handful of countries in the world, where IUDs are the most used contraceptive method.

In both countries, while the public sector has remained centred on LAPMs, contraceptive choices are expanding in the private sector. This is especially true of Indonesia where provisions for contraception have been privatized in the last decade and where, in 2007, 69 per cent of married women purchased contraceptives from private sources, while in Viet Nam, 86 per cent of acceptors are still served by the public sector (BPS and Macro International, 2007, p. 86; NCPFC and ORC Macro, 2003). Private practices and clinics in Indonesia have opted for a "cafeteria-contraceptive basket" approach selling to their clients more diverse and branded products. Still providers' biases remain, this time leaning towards hormonal injections, recurrent shots being perceived as "an ideal way to lock in a flow of payments" (Hull and Mosley 2008, p. 18-19). In Viet Nam, the source of supply varies depending on the type of method used with an increasing number of private pharmacies and outlets opting for pills, three-month injectables and condoms. Their sales are expected to grow as the market liberalizes further, in line with the 2006-2015 national strategy on contraceptive commodity security developed with the support of UNFPA and other international agencies, which advocates for more involvement of non-governmental sectors and social marketing to encourage greater diversity in contraceptive supplies, at least for those who can afford it. Moreover, the Governments of Viet Nam and Indonesia have preferred to defer distribution of condoms for STIs and HIV prevention to international and local NGOs.

In view of the large consumer base, Governments in both countries favour local production of contraceptive commodities. Indonesia has the capacity to produce all modern contraceptive methods, thus

ensuring a sustainable supply at low cost. Ten contraceptive producing factories operating in the country have a reputation for being reliable manufacturers (Armand 2006, p. 22), although not all meet international export standards as defined in the World Health Organization Good Manufacturing Practices and the Pharmaceutical Inspection Cooperation Scheme. With the major donor USAID completing its phase out in 2006, Indonesia has become self-reliant in the funding of contraceptive supplies for its now much-reduced public sector (Hull and Mosley, 2008). External support is still received for use of condoms for STIs/HIV prevention among sex-workers and other groups considered at risk under the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). Viet Nam has supported local production of contraceptives and import from other Asian countries since the 1990s (Feuerstein 1994), but, due to economic constraints, has not yet achieved self-reliance, and in 2006 was among the 10 top recipients of donor support (UNFPA, 2008, p. 22). Other donors, especially of contraceptive pills and condoms, include the European Union (EU) and bilateral agencies such as German's Gesellschaft für Technische Zusammenarbeit (GTZ) and the United Kingdom's Department for International Development (DFID).

Resource-poor countries

Irrespective of their views on family planning and STI/HIV prevention, the poorest countries of South-East Asia simply do not have the means to address the great SRH needs of their people. Cambodia, the Lao People's Democratic Republic, Myanmar and Timor-Leste are largely dependent on foreign aid, including for their contraceptive delivery systems. Although these systems vary, management of family planning activities at the national and local levels is particularly weak, funding is segmented, personnel and equipment are insufficient; and the processes of clearing, storing and delivering commodities for the public sector inefficient. Stock-outs are not uncommon and facilities, especially in rural areas, are scarce and lack basic requirements such as clean water, waste disposal and energy systems. Product safety and efficacy are a concern as fake and outdated smuggled products commonly circulate to fill the void. As a result, contraceptive services are not only limited, but also of poor quality, with method failure a common problem.

In Cambodia and Myanmar large private sectors compensate somewhat for the failing public system, providing contraceptive services at a cost throughout the country. In Cambodia, the public sector is the main provider of female sterilization and injectables, while the commercial private sector is the lead provider of IUDs and social marketing accounts for a majority of condoms and pills (UNFPA, 2007; 2007a). In Myanmar,

the private sector is composed mostly of providers' private practices. NGOs and social marketing outlets sell male and female condoms, pills as well as one- and three-month injectables, IUDs and emergency contraception (UNFPA, 2002). In the other two countries, the public sector is the major provider of contraceptive services, offering in Lao People's Democratic Republic two types of combined pills, a mini-pill, three-month injectables, IUDs, male condoms and female sterilization, and in Timor-Leste mainly injectables, but also IUDs, pills and implants are offered (UNFPA, 2001; 2007b; 2008).

Irrespective of the public-private mix, the very poor are dependent on public services, when they can access and afford them, a cheaper option in comparison with the private sector. Even if the very poor get free services or a cost exemption, the targeting and waiver system is inefficient and providers often charge fees in order to compensate for budget shortcomings, whereas subsidies and other pro-poor financial schemes, when available, are fragmented and insufficient (Sciortino, 2008).

International aid is crucial to enhance contraceptive security. In Cambodia, foreign donors finance most contraceptives and have formed a Commodity Security Working Group (CSWG) to project and address future contraceptive supply needs. The German government-owned development bank Kreditanstalt für Wiederaufbau (KfW) has been the major donor since 1993 and provided contraceptive supplies for public health services and social marketing until 2011. In addition, USAID and UNFPA provide pills and injectables and GFATM condoms for social marketing efforts (UNFPA, 2007; 2007a). There are concerns that the purchase of Western-manufactured brands, such as those procured with KfW funding, is unsustainable because, as is shown in table 5, the gap in resources will increase once donors gradually phase out, and it is suggested that donor agencies rather procure cheaper reliable generic contraceptives (Hall and Chhuong, 2006:4; UNFPA, 2007). More sustainable strategies are also needed for Lao People's Democratic Republic and Timor-Leste, where contraceptive services are fully dependent on international aid. In both countries, UNFPA funds most supplies and GFAMT and USAID support social marketing of condoms among groups considered at risk (UNFPA, 2008; USAID, 2008a). In Myanmar, despite economic sanctions, support has been provided on humanitarian grounds, with DFID and UNFPA as the primary source of generic commodities (condoms, pills, injectables and IUDs) for the public sector, and bilateral donors and foundations investing in social marketing and outreach work of NGOs (UNFPA 2002; PSI 2010). Still, foreign aid remains insufficient to cover the total unmet need for contraception and for STI /HIV prevention.

Table 5. Projected resources needs, committed resources and gaps 2007-2015, Cambodia (in $100,000)

Year	Total projected resources need	Resources need in 6-month buffer stock	Expected committed resources	Gap (unmet need)
2007	2 270	3 405	3 258	147
2008	2 520	3 780	3 488	292
2009	2 780	4 170	3 488	682
2010	3 050	4 575	1 168	3 407
2011	3 330	4 995	1 168	3 827
2012	3 630	5 445	150	5 295
2013	3 930	5 895	200	5 695
2014	4 240	6 360	200	6 160
2015	4 570	6 855	200	6 655

Source: UNFPA 2007a:11.

Scarcity of means is compounded by a political inclination to ignore or discourage contraception, with governments preferring to invest their few resources into other development areas. In Timor-Leste, modern contraceptives are not well-accepted by the Catholic Church (Hayes 2010), and there is a reluctance to promote safe sex and condom use among the general population.

A special case

Compared to the other countries in the region, Thailand stands out for its long-standing commitment to contraceptive security for both family planning and STI/HIV prevention. Since the beginning of family planning efforts in the late 1960s, Thailand took a unique path in controlling population growth by: integrating family planning activities into the health system; using auxiliary personnel in the provision of contraceptives; adopting a cafeteria approach inclusive of short-term methods and methods for men such as condoms and non-scalpel vasectomies; promoting local production of contraceptives; and engaging NGOs in mobilizing communities and integrating family planning into community development (Rosenfield, & Min, 2007; WHO, 2003).

Today, as shown in table 2, Thailand has the highest CPR in South-East Asia thanks to an almost exclusive use of modern contraceptive methods, foremost contraceptive pills, followed by female sterilization and injectables. Public contraceptive services are highly accessible to adult women and men and there are plans to provide services for married and unmarried male and female youth, to further expand coverage and specifically reduce adolescent pregnancy. Contraceptive methods are

provided "conveniently, largely free of charge, without incentives, and with controls for quality and safety" (WHO, 2003). Family planning is part of the preventive and promotive SRH services covered under Thailand's universal insurance scheme, as are condoms for STI/HIV prevention, while abortion in cases of rape and risk to maternal health is covered under the curative services package (Teerawattananon and Tangcharoensathien, 2004). Many contraceptive brands, including emergency contraceptives, are also on sale at affordable prices at pharmacies, and other outlets.

Initially with foreign support, Thailand's family planning efforts have become self-sufficient. Contraceptive commodities are produced in locally developed formulation and brands for internal use and export. Thailand is a supplier to UNFPA, various developing countries in Africa and its neighbours and often provides technical assistance internationally in the different aspects of manufacturing, quality control, storage, marketing, and distribution of contraceptive commodities (Hall, 2006).

Towards a regional advocacy agenda

In South-East Asia, governments remain challenged to fulfil the many urgent reproductive health needs of their populations. Great strides have been made toward achieving contraceptive security, but they are still not sufficient to guarantee universal access to a wide range of quality contraceptives for family planning and disease prevention, nor are they adequate to meet the expected increase in demand as the regional population continues to grow and a large number of young people enter reproductive age. While tailored strategies should take into account the specific contraceptive landscapes of each country, there are common issues that should be identified as central to a regional advocacy and intervention agenda, as they present the greatest challenge in achieving contraceptive security, namely the realization of an enabling policy environment and the promotion of greater equity across and within countries.

More particularly, efforts at the regional and national levels should address the ideological opposition to modern contraceptive services and commodities, and to people's SRH choices grounded in religious as well as demographic objections, as it disables contraceptive security and precludes the gathering of information, accurate planning and effective logistics and delivery systems. For South-East Asia as a whole, the exclusive focus of contraceptive services on married couples and the sensitivities around condom use and sexuality should be questioned. In particular, governments should recognize that the unmet need for contraceptive supplies exists not only in marriage, but also among the growing number of single women and girls. What Hull and Mosley (2008, p. 8) wrote about Indonesia, actually applies to many countries in South-East Asia:

> "national family planning program[s] explicitly excludes unmarried women (and men), therefore these women receive little attention… This policy may have been rational 40 years ago when the family planning program began and most women, with no opportunity for education, married and began childbearing early. But with development and urbanization, times have changed dramatically, as has the demographic picture and sexual behaviour of unmarried women, yet the old policies remain."

Much still needs to be done to emphasize the male role in contraception and HIV prevention, assuring promotion of male contraception methods (vasectomies and condoms) in SRH services. At the same time, female condoms should be promoted more vigorously so that girls and women, in regular as well as non-regular relationships, could control the means of protection from HIV and unwanted pregnancies.

In view of the ongoing demographic transition in the region, it is further important to emphasize that fertility decline does not justify a neglect of contraceptive services that should rather transform into more comprehensive SRH services that integrate family planning and HIV/STIs prevention and include linkages with safe abortion. Integration, demonstrated by Thailand, should be seen as a strategy to optimize resources, enhance universal access to contraceptive supplies and improve SRH outcomes. To achieve the desired integration, barriers that keep family planning and HIV prevention programmes apart ought to be addressed, including de-stigmatizing sexual behaviour and eliminating the common practice of differential branding and packaging of condoms depending on their ascribed purpose.

Parallel to efforts directed at fostering an enabling environment, efforts should be directed at promoting equity concerns across and within countries. Cambodia, the Lao People's Democratic Republic, Myanmar and Timor-Leste deserve continued attention by the foreign aid community in view of their poorer SRH indicators and lack of resources. However, strategies should be directed at diversifying funding so as to reduce dependency from major sources and allow more negotiating power in deciding procurement parameters, including advocating for contributions from the wealthier countries in the region, especially Singapore. Mechanisms could also be developed for joint regional procurement and storage of contraceptive commodities, preferably less expensive generic products of good quality, maximizing the opportunities that may be derived from the fact that three countries in South-East Asia – Malaysia, Indonesia and Thailand – are significant producers of contraceptive supplies, and that South-East Asia is close to both India and China, two of the largest producers of cheaper goods.

An equitable perspective is also crucial to avert the creation of an underclass of people excluded from essential health commodities and services or having access to services of lesser quality, which is currently the case. An evidence-based discussion should be promoted about the distributional impact of privatization and decentralization efforts on contraceptive supplies, access to services, costs and standards of care and SRH outcomes for diverse groups in society. While, as discussed before, the involvement of the private sector, and especially social marketing organizations, appear to compensate for the weaknesses of the public sector and expand the reach of services and access to commodities and contraceptive choices, unregulated privatization may not fulfil the universality and equity principles implicit in the concept of contraceptive security. Greater government stewardship is needed in determining the "right" mix of private (both commercial and not-for-profit) and public services and in regulating the market in a way that endorses equitable services. As the majority of the poor rely on the public sector for their health needs, it will be crucial to ensure that public services, especially when decentralized, are of a comparable standard to private services to avoid inefficiencies of creeping market segmentation.

Moreover, the access to and affordability of contraceptive supplies and services should be enhanced. More efforts should be directed at expanding the outreach of activities to rural areas and other less-served areas, addressing supply and demand side barriers to reduce socio-economic disparities in contraceptive security. Payment systems, especially in the public sector, also require reform. The experience of Thailand shows that a universal coverage system contributes to the affordability as well as the wide availability of contraceptives in an effective manner. Countries with a similar level of economic development as Thailand should work towards establishing national insurance schemes comprising a reproductive health package that ensures that contraceptive commodities essential to the population's welfare and the development of the country are covered. After all, contraceptive security in its broad sense of availability of a wide range of quality contraceptives is meant for all and not only for the advantaged groups of society.

Endnotes

i This article is based on a synthesis report prepared by the author to sustain advocacy efforts of the Asia Pacific Alliance (APA), which was published by APA in collaboration with the Institute for Population and Social Research, Mahidol University in 2010 with the title "Achieving Contraceptive Security and Meeting Reproductive Health Needs in Southeast Asia". The views presented in this article are those of the author and do not reflect those of the organizations she is or has been associated with.

ii In the following, "contraceptive supplies/commodities" as a category will include condoms for both contraception and HIV prevention unless specifically distinguished for clarity purposes.

iii South-East Asia is composed of Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam.

iv Please note that the figures presented are not always consistent as different sources use different calculations and criteria. The same source may also have inconsistencies as it derives figures from disparate studies. Also when comparisons of countries are made, numbers are only approximately comparable due to variation in the timing of the surveys and in the details of the questions.

v For this reason Brunei Darussalam is barely discussed.

References

Armand, F. (2006). Improving hormonal contraceptive supply: the potential contribution of manufacturers of generic and biosimilar drugs. Bethesda, MD: Private Sector Partnerships-One Project, Abt Associates Inc.

Asian Development Bank (2010). *Key Indicators for Asia and the Pacific 2010*, 4th ed. Manila: ADB.

BPS and Macro International (2008) Indonesia Demographic and Health Survey 2007. Statistics Indonesia (Badan Pusat Statistik-BPS)

Bristow, J. (2010). Will the global recession lead to a 'baby bust'? Available from www.abortionreview.org/index.php/site/article/509/accessed 4 October 2010.

Cambodia, Ministry of Health, KfW Development Bank and Domrei Research and Consulting (2005). Family planning survey: contraception among married women of reproductive age in Cambodia. Final report.

Center for Reproductive Rights, and Asian-Pacific Resource and Research Centre for Women (2005). *Women of the World: Laws and Policies Affecting their Reproductive Lives: East and South-east Asia*. New York: CRR and ARROW.

Chaya, Nada (2006). Cambodia and HIV: winning round two in a preventive fight. *Research Commentary*, vol. 1, No. 7.

Cleland, J., S. Bernstein, A Ezeh, A. Faundes, A. Glasier and J. Innis (2006). Family planning: The unfinished agenda. *Lancet*, vol. 368, No. 9549, pp. 1810-1827.

Connell, P., C. Cisek, and J. Robertson (2005). Support to contraceptive social marketing in the Philippines: performance and prospects. Final Report to USAID Philippines. Bethesda, MD: Private Sector Partnerships-One Project, Abt Associates Inc.

Do Thi Hong Nga (2008). More to demand: abortion in Vietnam. Available from www.isiswomen.org/index.php?option=com_content&view=article&id=1137:more-to-demand-abortion-in-vietnam&catid=143:abortion-battles, accessed 15 June 2011.

Feuerstein, M.T. (1994) Family planning in Viet Nam: a vigorous approach. *World Health Statistics Quarterly*, vol. 47, No. 1, pp. 36-39.

Finkle, Clea (2003). Ensuring contraceptive supply security. *Outlook*, vol. 20, No. 3 (July).

Government of Vietnam, National Committee for Population, Family and Children (2003). *Vietnam: Demographic and Health Survey 2002*. Hanoi: General Statistical Office. Available from http://measuredhs.com/pubs/pdf/FR139/FR139.pdf.

Guttmacher Institute (2009). Meeting women's contraceptive needs in the Philippines. *In Brief*, No. 1. Available from www.guttmacher.org/pubs/2009/04/15/IB_MWCNP.pdf.

Hall, P. (2006). Outcome report of roundtable on RH commodity supply among developing countries. Powerpoint Presentation at International Workshop for Senior Officials on Capacity Building in Programme Management in Population and Development, Beijing, 7-12 November.

Hall, P., and C. Chhuong (2006). Reproductive health commodity security country case study: Cambodia. London: DFID Health Resource Centre.

Harvard Gazette (2007). Poor fall behind in birth control; Contraception gap widens in richer countries. Available from http://news.harvard.edu/gazette/story/2007/02/poor-fall-behind-in-birth-control/, accessed 18 June 2011.

Hayes, A.C. (2010). The status of family planning and reproductive health in Timor-Leste. Draft report for the UNFPA-ICOMP Regional Consultation Family Planning in Asia and the Pacific Addressing the Challenges, Bangkok, 8-10 December.

Hirschman, C. (2001). Fertility transition in Southeast Asia. In *International Encyclopedia of the Social and Behavioral Sciences*, N. J. Smelser and P. B. Baltes, eds., vol. 8, pp. 5597-5602. Oxford: Elsevier.

Hong, Khuat Thu (2003). Adolescent reproductive health in Viet Nam: status, issues, policies, programs, and issues. Washington, D.C.: POLICY. Available from www.policyproject.com/pubs/countryreports/ARH_Vietnam.pdf.

Howe, W. (2005). Global trends in the condom industry. Unpublished paper.

Hudiono, E. S. (2006). Indonesia: challenges of synergising HIV/ AIDS & sexual and reproductive health and rights. *Arrows for Change*, vol. 12, No. 1, pp. 4-5.

Hull, T. and H. Mosley (2008). Revitalization of family planning in Indonesia. Draft consultancy report. Jakarta: BKKBN.

International Planned Parenthood Federation (2008). *Contraception at a Crossroad*. London: IPPF.

Jones, G. (2005). The "Flight from Marriage" in South-East and East Asia. *Journal of Comparative Family Studies*, vol. 36, No. 1, pp. 93-119.

Medical News Today, Malaysia health ministry cannot promote condom use to prevent spread of HIV, official says (2007). 24 May. Available from www.medicalnewstoday.com/releases/71811.php, accessed 4 May 2010.

Nai Peng Tey (2007). The family planning program in peninsular Malaysia. In *The Global Family Planning Revolution: Three Decades of Population Policies and Programs*, W. C. Robinson and J. A. Ross, eds. Washington, D.C.: World Bank, pp.257-276.

Population Reference Bureau (2008). World Population Data Sheet 2008. Washington, D.C.: PRB. Available from www.prb.org/pdf08/08WPDS_Eng.pdf.

Population Services International (2004). Declining HIV gives hope in Cambodia: targeted condom promotion credited for fall in prevalence. *PSI Profile*, April. Available from www.psi.org/sites/default/files/publication_files/cambodia2.pdf.

_____ (2010). Myanmar. Available from www.psi.org/myanmar, accessed 4 July 2011.

Program for Appropriate Technologies in Health, and United Nations Population Fund (2006). *Meeting the Need: Strengthening Family Planning Programs*. Seattle: PATH/UNFPA. Available from www.path.org/publications/files/RH_UNFPA_fp.pdf.

Rauhala, Emily (2008). The Philippines' birth control battle. *Time World*, 6 June. Available from www.time.com/time/world/article/0,8599,1812250,00.html, accessed 4 July 2011.

Ross, John, John Stover, and Demi Adelaja (2005). *Profiles for Family Planning and Reproductive Health Programs: 116 Countries*. 2nd ed. Glastonbury, CT: Futures Group. Available from www.policyproject.com/pubs/generalreport/Profiles116FP2ed.pdf.

Rosell-Ubial Paulyne, J.B. (2008). The state of the Philippine health care system. *Philippine Journal of Microbiology and Infectious Diseases*, vol. 37, No. 2, (July-December).

Rosenfield, A. G., and C. J. Min (2007). The emergence of Thailand's family planning program. In *The Global Family Planning Revolution: Three Decades of Population Policies and Programs*, W. C. Robinson and J. A. Ross, Eds. Washington, D.C.: World Bank, pp. 221-234.

Sciortino, R. (2008). Health governance and equity in the Greater Mekong Sub-Region. Report to IDRC.

_____ (2010). Achieving contraceptive security and meeting reproductive health needs in Southeast Asia. Bangkok: Asia-Pacific Alliance and Institute of Population and Social Research, Mahidol University.

Sedgh G., and H. Ball (2008). Abortion in Indonesia. Guttmacher Institute, *In Brief*, No. 2. Available from www.guttmacher.org/pubs/2008/10/15/IB_Abortion_Indonesia.pdf.

Smyth, I. (1991). A critical look at the Indonesian government's policy for women. Unpublished paper.

Sonfield, A. (2006). Working to eliminate the world's unmet need for contraception. *Guttmacher Policy Review*, vol. 9, No. 1, pp. 10–13.

Statistics Indonesia (2008). *Indonesia Demographic and Health Survey 2007*, Jakarta. Available from www.motorcycleoutreach.org/FR218_April_09_2009.pdf.

Teerawattananon, Y., and V. Tangcharoensathien (2004). Designing a reproductive health services package in the universal health insurance scheme in Thailand: match and mismatch of need, demand and supply. *Health Policy and Planning*, vol. 19, Suppl. 1, pp. i31-i39.

Teerawichitchainan, S. (2008). Viet Nam's last frontiers of fertility decline: ethnic minorities and abortion. Unpublished paper.

United Nations Population Fund (2001). Contraceptive requirements logistic management and information systems for the Lao PDR (2001–2010). Report of mission 11–30 March 2001.

_____ (2002). Technical assistance visit to Myanmar. Unpublished Report.

_____ (2006). *Maternal and Neonatal Health in East and South-East Asia*. Bangkok: UNFPA, CST. Available from www.unfpa.org/upload/lib_pub_file/613_filename_bkmaternal.pdf.

_____ (2007). National Family Planning Commodity Security (FPCS): strategy and action plans and forecasting and costings (2007–2015). Draft report.

_____ (2007a). Forecasting and costing of family planning commodities in Cambodia: 2007–2015. Draft report.

_____ (2007b). Reproductive health commodity security in the Demographic Republic of Timor-Leste. Final draft report.

_____ (2008). Donor support for contraceptives and condoms for STI/HIV prevention 2007. New York: UNFPA. Available from www.unfpa.org/webdav/site/global/shared/documents/publications/2008/updated_donor_support_report.pdf.

_____ (2009). *Viet Nam Population 2008*. Hanoi: UNFPA. Available from http://vietnam.unfpa.org/webdav/site/vietnam/shared/UNFPA_2008 Viet Nam Population_ENG_FINAL.pdf.

United Nations Programme on HIV/AIDS (2008). Report on the global AIDS epidemic 2008. Geneva: UNAIDS.

United Nations Programme on HIV/AIDS, and World Health Organization (2008). Asia: AIDS Epidemic Update Regional Summary 2007. Geneva: UNAIDS/WHO.

United States Agency for International Development (2006). No product, no program: financing, procurement and distribution of reproductive health supplies. Family planning, issue brief, August. Available from from www.usaid.gov/our_work/global_health/pop/news/issue_briefs/supplies.html, accessed 11 November 2009.

_____ (2008). Health profile Timor-Leste: HIV-AIDS. Dili: USAID/Timor-Leste.

Vijerasa, Ramona (2009). Female condom access, use low in Asia-Pacific. Available from www.rhrealitycheck.org/blog/2009/02/16/female-condom-access-use-low-asiapacific, accessed 5 July 2011.

Warriner, Ina K., and Iqbal H. Shah, eds. (2006). *Preventing Unsafe Abortion and its Consequences: Priorities for Research and Action*. New York: Guttmacher Institute. Available from www.guttmacher.org/pubs/2006/07/10/PreventingUnsafeAbortion.pdf.

Wee, S., and others (2004). Determinants of inconsistent condom use with female sex workers among men attending the STD clinic in Singapore. *Sexually Transmitted Infections*, vol. 80, No. 4, pp. 310–314.

World Health Organization (2003). *Thailand and Family Planning: An Overview*. New Delhi: WHO, Regional Office for South-East Asia.

_____ (2007). *Global Strategy for the Prevention and Control of Sexually Transmitted Infections: 2006–2015: Breaking the Chain of Transmission*. Geneva: WHO.

Yap Mui Teng (2007). Singapore: population policies and programs. In *The Global Family Planning Revolution: Three Decades of Population Policies and Programs*, W. C. Robinson and J. A. Ross, eds. Washington, D.C.: World Bank, pp. 201-220.

Page 28 Blank
(no page number)

Social Impact of International Migration and Remittances in Central Asia

The dissolution of the former Soviet Union and the transition from a centrally planned to a market-based economy within the subregion of Central Asia has been accompanied by population movements which were unprecedented in modern history. While lack of reliable statistical data makes it difficult to assess the scope and scale of such movements in Central Asia, migration is predicted to rise substantially due to declining working-age populations in some countries, and high rates of population growth accompanied by relative economic disadvantage in others. This article attempts to explore key social issues emerging in relation to labor migration and remittances, and examines the impact of migration on communities in both countries of origin and countries of destination. It concludes with key policy recommendations, which include: instigating constructive regional dialogue on migration; focusing on gender-sensitive issues; undertaking policy measures to effectively address the needs of migrants; and creating better social protection and services for migrants and their families.

Dono Abdurazakova*

Introduction

The *Human Development Report 2009: Overcoming Barriers: Human Mobility and Development*, published by the United Nations Development Programme (UNDP), indicates that both countries of origin and host countries have reaped benefits from the sharp rise in migration flows in recent years. The economies of countries of origin as well as the

* Independent Consultant. Email: dono_abdurazak@yahoo.com

local communities where migrants originated have gained from financial remittances. In addition, social remittances have improved the quality of life in local communities. When migrants move under safe conditions, social benefits are typically found in better health and education prospects. The benefits are equally strong for destination communities. Contrary to popular opinion, migrants do not crowd out local residents in the job market, but instead, tend to improve employment rates and stimulate investment in new businesses and initiatives. In Europe, migrants also help narrow gaps created through demographic transition resulting from ageing populations (UNDP, 2009b).

The dissolution of the Union of Soviet Socialist Republics (USSR) and the transition from centrally planned to market-based economies within the subregion was accompanied by unprecedented population movements, both external, exiting from the former Soviet Union as well as internal, moving within the subregion. Migration flows were a result of rising unemployment, growing poverty, "transparent" borders, political instability and military conflicts. Lack of reliable statistical data makes it difficult to assess the scope and scale of population movement, but at least two waves of migration occurred within the subregion during the past three decades.

The first wave took place roughly between the mid-1980s and mid-1990s, and included ethnic and religious groups taking advantage of the newly opened borders to hold family and community reunions, with internally displaced persons (IDPs) being resettled and refugees fleeing from local conflicts in the wake of the dissolution of the Soviet Union.

The second wave represented labour migration, which is the base for this study. Labour migration started in Central Asia in the late 1990s, with a transition to market economies and structural reforms initiated within the subregion. As there is no universally accepted definition of labour migration, for the purposes of this study we refer to it as the cross-border movement of people for the purpose of employment. As noted above, labour migration became widespread over the past decade, especially within newly independent States and was particularly driven by economic factors. In fact, in the years leading up to 2011, this type of migration started to play an important role in the countries of origin as a significant livelihood strategy. Remittances transferred by migrants not only contributed to individual households, but also had a considerable impact on the economies as a whole, particularly those of Armenia, Kyrgyzstan, Tajikistan and Uzbekistan.

This study is based mostly on a review of existing documents and on both primary and secondary data sources, including those in Russian language. The written materials, reviewed by the author, were supplemented by interviews with migrants from rural areas of Uzbekistan.

These interviews, while being not necessarily representative of all the countries referred to in this article, still serve as a source of first-hand experience. Despite the fact that labour migration is a relatively new phenomenon in the subregion, the subject itself and its related issues, such as forced labour and human trafficking, have generated considerable research in recent years. However, there are still many gaps and challenges in this area, especially with regard to data, which are often limited and not easily accessible. In addition to issues related to data quality, some substantive areas of economic migration require greater clarity and explanation. While there is some level of consensus about both the positive and negative aspects of labour migration, questions remain over which impact is stronger and what can be done to mitigate negative impact. Consequently, the article attempts to explore key social issues emerging in relation to labour migration and remittances, and to provide an overview of its impact on communities in the subregion. However, given the lack of sufficient data, this paper cannot claim to be fully comprehensive on the subject.

Current context

All members of the Commonwealth of Independent States (CIS) are affected by migration, as countries of origin, destination or transit. For the most part, countries in Central Asia, Ukraine and Moldova are countries of origin for migrants heading to the Russian Federation, while Kazakhstan has recently emerged as a new destination point. Besides the Russian Federation and Kazakhstan, workers from Central Asia also migrate to other countries, but to a lesser extent. In 2009, the Russian Federation ranked among the top remittance sending countries in the world, second only to the United States of America (World Bank 2011b).

Key factors leading to labour migration in the region are population surplus related to opportunities, especially in rural areas, and the search for jobs and economic opportunity.

Demographic and social trends and conditions vary greatly across CIS. For example, Kyrgyzstan, Tajikistan and Uzbekistan have the fastest growing populations. According to the Ministry of Labour and Migration, the annual surplus of human resources in Kyrgyzstan is approximately 100,000 people and for the first nine months of 2010, it was 80,000 people (Kyrgyzstan, 2010). In Uzbekistan, according to the national statistical agency, the population reached 27,767,100, in 2009, increasing roughly by more than 400,000 people annually (Uzbekistan, 2011). Some experts are of the view that the numbers might be even higher considering that no census has been carried out in the country since 1989.

Table 1. Population in selected CIS countries, 1980-2009

Country	1980	1990	2000	2009
Armenia	3 057 721	3 544 700	3 081 000	3 243 729
Azerbaijan	6 160 500	7 175 200	8 048 600	8 947 314
Belarus	9 627 311	10 189 348	10 004 958	9 576 045
Georgia	5 048 259	5 438 850	4 418 300	4 469 200
Kazakhstan	..	16 328 102	14 883 626	15 643 928
Kyrgyzstan	3 617 405	4 391 229	4 887 550	5 477 600
Moldova, Republic of	4 011 255	4 361 734	3 639 592	3 565 603
Russian Federation	138 126 583	147 662 055	145 559 208	141 909 244
Tajikistan	..	5 302 480	6 188 366	7 373 800
Turkmenistan	..	3 743 167	4 891 598	..
Ukraine	49 609 333	51 452 034	49 246 305	45 872 975
Uzbekistan	..	20 414 770	24 650 414	28 171 470

Source: UNECE Statistical Division Database, compiled from national and international (Eurostat, United Nations Statistics Division Demographic Yearbook, World Health Organization European health for all database and UNICEF TransMONEE) official sources; National Statistics of Georgia http://www.geostat.ge; National Statistical Committee of Kyrgyzstan http://www.stat.kg.

Table 2. Total fertility rate by country and year in selected CIS countries

Country	1980	1990	2000	2008
Armenia	2.3	2.6	1.3	1.4
Azerbaijan	3.3	2.8	2.0	2.3
Belarus	2.0	1.9	1.3	1.4
Georgia	2.3	2.2	1.5	1.7
Kazakhstan	2.9	2.8	1.8	2.7
Kyrgyzstan	4.1	3.6	2.4	2.8
Moldova, Republic of	2.4	2.4	1.3	1.3
Russian Federation	1.9	1.9	1.2	..
Tajikistan	5.7	5.1	3.5	..
Turkmenistan	4.9	3.5	2.9	..
Ukraine	2.1	1.8	1.1	1.5
Uzbekistan	..	4.1	2.6	2.6

Source: UNECE Statistical Division Database, compiled from national and international (Eurostat, United Nations Statistics Division Demographic Yearbook, World Health Organization European health for all database and UNICEF Trans-MONEE) official sources.

With the exception of the above-mentioned Central Asian countries, populations are declining in other countries in the subregion, owing to migration, particularly from the Caucasus and Moldova, falling birth rates and decreased life expectancy. Studies have indicated that the working-age population in the Russian Federation may drop by as much as 18 million (or 20 per cent) by 2030 from the current 90 million. Such a decline would adversely affect the socio-economic development of the country without considerable in-migration (Zayonchkovskaya, 2010).

Migration flows from Armenia peaked in the mid-1990s, and remained high until 2003 when the flows decreased and stabilized. According to independent analysts, the number of labour migrants has reached

Table 3. Life expectancy at birth and at age 65 by country, sex and year

			1980	1990	2000	2008
Armenia	At birth	Female	75.8	75.4	75.8	76.7
		Male	69.6	68.6	70.1	70.2
Azerbaijan	At birth	Female	72.2	74.8	75.1	76.3
		Male	64.5	67.0	68.6	71.1
Belarus	At birth	Female	75.7	75.6	74.7	76.5
		Male	65.9	66.3	63.4	64.7
Georgia	At birth	Female	..	76.6	74.9	79.0
		Male	..	69.0	67.5	69.3
Kazakhstan	At birth	Female	..	73.4	71.6	72.5
		Male	..	63.9	60.2	61.9
Kyrgyzstan	At birth	Female	70.1	73.0	72.0	..
		Male	61.2	64.4	63.8	64.6
Moldova	At birth	Female	68.8	72.0	71.4	73.3
		Male	62.4	65.0	64.0	65.5
Russian Federation	At birth	Female	73.0	74.4	72.4	..
		Male	61.4	63.8	59.2	..
Tajikistan	At birth	Female	..	72.6	70.3	74.8
		Male	..	67.1	66.1	69.7
Turkmenistan	At birth	Female	..	69.7	71.8	..
		Male	..	62.9	64.9	..
Ukraine	At birth	Female	74.0	75.0	73.6	73.9
		Male	64.6	65.7	62.3	62.3
Uzbekistan	At birth	Female	70.4	72.4	73.2	..
		Male	63.6	66.1	68.4	..

Source: UNECE Statistical Division Database, compiled from national and international (WHO European health for all database, Eurostat and UNICEF TransMONEE) official sources.

147,000 in recent years, representing about 4.6 per cent of the 3.5 million population; ninety per cent of migrants have moved to other CIS countries, mainly to the Russian Federation. Other destination points have been countries of Europe and the United States of America. Altogether, between 1988 and 2003, estimates coming from different sources showed that the number of people who migrated from Armenia ranged from 800,000 to 1.5 million[1]. Among those migrants, over 82 per cent left in search of jobs, the rest migrated to reunite with their families (Panfilova, 2008).

Official sources estimate that from 400,000 to 500,000 Azerbaijan citizens reside in the Russian Federation[2]. However, independent analysts estimate that this figure might be as high as 2.5 million, with 700,000 of them having already received Russian citizenship. Estimates suggest that 10 to 15 per cent of the population of Azerbaijan is engaged in seasonal labour migration. It is worth noting, however, that strong economic growth during the past few years has been a pull factor for in-migration to Azerbaijan. The National Statistical Agency of Azerbaijan estimates that more than 11,000 foreigners are registered in the country. Many are specialists and representatives of various corporations, working primarily in the oil and construction sectors. It is likely that Azerbaijan will receive an even greater inflow of foreign labour in the future.

According to various sources, between 600,000 and 1,020,000 labour migrants from Kyrgyzstan, or 11 to 20 per cent of the total population, are working abroad. However, it is not clear if this number includes so called "shuttle traders" (people who shuttle back and forth to buy and sell goods). Of these migrants, up to 400,000 are estimated to be working in the Russian Federation and about 55,000 in Kazakhstan (Kyrgyzstan, 2010). The Russian Federation is thus a major destination for labour migrants from Kyrgyzstan, one of the countries in North and Central Asia that has an advanced institutional framework in the area of external migration and among the first in the subregion to adopt a law regulating labour migration (2006). One of the law's objectives is to prevent illegal migration. The export of human resources is seen as a means to reduce unemployment and tension within the country, and to alleviate poverty through remittances. But despite the efforts undertaken by the authorities of Kyrgyzstan to regulate labour migration and protect the rights of migrant workers, the majority of the country's migrants do not go through official channels.

Labour migration in Tajikistan has become an important instrument in social and economic development and accelerating the recovery since the civil war[3]. The percentage of migrants among the adult population is estimated to range between 21.8 and 54 per cent. Between 600,000 and nearly one million people are estimated to leave the country each year to work abroad. The actual figures are hard to estimate due to the

temporary or seasonal nature of this phenomenon. Most Tajik migrants are males and the majority (more than 93 per cent) migrate to the Russian Federation, while nearly 5 per cent migrate to Kazakhstan, Ukraine, Republic of Korea and the United States (ILO, 2010). Tajikistan has adopted progressive national legislation on migration and has ratified several related international legislative instruments. Specific policies directed at preventing irregular migration have been in place in the country since 1998, and institutions have been designated with the responsibility to implement these policies.[4] However, the majority of migrants continue to migrate through informal channels. A significant portion of migrants are low-skilled workers who have little or no awareness of their rights and a lack of Russian language skills.

In recent years, Uzbekistan has emerged as the leading country in labour migration in the subregion, surpassing Tajikistan. According to official sources, the number of migrants varies between 300,000 and 400,000, but independent analysts estimate the number to be much larger, possibly between 2 and 7 million people. As is the case with other sending countries in the subregion, many migrants are engaged in seasonal work and tend to bypass regular channels of migration, which exposes them to various risks and vulnerabilities at destination points. This practice also prevents an accurate census of migrants. The Republican Agency for Labour Migration under the Ministry of Labour is entrusted with the task of facilitating external labour migration, but the information on how many Uzbek citizens work officially abroad is not easily accessible, even for destinations such as the Republic of Korea and the United Arab Emirates with whom Uzbekistan has signed intergovernmental agreements. The bulk of workers from Uzbekistan migrate to the Russian Federation and Kazakhstan, countries where no visa is required for Uzbek citizens, and no language barriers exist.

Drivers of migration

As indicated in the above paragraphs, countries in North and Central Asia, with the exception of Kazakhstan and Turkmenistan, are mostly countries of origin for migrants. With the exception of Armenia, the population of these countries is expanding to an extent that they are unable to assimilate young adults entering the labour markets, and consequently out-migration has become an important tool in addressing socio-economic issues and reducing social tensions.

Contrary to countries of origin for migrants (Kyrgyzstan, Tajikistan and Uzbekistan), countries of destination in the subregion are facing negative population growth due to low fertility and high mortality rates. The latter trend mostly affects males, who, on average, die 10-12 years earlier than females in the Russian Federation, Ukraine, Belarus, Georgia and

Kazakhstan. Epidemiological trends, such as high incidence of HIV/AIDS and virulent strains of tuberculosis, high alcohol and drug consumption, high male suicide rates (for instance, in Ukraine, according to official statistics, 80 per cent of suicide victims are males) are among other factors that contribute to this phenomenon.

There are no reliable data sources which would allow a more or less accurate picture on the scale of labour migration in the Russian Federation. According to the Federal Migration Service (FMS) of Russia, there are five to seven million migrant workers in the Russian Federation (Romodanovsky, 2010). Migrants in the Russian Federation come from a wide variety of countries, including China, Viet Nam and Afghanistan, but the majority of migrants are citizens of Tajikistan (0.8 million), Ukraine (1.5 million) and Uzbekistan (1.2 million) (Romodanovsky, 2010). Independent estimates on the number of regular and irregular migrant workers from other CIS countries working in the Russian Federation vary considerably in the range of between 6 and 10 million. Of note, the Russian Federation has become one of the largest remittance-sending countries in the world, recording transfers worth $11.4 billion in 2006 (Marat, 2009).

The Russian Federation is not the sole country of destination in the region however. Estimates on the number of migrant workers in Kazakhstan also vary between 250,000 and 1 million. Precise figures are difficult to assess due to the high number of workers from bordering countries engaged in seasonal agricultural work. Most of the migrants come from Kyrgyzstan and Uzbekistan.

The main push factors for migration in the countries of Central Asia are economic: unemployment, low wages, lack of opportunities to be engaged in productive activities and poor business environments. In surveys conducted at the local level in different countries, migrants indicated that the main reasons prompting them to migrate were: (a) the desire to improve their overall economic well-being; (b) to earn money to pay for the basic household expenses (food, clothes, utilities, household appliances) and/or make home improvements; (c) to receive education and healthcare; and (d) to repay debts. Very few people migrate with a specific intention of earning money to invest in a future business (such as purchasing land, agricultural equipment, means of transportation or livestock), although savings and investments become an option for migrants with a longer duration of stay.

While the main reasons for migration are economic, the main destination countries for migrants are the Russian Federation and Kazakhstan, which could be explained, among other things, by an absence of visa requirements, no language barriers, familiar environment and cultural similarities because of a common past as well as extensive social networks across borders.

There are also pull factors that stimulate labour migration. Both the Russian Federation and Kazakhstan have been experiencing rapid economic growth since the second half of the 1990s, which resulted in higher salaries in these countries in comparison with the migrants' countries of origin. Robust economic growth has also boosted demand and opened the markets for a number of low-qualified, low-skill jobs.

Although the majority of migrants from CIS countries working in the Russian Federation and Kazakhstan leave their country legally, many end up residing and working at their place of destination as irregular migrants. According to FMS, five million foreign citizens reside in the Russian Federation, of which only one million are officially registered, while the remaining are irregular migrants from one of CIS countries working in the shadow economy (Romodanovsky, 2010). There are a number of reasons as to why migrants resort to irregular channels to work. For example, some experts point out to an unwillingness of employers to grant a regular status to migrants to avoid incurring additional costs. This means that employers may have a vested interest in keeping some of the people off their books. Other reasons may be related to the difficulties in migrants' registration procedures and in obtaining work permits to hold a specific job. Although Kazakhstan and the Russian Federation have a visa-free regime with Kyrgyzstan, Tajikistan and Uzbekistan, all CIS citizens have to register on arrival. Depending on bilateral agreements, temporary registration can be valid from 30 to 90 days. A temporary registration card does not grant the right to employment, and the process of getting work permits can be cumbersome.

The issue of legality of migration has profound effects on the status of migrants and their vulnerability to the risks related to forced labour, slavery and human trafficking as well as on remittance flows, their beneficiaries and the economy as a whole. Irregular migrants are in a more vulnerable position than regular migrants. They end up receiving lower wages and are exposed to intimidation and exploitation. Workers in the informal economy, who are predominately migrants, tend to be among the most vulnerable social groups in the subregion and are more likely to fall prey to forced labour and human trafficking. Research conducted in recent years indicates that the extent of forced labour and human trafficking within the CIS subregion is many times greater than that of trafficking of CIS citizens outside the subregion (Baskakova, Tiurukanova & Abdurazakova, 2005).

Migrant composition and experience

Profiles of migrants from Azerbaijan, Armenia, Kyrgyzstan, Tajikistan and Uzbekistan share some commonalities. For instance, in these countries, migration is undertaken predominantly by males. Research conducted in Tajikistan indicates that 93.5 per cent of the migrants are males (Khakimov & Mahmadbekhov, 2009).

Migrants from Central Asia are typically young and mostly come from rural areas. The same research conducted in Tajikistan found that more than half of labour migrants are aged between 18 and 35 years, with about 24 per cent under the age of 25 (Khakimov & Mahmadbekhov, 2009). The percentage of married males among labour migrants from Tajikistan is 68 per cent. Among female labour migrants, the number of divorcees is three times as high as that of male migrants (Khakimov & Mahmadbekhov, 2009).

Migration may also be seasonal. Labour migrants usually leave home during spring and return at the start of winter. This type of migration from Central Asia has a mainly temporary character, usually lasting for a period of several months. According to a recent study conducted in Tajikistan, up to 34 per cent of labour migrants are seasonal and temporary migrants who go abroad for several months a year (ILO, 2010).

Women are estimated to comprise between 10 and 30 per cent of the labour migrants in the subregion (International Crisis Group, 2010). Their share is relatively low due to traditions entrenched in the patriarchal societies of Central Asia, in which families typically offer less freedom to women. Most women's travel is reserved for short business trips, such as "shuttle trading". In general, females tend to work in the informal sector, and therefore are statistically undercounted. In addition, their involvement in activities such as sex work, which is considered criminal, further compounds this issue of underrepresentation in official statistics. If females migrate for longer periods, they usually take up low-skilled work in the domestic sector, such as housemaids and child and elderly care workers, or in the service industry as waitresses or shop assistants. Due to this gendered division of labour, females earn on average 20 to 25 per cent less than males (Abdullayev, 2008).

The educational level of labour migrants from the subregion is relatively low compared to the end of the 1980s-1990s when the "brain-drain" was more prevalent. Under the current profile, most labour migrants graduated from secondary (high) school, some had vocational training, but few had received higher (college) education. For instance, one study in Tajikistan shows that only 73 per cent of labour migrants have a high school education. Due to low educational levels, labour migrants mostly work in low-paid jobs that require minimum skills (up to 52 per cent). Approximately 16 per cent work in construction, in which only 7.3 per cent have higher professional qualifications. The remaining labour migrants are employed in the service sector (26 per cent) (Khakimov & Mahmadbekov, 2009).

Most migrants find work through informal networks of friends and relatives. In the construction business in the Russian Federation, more experienced migrants often assemble their crews with people brought from their home neighborhoods and villages and secure jobs are based

on migrants' previous contacts within their country of origin. Migrants in the Russian Federation work predominantly in construction, perform manual labour and work at enormous open air markets that can still be found in most cities. In Kazakhstan, each migrant community is known to occupy its niche with Uzbek migrants bringing their families to work in cotton fields and Kyrgyz migrants engaged mostly in retail trade or picking tobacco.

For an average monthly salary, migrants in Russia usually work 60 hours per week, or twenty hours more than the locals, and a third of migrants work 70 hours and more, or ten hours per day seven days a week (UNDP, 2008). There is also evidence of workers being exploited and ultimately not paid at all (Baskakova, Tiurukanova & Abdurazakova, 2005).

The informal or 'shadow' ('grey') economy in the Russian Federation is estimated at 20 to 25 per cent of GDP. The "shadow" share in sectors employing migrants (construction, trade, services) is much higher – up to 60 per cent of the sectoral GDP (UNDP, 2008). In CIS countries, 10 to 50 per cent of the labour force is employed in the informal economy (Baskakova, Tiurukanova & Abdurazakova, 2005). According to a survey undertaken by the International Organization for Migration (IOM) in the Russian Federation in 2006, about half of all legal migrants (those having registration, a work permit and other required documents) and nearly all illegal migrants are employed in the shadow sector of the economy where workers have little or no protection, employers pay no taxes, can hire and fire migrant workers at will, and often withhold migrants' salaries and keep their passports until the work is completed (UNDP, 2008).

This means that even full legal status neither guarantees a migrant a job in the official economy nor ensures that migrant's rights are adequately protected. Working in shadow and informal sectors, or even working in the formal sector of the economy still presents a social risk for migrants. The risk lies not only in the possibility that a migrant could be forcibly subjected to exploitation, but also in the likelihood that the worker would be pushed into accepting working conditions incompatible with basic human rights in order to survive or get ahead. This "consent to exploitation" plays a special role in models of risk behaviour. For example, migrants from Central Asian countries coming to the Russian Federation in search of jobs often face dire economic circumstances at home. The average per capita income in Tajikistan, for example, in 2000 was $0.2 per day, and although over the past decade it increased to $1.64. Tajikistan remains among the countries with the lowest per capita income in the world. The median monthly income of labour migrants from Tajikistan in 2007-2008 was around 400 US dollars, which was 12 times more than their incomes at home (Khakimov and Mahmadbekov, 2009).

Addressing social impact and embracing the poverty reduction potential of remittances

Over the past decade, both the Russian Federation and Kazakhstan have set up institutions at the state and public levels to deal with issues related to labour migration. While it is beyond the scope of this article to discuss country-level institutional details, it is worth noting some of the remarkable changes in this area that signal the emergence of civil society organizations. Examples of such institutions include, among others the Centre to Support Women (both in the Russian Federation and Kazakhstan) and other non-governmental organizations that aim to help migrant workers by providing legal and psychological consultations and medical and social services. Such organizations also monitor the working conditions of migrants in various parts of both countries. The Centre to Support Labour Migrants, along with four similar centres opened in Kazakhstan, was inaugurated in Almaty in 2008. The objective of these centres is to protect the rights and interests of migrants.

Similar organizations have emerged over recent years in other CIS countries, such as Kyrgyzstan and Tajikistan, with an objective to support labour migrants and get them prepared for working abroad. Thus, social migrant infrastructure development in the subregion is represented by state agencies in charge of migration and civil society organizations, including NGOs and international organizations functioning in both countries of origin and countries of destination.

Scale of remittances

For the purpose of this study remittances are understood as monetary and cash flows coming from abroad. Transfers, made by both regular and irregular migrants through formal and informal channels from the host country to the country of origin, are part of the overall remittances that also include business transfers, as well as financial help sent by citizens and residents of host countries to their relatives in the countries of origin.

Remittances serve as a vital source of income for migrants and their families, and play a significant role in sustaining national and local economies of countries with net out-migration, especially with regard to poverty reduction and development. As an important source of external financial flows for the sending economies, remittances increase investment in human and physical capital. They also represent, at least in theory, an engine for growth in the receiving country, stimulating investment, modernization and the restructuring of the economy.

In the CIS economies, financial flows are difficult to monitor, owing to prevailing informal employment. However, evidence suggests that in 2011 there had been a remarkable 11 per cent expansion in the volume of remittances sent home by labour migrants from Russia to Central Asia after a significant slowdown in 2008 due to the global financial crisis (World Bank, 2011).

The economies of Armenia, Kyrgyzstan, Tajikistan and other major countries of origin for migrants are based on financial remittances, or largely depend on them. The total amount of remittances for Armenia grew 23 per cent per annum during 2000-2004, and reached 10 per cent of GDP in 2004. Some independent researchers, especially those that take into account the estimated sums transferred by seasonal workers and through other sources, believe that the real amount of remittances should be at least three times higher than the figures cited in the official reports, or around $1 billion, representing almost 33 per cent of GDP (Roberts and others, 2004). According to the World Bank's latest estimates, Tajikistan (31% of GDP, 2010) is leading the current global list of top remittance recipient developing countries in relation to GDP, with Kyrgyzstan (21% of GDP, 2010) also being in the group of top ten remittance recipient developing countries (World Bank, 2011).

Although specific data on remittance flows are not available for Uzbekistan, only the accounting for the period 2002-2006, the annual influx of official transfers to the country increased five times, and reached, in 2006, almost $1.4 billion or 8.2 per cent of the Gross National Product (GNP) (Centre for Economic Research, 2007). At the same time, outgoing monetary transfers from Uzbekistan did not grow as fast, and increased for the same period only 2.6 times, reporting by the end of 2006 almost $226.7 million, with the balance gap increasing from 2.6 million in 2002 to 6 million in 2006 (Centre for Economic Research, 2007).

As shown in table 4, remittances to Armenia, Azerbaijan and Kyrgyzstan grew at a rapid rate between 2006 and 2008, before declining abruptly in 2009 as a result of the global financial crisis, which severely hit the Russian Federation. However, according to the World Bank's latest *Migration and Remittances Factbook 2011* estimates based on data compiled from various sources, external financing flows have since then demonstrated a tendency to increase. According to data from the Central Bank of Russia, in the second quarter of 2011, residents and non-residents transferred almost 1,069 million US dollars to Uzbekistan, compared with $2,858 million transferred in 2010 (see Table 5). Even though the figure does not cover all transfers, especially those made through informal channels, it makes Uzbekistan a leading CIS receiver of monetary transfers from the Russian Federation.

Table 4. Remittances by country and by year

Country	Remittances					
	As a share of GDP(2010)	2006 ($) (million)	2008 ($) (million)	2009 ($) (million)	2010 ($) (million)	2011e.
Armenia	8.8 per cent	658	1 062 000	769	996	1 147 000
Azerbaijan	2.5 per cent	813	1 554 000	1 274 000	1 432 000	1 823 000
Kyrgyzstan	20.8 per cent	481	1 200 000	882	1 275 000	1 500 000
Tajikistan	31.0 per cent	1 019 000	2 544 000	1 748 000	2 254 000	2 680 000
Uzbekistan	..	..	..	..	..	..

Source: The World Bank (2011).

Table 5. Remittances from the Russian Federation in 2010

Country	Remittances (million)	Average amount for one transaction (in USD)
Armenia	1 108	647
Azerbaijan	881	677
Belarus	212	362
Kazakhstan	308	634
Kyrgyzstan	1 128	371
Moldova	862	525
Tajikistan	2 229	384
Turkmenistan	35	545
Ukraine	2,201	576
Uzbekistan	2 858	581
Total amount transferred to the CIS from the Russian Federation	11,823,000	
China	3,672,000	9, 852

Source: The Central Bank of Russia, www.cbr.ru [Accessed 4 December 2011]

The potential of remittances for poverty alleviation

Remittances provide a flexible, responsive and well-targeted support mechanism for the households of North and Central Asia. The situation in Tajikistan serves as an example of this. According to the latest study conducted by ILO, more than 80 per cent of Tajik families are the recipients of regular remittances from their family members working abroad. For more than 60 per cent of these families, remittances represent more than 50 per cent of their income; to 31 per cent of families, remittances make 100 per cent of their income, and for 35 per cent – less than 50 per

cent. Thus, the number of families heavily dependant on remittance flow is nearly twice as large as the number of families that only partially depend on remittance flows (ILO, 2010). In Armenia, remittances benefit nearly 40 percent of its population and represent about two-thirds of all income earned in the household (Orozco, 2008).

Most remittances are transferred in cash using both formal and informal channels. Statistical authorities do not regularly monitor returning temporary migrants and the accumulated savings they hand-carry with them. This rule exists in countries where the majority of migrants are involved in temporary and circular migration. A positive development observed during recent years is the increased use of official channels (banks and other financial institutions such as Western Union) in remittance transfers. For instance, a study supported by the ILO noted that up to 87 per cent of Tajik migrants now transfer their earnings through official channels, and only 12 per cent still rely on friends and acquaintances (ILO, 2010).

Remittances are transferred through informal channels when financial and taxation policies are generally perceived as negative. For example, Uzbek migrants usually avoid transferring funds through official bank accounts due to a difference in the 'black market' and official conversion rates, difficulties in cashing money in the banks of their home country and, probably, other reasons as well (Centre for Economic Research, 2007). Consequently, remittance flows are significantly underestimated and their full potential in terms of providing financial benefits in the form of investment pools and retained savings is not realized.

As noted above, one of the characteristics of the subregion is that many migrant workers enter host countries legally but tend to remain in them as irregular workers. In such cases, they are more likely to perform low-paid casual jobs, and are not gainfully employed for long periods. In addition, irregular work makes migrants vulnerable to abusive practices. Due to a lack of appropriate documents, they are often less able to establish a bank account in the host country. Irregular migrants, therefore, may face additional costs and risks that migrants with legal status do not have, and thus, consequently, markedly reduce their ability to gain income and remit money.

Use of remittances

Information and data on the actual use of labour migrants' remittances are limited. The money is generally first allocated to pay off debts (often related to the cost of migration itself) and an extended family's basic needs, with expenditures mainly covering day to day expenses and leaving little for long term asset building.

The surplus is spent mostly on durable goods, such as cars, electronics, housing (to purchase or build a new house or upgrade an existing accommodation), and traditional family rituals, such as weddings, funerals and other events (especially in Uzbekistan and Tajikistan). Furthermore, it is difficult to assess the amount of remittances that supplement the seriously underfunded health and education systems, how much of it is saved and how much is invested into productive assets.

Remittance patterns are similar among net out-migration countries in Central Asia. However some variations exist. While in Central Asia remittances are spent primarily on consumption, investing in business activity, including trading, machinery and retail is relatively common in Armenia. More strategic use of remittances and their investment in micro, small and medium level business enterprises in home countries are the areas that policymakers need to encourage in migrant countries of origin.

There seems to be a consensus among various stakeholders that remittances positively influence the living standards of households in counties of origin. As a result of the active advocacy and lobbying from civil society organizations, policymakers have a clearer understanding of what potential remittances can do for the economy. This is manifested in policy decisions, such as the adoption of legislative acts and national strategies and programmes (for instance, in Kyrgyzstan and Tajikistan) aimed at increasing the positive impact of labour migration on economic development through improved financial services made available to citizens on both sides of the border, as well as other related acts and services.

Key social issues related to labour migration

There are many positive aspects of migration including reduction in household poverty and improvement in the quality of life. Remittances sent by migrants home for consumption purposes contribute to household income and enable households to address poverty issues. However, there is a need to be aware of the social impact of migration and given the increasingly proportion of women and girls in migration channels, the gender dimensions of migration. Finally this section will look at the impacts on vulnerable populations remaining 'at home', namely women, children, and older persons, as well as those vulnerable to trafficking.

Feminization of migration

Greater involvement of women has become one of the important characteristics of international migration. Surveys signal that more women are migrating from Central Asia to the Russian Federation than ever before. Indeed, 'growing numbers of women migrating independently

represent a new feature in the regional migration process' (Abdullaev, 2008:142). However, the percentage of female migrants is far lower than elsewhere and the feminization of migration is slower than in other subregions (such as Moldova and Ukraine). The "feminization of migration" is a term used to describe the change in migration patterns, wherein women are increasingly moving as independent migrants in search of jobs rather than "dependent spouses" joining male family members. The push factors for females to leave their homes in many cases are similar to that of males, as migration may be the only option in the face of poverty, or the best option for personal or family betterment. There are also gender-specific reasons for migration, for instance, women migrating to escape violent relationships.

International data suggest that migration may benefit and even empower women by providing them with economic independence, confidence and greater freedom. Migration can provide a vital source of income for migrant women and their families, and earn them greater autonomy, self-confidence and social status, changing the balance of power between men and women. However, it may also lead to their further marginalization, especially when labour markets in host locations are gender-segregated and offer different opportunities to different sexes (Jolly and Reeves, 2005).

Female migrant workers are often at a disadvantage when compared to males at all stages of the migration process because of a difference in status, the nature of employment, educational requirements, as well as stereotypes in the roles of men and women. All this makes women particularly vulnerable to discrimination, violence and exploitation and, in the worst cases, human trafficking. Studies also point to the vulnerability of men coming from rural areas, and the increased issue of human trafficking in the subregion in past decades affecting women, men and children.

Significant economic and social changes during the past twenty years in the CIS has contributed to the growth of inequality, with rural residents, the elderly and women being among the most marginalized. Traditional patriarchal values have returned, eroding the commitment of the former communist regime to 'zhenskiy vopros' ('women's issues'). Although the Gender Development Index (GDI) calculated on the basis of literacy rates, average per capita income and life expectancy remains relatively high for most of the countries in the subregion, it does not reflect the prevailing stereotyped views towards women and their rights that have become widespread, as well as the deterioration of indicators related to economic participation and opportunities and political empowerment (World Economic Forum, 2011).

The effect of transition from a centrally planned to a market economy and the new reforms in the subregion have left many women unemployed or seeking alternative forms of employment often below their

former status and qualifications (UNICEF, 1999, Paci, 2002). Many women have been relegated from the public sphere to staying at home where their work is not recognized in the formal employment statistics. Females typically earn 70 per cent or less than males in the subregion.[5]

Women have also largely missed out on the growth of the private sector during which men gained in terms of entrepreneurship, property ownership and access to credit. Women's entrepreneurship tends to be confined to small and micro businesses, utilizing the skills similar to those used at home with little use of technology, and in economic sectors where there is limited opportunity for further expansion. In the labour markets of the post-Soviet States professional segregation is common and women tend to concentrate in "feminized" sectors of economy (education, healthcare and other usually low-paid sectors). Even in the sectors where women are better represented, it does not translate into an access to decision-making and well-paid jobs. Women, especially at pension age, are most vulnerable to poverty.

A significant number of women migrant workers, despite having obtained a high level of education in their countries of origin, tend to be channelled into low-paid feminized sectors of labour markets, mainly in domestic and healthcare services. Women engaged in domestic services and the informal economy are the ones most at risk of rights violation and of being excluded from labour legislation. Indicators of migrant women's labour market point to its marginalization. Female migrant workers hold low-status jobs, work under poor conditions, receive low wages, and have no protection or any form of social insurance. Migrants are often exploited not only because they are migrants, but also for other reasons – for example, because they are women, or are young, or old, or ethnic minorities, or domestic workers, or sex workers, or have been trafficked.

Impact on those left behind

Women

Studies have found that rural households, receiving remittances from one or more members working overseas, benefit economically but must deal with a range of social problems associated with labour migration. These problems affect local communities as a whole, but have a particular impact on women. As marriages in Central Asia are patrilocal, many wives are left with their husband's parents who usually have control over remittances (Khakimov and Mahmadbekov, 2009). Women left back home usually face an increased burden of caring for children, the sick and the elderly. When remittances arrive irregularly or are spaced within longer periods of time, women are obliged to find means to support their families. Irregular remittances often put families at a greater risk of poverty, as women's ability to become self-employed may be

constrained by traditional values held in their societies. In addition, the increased pressure and emotional costs associated with the underlying fears that the migrant may not return as well as weaker family links when family members live apart for extended periods, are often cited as the most common impacts of labour migration on women left back home.

The problem of migration is compounded by the reality that those who migrate are among the most economically active, leaving elderly and young persons behind. Labour migration may also have implications for development opportunities and the social fabric of rural communities. Emerging sex imbalances in communities, affected by high rates of male labour migration, may result in fewer opportunities to form families for younger generations of women in Central Asia.

Indeed, family members at home may become dependent on remittances and reduce their own efforts at productive employment. Female-headed households often struggle to survive in the absence of the main breadwinner and, if the remittances cease, their situation could become desperate. Some long-term male migrants start parallel families in their country of destination, gradually decreasing remittances to their families at home (International Crisis Group, 2010). A recent trend in Tajikistan is divorces agreed to by phone or through text messages - *talloq* (divorce) told/written three times is believed to annul a marriage according to Shari'at (Islamic religious law). Over the past few years, this has become so widespread that Tajik human rights groups have started to pressure authorities to outlaw the practice (International Crisis Group, 2010).

Children

Families with many children in North and Central Asia, especially rural areas, bear the highest incidence of poverty (Baskakova, Tiurukanova & Abdurazakova, 2005; UNICEF, 1999). Children of migrants may be financially more secure if one or both of their parents work abroad, and some of these children may even benefit from access to higher education, but, on the other hand, they may also suffer from lack of parental care or guidance when left under the care of their grandparents or other relatives (Help Age International Central Asia, 2008). Studies indicate that children raised in migrant families do not attend classes regularly, do not have adequate access to medical services, do not properly use the remittances they receive and they are often completely withdrawn from school and forced to work at home or on a farm. Such children are also more likely to get into trouble, becoming the objects of various forms of exploitation such as prostitution and pornography, or turning into beggars and criminals, and are at a greater risk of becoming the next generation of victims of human trafficking.

Older persons

The limited research on the effects of migration on older persons in the subregion found that the elderly tend to play a strong role in supporting and facilitating migration for young and middle-age family members. 'The elderly' usually don't migrate but often serve as surrogate parents and/or heads of multi-family households, particularly when younger male members migrate, leaving the wives and children behind, and, as noted earlier, become the main decision-makers with regard to control and use of remittances.

In highly traditional societies of North and Central Asia, large extended families in which three generations live together, are still common. This is especially true in rural areas. In urban areas, where grown-up children do not share the same household with their parents, they still take care of them financially. During the post-Soviet transformation, when the pensions' size and purchasing power significantly dropped and the quality of social services, provided by the State, deteriorated, older persons have become highly dependent on the income and support provided by their working sons (and increasingly daughters). From this perspective, older persons are particularly vulnerable to isolation when their children migrate, suffering from emotional pressures and deteriorating physical and mental health.

Human trafficking

Human trafficking and slavery are relatively new phenomena in the subregion. However, the social and policy responses to critical issues associated with migration have changed over the past decade from total unawareness to increased recognition. The profile of human trafficking in the subregion has distinct differences from other parts of the world. For example, male trafficking for forced labour and slavery is believed to be more common within the subregion than female trafficking for the sex industry (Baskakova, Tiurukanova & Abdurazakova, 2005). Men are usually recruited through an agency and travel to work in organized groups. They are engaged in hard manual labour in agriculture and construction and work in extreme conditions for two to three months, including winter months, with a promise of payment at the end of the contract or season. In some cases, their documents are confiscated by their employers and there is often no opportunity to contact home. Finally, and often with the collusion of local authorities, they are forcibly repatriated or formally deported, without receiving their full wages.

Female victims of human trafficking are generally young, come from poor urban or rural areas and are desperate to escape poor living conditions. Most are trafficked for the sex industry and many may know that (but may not be aware of the exploitative conditions they will face). Often these women are recruited through a neighbour, friend or acquaintance (who is linked to an employer or trafficker abroad) or a

foreign tour operator, who is allegedly recruiting for jobs abroad. Reportedly, traders make up to $30,000 or more on a sale and resale of such women. The main destinations are United Arab Emirates (solely for the sex industry) and Turkey (for sex and forced labour), although trafficking within the subregion is also common.

The main drivers of human trafficking in the subregion are economic - a search for a rapid improvement in migrants' well-being. Gender-based discrimination and family violence also appear among causes of such phenomenon. Groups at risk include young women, divorced or widowed, often caring for children and older members of their families, and those suffering from social and mental problems, such as substance abuse or domestic violence. Unlike elsewhere in the world, trafficking in the subregion involves a high percentage of women who have completed higher levels of education. Reportedly, there are cases of trafficking minors for the sex industry. Those living without parents or coming from vulnerable families or orphanages are at a greater risk (Baskakova, Tiurukanova and Abdurazakova, 2005). As in the case with data on migration, there is no specific data on child trafficking from families of migrants that could help provide a more complete picture of the phenomenon.

Conclusion and recommendations

Despite the continuing economic crisis and the subsequent decline of remittances, labour migration flows are expected to continue over the long-term and remain strong social and economic development factors both for the countries of origin of migrants in Central Asia, and the recipient countries. Even if Central Asian countries succeed in boosting domestic employment, the Russian Federation's medium- to long-term need for migrants will remain acute. The National Statistical Office of Russia predicts that the population of the Russian Federation will decline by 11 million between 2008 and 2025 (Russian Federation Federal State Statistics Office, 2009). This has major implications for the country's labour force. Starting from 2006, the numbers of economically active working-age Russians have been shrinking, and the process, according to the experts' forecasts, will intensify over the coming decades.

According to the Ministry of Economic Development of the Russian Federation, the number of working people will decrease from 67.9 to 64.6 million between 2011 and 2020, resulting in a significant deficit in the labour market (Ministry of Economic Development, 2011). According to independent experts, the numbers of working-age Russians will shrink even faster – by approximately one million every year between 2011 and 2017, which will require even larger numbers of foreign workers, or new citizens, in the years to come in order to sustain the country's economic development (UNDP, 2008). Taking into consideration this perspective, labour migration will continue to be one of the key policy issues and priorities facing the subregion. The challenge however

remains in how to better utilize migration's potential for the positive development of people, communities and countries across Central Asia.

The following recommendations should be considered by policymakers to reduce the negative impact of migration and increase remittances in both the sending and recipient countries:

First, governments should recognize that migration cannot be addressed by restrictive measures only; migration is an important factor in economic development and social stability. Governments should therefore engage more actively in a constructive dialogue at the subregional level, which should result in coordinated and concerted measures aimed at reducing irregular migration and its negative effects such as forced labour and human trafficking.

Second, gender-sensitive policies could significantly improve the living and working conditions of female migrant workers. To achieve this, it is necessary to educate, raise awareness and train officials from various agencies dealing with labour migration in issues relating to gender and women's rights and promote collaboration between different agencies. It is also critical to build technical expertise in incorporating gender concerns into migration policies and practices. For this to happen, sex-disaggregated data on migration to support the decision-making process should be collected and made available. Monitoring and evaluating practices should be conducted using gender perspective. Policies and practices should be examined to integrate gender impact assessments.

Third, governments, civil society actors and international organizations should facilitate migration by undertaking specific measures to address the needs of migrants. The measures should include developing, adopting, enforcing and implementing specific policies and programmes targeting migrant workers both in countries of origin and destination. Among other things, such measures should offer educational programmes which help migrants become familiar with the culture at destination points, teach them language skills and support the establishment of centres at destination points where migrants can receive legal consultation, medical help, psychological advice and other assistance.

Finally, greater effort should be given to social protection measures. Services such as easily accessible legal consultations, medical and psychological advice should also be provided to women and other members of migrant families left behind. Migrant workers should also have access to economic means such as low-interest credit and others. Strategic and sustainable use of remittances should be encouraged by organizing educational programmes for migrants, both female and male, on financial management of their earnings. In countries of destination, advocacy campaigns involving mass media to reduce stereotyping, xenophobia and racism towards migrant workers among the population should be organized.

Endnotes

1 There are two types of Armenian Diaspora: "old" (those descended from Armenians who left Armenia before the 1980s) or "new" (emigrants who began to leave Armenia starting from 1980s). Overall, the Diaspora is estimated to have involved between 3 and 4.5 million persons. Although accurate statistics are not available, the Armenian Diaspora is believed to be divided between approximately 1.5 million Armenians in the countries of the former Soviet Union with the rest dispersed to other parts of the world (North America, Europe, Middle East, India, etc) (USAID, 2004, p.44).

2 Citizens of Azerbaijan migrating to Russia should not be included with ethnic Azeri living in different parts of the Russian Federation (as in Dagestan or some other parts of the North Caucasus).

3 Tajikistan was engulfed in civil war from 1992 until 1997 which pitted supporters of the Government against a loosely organized opposition composed of ethnic and regional groups from the areas Garm and Gorno-Badakhshan.

4 For instance, in 2006, Ministry of Interior of Tajikistan was tasked with handling migration issues, taking over the role from the Ministry of Labour, which it held since 1992.

5 This is an average gender pay gap cited in various collections of gender statistics published in the countries of the region on a regular basis.

References

Abdullaev, Evgeniy. (ed.). (2008). Labour Migration in the Republic of Uzbekistan: Social, Legal and Gender aspects. Tashkent.

Ablezova, M., Nasritdinov E., and Rahimov, R. (2008). The impact of migration on elderly people: grandparent-headed households in Kyrgyzstan. Bishkek: Help Age International Central Asia, Social Research Centre, American University of Central Asia.

Adams, R.H., and Page, J. (2003). International migration, remittances, and poverty in developing countries. World Bank Policy Research Working Paper No. 3179. The World Bank: Washington D.C.

Baskakova, M., Tiurukanova, E., & Abdurazakova,D. (2005). Human trafficking in the CIS. *Development & Transition*, No. 2 (November).

Center for Economic Research (2007). The impact of remittances on the economy of Uzbekistan. Policy brief No. 2007/01, Tashkent.

Ghosh, J. (2009). Migration and gender empowerment: Recent trends and emerging issues. Human Development Research Paper, No. 4. United Nations Development Programme: New York.

International Agency for Source Country Information, and International Organization for Migration (2009). Maximizing the development impact of migration-related financial flows and investment from Austria to Bosnia and Herzegovina. Final Report. Vienna: IASCI.

International Crisis Group (2010). Central Asia: migrants and the economic crisis. Asia Report No. 183 (5 January).

International Labour Organization (2010). Migrant remittances to Tajikistan: the potential for savings, economic investment and existing financial products to attract remittances. Moscow: ILO.

International Fund for Agricultural Development (2006). Rural outmigration, trafficking and HIV/AIDS: mobilizing migrants' retained savings for employment generation: Armenia and the Republic of Moldova. IFAD Research report No. 1740 (December). IFAD:Rome.

Jolly, S., & Reeves, H. (2005). Gender and migration: Overview Report. Bridge/Institute of Development Studies: UK.

Khakimov, P., &. Mahmadbekov, M. (2009). Economic dynamics of labour migrants' remittances in Tajikistan. IOM Tajikistan (April).

Kyrgyzstan, (2010). Press-conference of Ms. Ryskulova A., Minister of Labour, Employment and Migration. Bishkek, Kyrgyzstan (18 October). Accessed 18 October, 2010 from: http://vesti.kz/index.php/asia/66267.

Marat, E. (2009). Labour migration in Central Asia: implications of the global economic crisis. Central Asia-Caucasus Institute & Silk Road Studies Program Paper. (May)

Mohapatra, S., Ratha, D., & Scheja, E. (2010) Impact of migration on economic and social development: A review of evidence and emerging issues. World Bank Background paper. The World Bank: Washington D.C.

Mohapatra, S., Ratha, D., & Silwal, A. (2011). Outlook for remittance flows 2012-2014. World Bank Migration and Development Brief , No.17.

Olimova, S. & Bosc, I. (2003). Labour migration from Tajikistan. Dushanbe, Tajikistan: IOM.

Olimova, S. & Mamajanova,N. (2006). Trafficking in human beings in Tajikistan. Analytical report. Dushanbe, Tajikistan: IOM.

Organization for Security and Co-operation in Europe, and International Organization for Migration (2009). Regional conference on "Migrant investment, return and economic reintegration for development in the SEE and CA regions", Kahlenberg, Vienna, 10 December - 11 December.

Orozco, Manuel (2008). Remittance transfers to Armenia: preliminary survey data analysis. USAID microREPORT No 117 (September).

Paci, Pierella (2002). Gender in Transition. Washington D.C: The World Bank.

Panfilova, Victoria (2008). Financial crisis has complicated situation in the labour market in Russia and the CIS. Nezavisimaya gazeta, 8 December. Accessed on 30 August 2010 from: http://www.migrant.ru/smi.php?id=215.

Roberts, B. W., and others (2004). Remittances in Armenia: size, impact, and measures to enhance their contribution to development. Yerevan, Armenia: USAID.

Romodanovsky, K. (2010). Interview by Interfax-Russia (8 September). Accessed on October 4 2010 from: http://www.rg.ru/2011/03/03/kvoty-anons.html.

Rueegg, M. (2008). The effects of labour migration on rural development in Kyrgyzstan: assessment of the current rural workers emigration and its consequences for Helvetas interventions. (June-August). Helvetas: Kyrgyzstan. Accessed on 5 September 2010 from: www.majarueegg.com/Archivos/Speeches/Impacts LabourMigration_oct08.pdf.

Russian Federation Federal State Statistics Service. (2009). Demographic Situation in the Russian Federation.

Thorez, J. « Itinéraires du déracinement », Espace populations sociétés [En ligne], 2007/1, mis en ligne le 30 août 2009, consulté le 03 septembre 2010. http://eps.revues.org/index1955.html.

Thorez, J. L'émigration des « Russophones » d'Asie centrale », EchoGéo [En ligne], Numéro 9 | 2009, mis en ligne le 12 juin 2009, consulté le 03 septembre 2010. http://echogeo.revues.org/11212.

United Nations Development Programme. (2008). Russia Facing Demographic Challenges. The Russian Federation National Human Development Report. Moscow:UNDP.

_____ (2009a). Migration and Human Development: Opportunities and Challenges. The Armenia National Human Development Report. Yerevan,Armenia:UNDP

_____ (2009b). Overcoming Barriers: Human Mobility and Development. Global Human Development Report 2009. New York: UNDP.

United Nations Children's Fund (UNICEF). (1999). Women in Transition. Regional Monitoring Report No 6. Florence, Italy: UNICEF.

World Bank (2011a). Migration and Remittances Fact Book 2011. Accessed on 12 December 2010 from: http://siteresources.worldbank.org/INTLAC/Resources/Factbook2011-Ebook.pdf.

_____ (2011b). Press release No: 2011/168/DEC. Accessed on 10 November 2010 from: http://go.worldbank.org/AOQONKFW80.

World Economic Forum (2011). The Global Gender Gap Report 2011. Accessed on 30 November 2010 from: http://www.weforum.org/issues/global-gender-gap.

Zayonchkovskaya, Z. (2010). Interview by Rossiyskaya Gazeta, Federal issue No. 5220 (141) (30 June). Accessed on 22 August 2010 from: http://www.rg.ru/2010/06/30/demografia-poln.html.

Economic Activity in Post Retirement Life in India

The article analyses trends in work participation and working life expectancy in post retirement life of persons aged 60 plus by primary, secondary and tertiary sectors to examine a correlation between longevity and post retirement economic activity in India. It was found that in India the average length of working life at 60 plus is 9.8 years for males and 3.9 years for females. Though the life expectancy at 60 plus for males had increased by 2.9 years over the period 1971-2001, working life expectancy for males had decreased marginally by 0.1 years during the same reference period. On the other hand, with a 4.2 year gain in longevity at age 60 plus among females during 1971-2001, their working life expectancy increased by 2.4 years during the same reference period. Work participation has shifted from the primary to the formal sector, which indicates an increase in productive activity in the post retirement period.

By Preeti Dhillon* and Laishram Ladusingh†

There is a common notion in developing countries that increased longevity leads to more years of economically productive life. This is based on the assumption that one's health condition either improves or at least does not worsen during post retirement and that economic opportunities are available for all. In developing countries, with the fall in mortality and lengthening of life expectancy, numerous questions about the quality of the years lived and work participation at the post retirement age of 60 plus have been raised. This question is also relevant in the Indian context and it is important to know whether Indians

* Research Scholar, International Institute for Population Sciences, Deonar, Mumbai, Email: pdhillon_maths@yahoo.co.in

† Professor, International Institute for Population Sciences, Deonar, Mumbai, Email: lslaishram@iips.net

are spending longer economically active lives or whether an increasing fraction of life past 60 is spent being economically dependent. This is the hypothesis that this study seeks to validate. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP, 2002) recommended that national policies on old age should recognize the potential of older persons to contribute to development, abandoning the negative perception of the economic burden of older persons and embracing a positive attitude towards ageing. Healthy ageing is all about economically empowered disability-free post retirement life. A major public health responsibility for most developing countries is to improve the quality of life and prevent or reduce disability, physical and economic dependency of the ageing population.

Weakening of traditional support systems, lack of personal savings, limited pension coverage or lack of public support for older persons in developing countries all may compel people to continue working past 60. In contrast, people in more developed countries can seek early retirement because of sound social security and savings accrued during their prime working-age years. On the other hand, availability of work in agricultural and allied sectors as well as in various activities in unorganized sectors of less developed countries provide people with work opportunities (Audinarayana, 2001). According to the 2001 census of India, the work participation rate among older persons aged 60 and over is around 40 per cent. More older men than women participate in economic activities and that participation is higher in rural than in urban areas. Most older persons working are engaged in agriculture. Nearly half of older persons are fully dependent on others, while another 20 per cent are partially dependent (Anand et al, 2006). The proportion of older workers to total workforce has increased during the past decade (1991-2001) from 7.3 to 7.9 (from 8.2 to 8.9 for males and from 5.2 to 6.7 for females). The median age of workers in primary, secondary and tertiary sectors are on the rise in India. However, nearly 90 per cent of the total workforce is employed in the unorganized sector with no provision for financial security such as pensions and other post-retirement benefits. The Government of India, in the National Policy for Older Persons (NOAPS, 1999), has reported that 33 per cent of the 60 plus population lives below the poverty line.

From the studies on work participation of the population 60 plus in India, it is difficult to ascertain whether increasing longevity over time has led to post retirement work participation. To find the linkages between increasing longevity and work participation in post retirement age, we have constructed working life expectancies for primary, secondary and tertiary sectors which are discussed below.

Review of literature

A number of efforts have been made to assess working life expectancy. Nurminen and others (2005) have used working life expectancy for Finnish workers in the municipal sector to quantify how long a 45-year-old municipal worker, on average, continues to work. Using 1971 Census data, Krishnan (1977) had calculated the working life expectancy for India by sex and compared it with that of other developing countries. Based on the results, he concluded that Indian males fare better than their Ghanaian and Nigerian counterparts in labour force participation, but female labour force participation in India lags behind that of both Nigeria and Ghana. Shoven and others (2008) examined four possible methods for adjusting the eligibility ages for social security, Medicare and individual retirement accounts in the United States to determine minimum eligibility ages today and in 2050 if adjustments for mortality improvement were taken into account.

Zweifel, and others (1999) on the basis of econometric analysis of health care expenditure data from deceased Swiss individuals in the last eight quarters of life, and of individuals who died from 1983 to 1992, observed that health care expenditure depends on remaining life but not on calendar age, at least beyond 65 plus. Ozcan and others (2005) constructed a model in which individuals make their choice between work and leisure over their lifetime, subject to uncertainty about their age of death. In an environment in which mortality is high, an individual who saved up for retirement would face a high risk of dying before they could enjoy their planned leisure. In this case, the optimal plan is for people to work until they die. As mortality falls, however, it becomes optimal to plan and save for retirement. The authors simulated a model using actual changes in the United States life table over the past century and demonstrated that this "uncertainty effect" of declining mortality would have more than outweighed the "horizon effect" by which rising life expectancy would have led to later retirement. Lee (2000) estimated the expected length of retirement for each labour market cohort in the United States between 1850 and 1990. Since 1850, the expected length of retirement has increased more than six-fold and now represents up to 30 per cent of a male's life after entry into the labour force. The rise in the duration of retirement during the twentieth century is analysed according to the effects of mortality decline as well as decreased age of retirement.

The health status of older persons would affect their participation in the labour force, for example, older persons maintaining good health would have a greater chance of being in the workforce (Ogawa and others, 1994). Otherwise, it may be argued that because of ill health older persons may not be able to participate in economic activities during their old age even under pressing economic conditions (Audinarayana, 2001).

The studies reviewed do not address the main issue of increased longevity and work participation at post retirement age in India. As such, many of the following questions remain unanswered:

- Whether longevity enhances economic activities in post retirement life or whether an increasing fraction of life course is more likely to be spent as economically dependent?
- Is there any difference in working life expectancy in post retirement life by sex and primary, secondary and tertiary sectors of employment?

In this paper an attempt is made to answer the above questions in terms of:

1) Analysing trends in age-specific work participation rates by sex and sectors of employment in India.
2) Analysing trends in working life expectancies and differentials in expected years of working life and length of life at post retirement age, by sex.

Methods and materials

Economic tables from 1971, 1981, 1991, and 2001 censuses have been used to compute the trend in age-specific work participation rates by sex and sectors of employment. Sample Registration Systems, based on the abridged life tables for 1970-1975, 1980-1985, 1989-1993 and 1999-2003 from the Registrar General of India, have been used to construct working life tables. Census data provides information on work participation rates by age group. Age-specific work participation rates by sex were computed for primary, secondary and tertiary sectors separately. The primary sector includes cultivation, agricultural activities, livestock breeding, forestry, fishing, hunting, fruit and vegetable growing and allied activities as well as mining and quarrying. The secondary sector includes manufacturing, processing, construction, servicing and repairs in: (a) household industry; (b) other industries. The tertiary sector includes trade and commerce, transport, storage, communications and others services.

Working life table

A working life table is a multiple decrement life table which considers the net of mortality and work participation. Conventionally, the starting age for a working life table is the minimum legal age for employment say, 15 (or 14, 16), which terminates at the age of 65 (or earlier), the normal retirement age or age eligible for receiving old-age pension. In

India, the average retirement age is 60 though this varies across States. The inputs for creating working life tables are age-specific death rates and age-specific labour participation rates (${}_nw_x$) (Phang, 2005). Working life expectancy is the number of years that a person of a given age is expected to be working in the remaining life span based on prevailing age specific work participation and age specific mortality rates (Nurminen, and others, 2005).

The computational procedure of working life tables are described below:

Step 1: From the existing abridged life tables, created by the Registrar General of India from 1970-1975 to 1999-2003, life table l_x column and population ${}_nL_x$ are taken for the construction of the working life table.

Step 2: Years of working life of a person is obtained as: ${}_nWL_x = {}_nw_x * {}_nL_x$, where, w_x the age-specific work participation rate.

Step 3: Years a person is expected to live in working status after age x is computed as:

$${}_nWT_x = \sum_{t=0} {}_nWL_x$$

Step 4: The working life expectancy is then calculated from the following formula:

$$We_x = {}_nWT_x/l_x$$

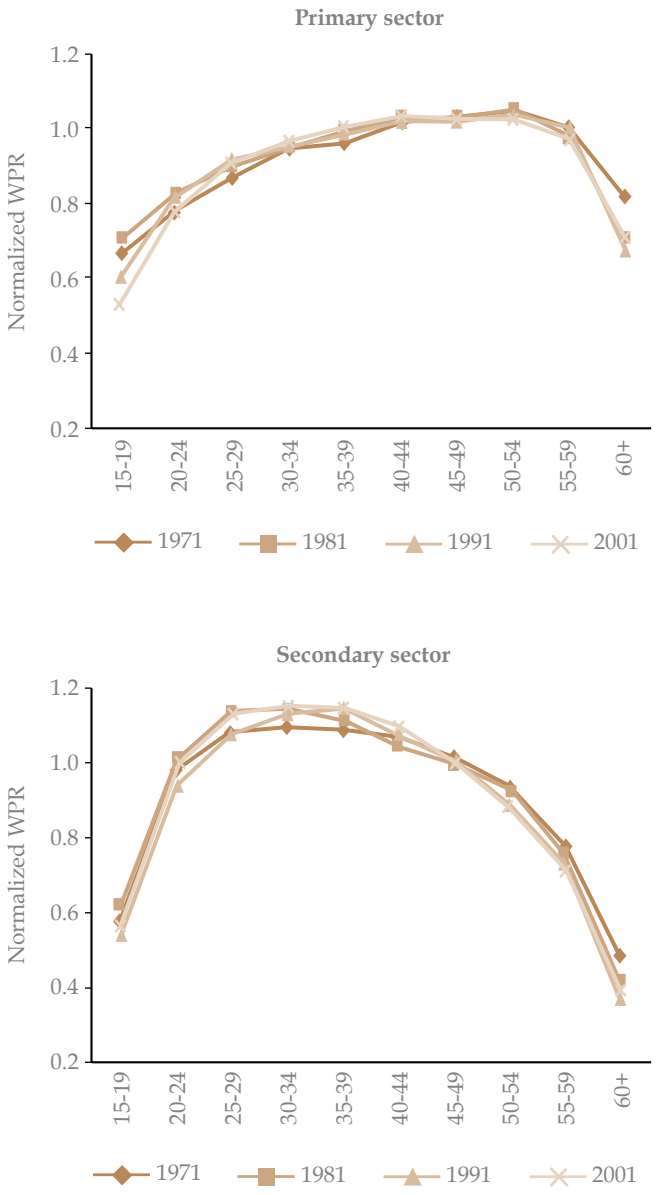
Further, census data provides information on work participation for broad ten-year age groups, 30-39, 40-49, 50-59 etc. The ten-year age groups were converted to five-year age groups using the Karup-King Formula (Siegel and others, 2004).

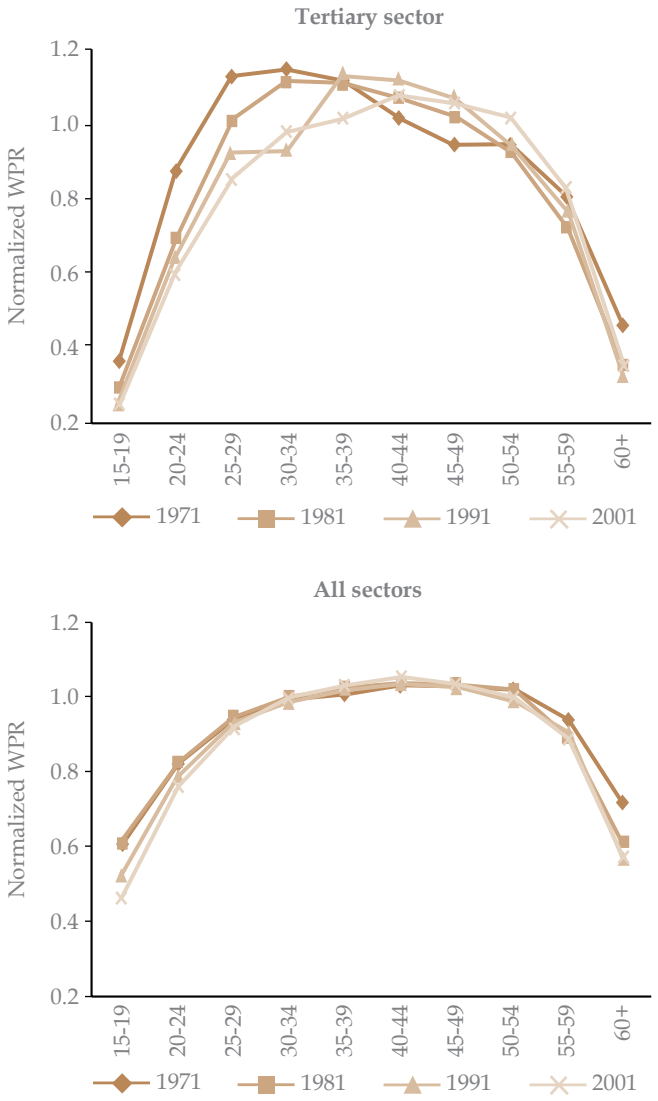
Results

To compare the work participation rates of post retirement age groups with those of prime working age groups, age-specific work participation in each age group in specific sectors was normalized by dividing by the average work participation rate of prime workers (30-59 years) in the corresponding sector of employment. Figure 1 shows the trends in normalized age-specific work participation rates by employment sector. It can be seen that work participation rates in the age group 40-54 in the primary sector were higher than those of prime workers aged 30-59 years during 1971-1991. However in post retirement, work-participation rates were lower by 19 and 29 per cent, respectively, in 1971 and 2001, compared to the prime working age group. Work participation rates during 1971-2001 for the age group 25-49 years in the secondary

sector and 35-49 years in the tertiary sector were higher than the average work participation rates of prime workers in age groups 30-59 years.

Figure 1. Trends in age-specific normalized work-participation rates by sector in India (1971-2001)





Work participation rates for people above 50 years, in comparison with the prime working age group, decreased for the entire period from 1971 to 2001 and for people above 60, in 2001, it became lower by 61 and 68 per cent for the secondary and tertiary sectors, respectively. In 2001, total work participation rates for the population above age 60, regardless of sector, was lower by 43 per cent than that of prime workers of 30-59 years, declining from 29 per cent in 1971. The overall message of this analysis is that in all sectors work participation rates at post retirement age in comparison with that of prime working age groups (30-59 years) declined over the period 1971-2001.

Trend analysis of work participation rates by broad age groups suggests that there was a slight increase in the total work participation rate for 15-59 years group to over 600 per 1000 persons during 1971-2001. This increase was due to the increase in female work-participation rates from 546 to 610 per 1000 females, while male work participation rates have declined from 869 to 806 per 1000 males. However, for the post retirement age, total work participation has declined from 432 to 403 per 1000 persons during 1971-2001. On the other hand, for older women work participation rates have increased from 105 to 209 per 1000 and for older men they have declined from 738 to 602 per 1000. This changing age and sex pattern of work participation in India during 1971-2001 is shown in figure 2.

Figure 2. Trends in work participation rates by age and sex in India (1971-2001)

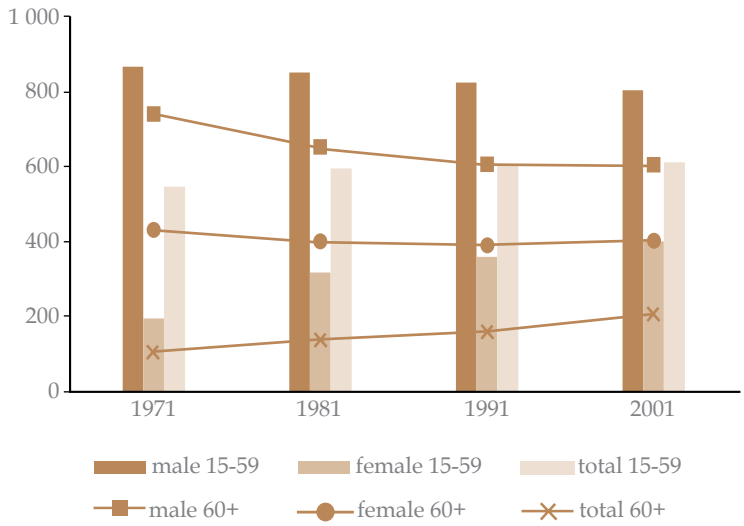


Table 1 shows the working life expectancy (WLE) and life expectancy (LE) from 1971 to 2001. It is noted that working life expectancy for males at age 15 was 42.5 years in 1971 and 42.5 years in 2001 compared to 49.3 years of life expectancy at age 15 in 1971 and 53.7 years in 2001. On the other hand, working life expectancy for females at age 15 has increased from 9 to 19.3 years corresponding to an increase in life expectancy from 49.8 to 52.7 years during 1971-2001. Working life expectancy at age 30 for males was estimated at 32.5 years in 1971 and 33.8 years in 2001 in comparison with the enhancement in life expectancy at age 30 from 36 years in 1971 to 40.2 years in 2001. The increase in female working life expectancy at age 30 for the same period is from 6.8 to 16 years corre-

Table 1. Life expectancy and working life expectancy for India, (1971-2001)

Age group	1971			1981			1991			2001		
	WLE	LE	%WLE	WLE	LE	%WLE	WLE	LE	%WLE	WLE	LE	%WLE
						Male						
10-14	42.4	53.8	78.8	43.1	56.1	76.8	42.4	57.1	74.3	42.7	58.4	73.1
15-19	42.5	49.3	86.2	43.1	51.5	83.7	42.4	52.4	80.9	42.5	53.7	79.1
20-24	40.2	44.8	89.7	40.9	47	87.0	40.6	47.9	84.8	40.8	49.1	83.1
25-29	36.7	40.4	90.8	37.4	42.5	88.0	37.3	43.4	85.9	37.7	44.6	84.5
30-34	32.5	36	90.3	33.3	38.1	87.4	33.2	38.9	85.3	33.8	40.2	84.1
35-39	28.3	31.7	89.3	29	33.7	86.1	28.9	34.5	83.8	29.5	35.8	82.4
40-44	24.2	27.6	87.7	24.7	29.4	84.0	24.5	30.1	81.4	25.3	31.5	80.3
45-49	20.2	23.6	85.6	20.5	25.3	81.0	20.3	25.9	78.4	21.1	27.4	77.0
50-54	16.5	19.8	83.3	16.5	21.4	77.1	16.2	21.9	74.0	17	23.4	72.6
55-59	12.9	16.4	78.7	12.7	17.8	71.3	12.4	18.2	68.1	13.2	19.6	67.3
60+	9.9	13.4	73.9	9.5	14.6	65.1	9	14.9	60.4	9.8	16.3	60.1
						Female						
10-14	9	54.2	16.6	15.1	58	26.0	17.4	59	29.5	19.6	57.4	34.1
15-19	9	49.8	18.1	15	53.5	28.0	17.3	54.4	31.8	19.3	52.7	36.6
20-24	8.3	45.6	18.2	13.9	49.2	28.3	16.2	50	32.4	19.4	52.7	36.8
25-29	7.6	41.6	18.3	12.6	44.9	28.1	14.7	45.7	32.2	17.8	48.3	36.9
30-34	6.8	37.5	18.1	11.2	40.7	27.5	13.1	41.4	31.6	16	43.9	36.4
35-39	5.9	33.4	17.7	9.7	36.4	26.6	11.3	37	30.5	13.9	39.5	35.2
40-44	5	29.3	17.1	8	32.1	24.9	9.5	32.6	29.1	11.7	35	33.4
45-49	4	25.2	15.9	6.4	27.9	22.9	7.5	28.2	26.6	9.5	30.6	31.0
50-54	3.1	21.3	14.6	4.8	23.8	20.2	5.7	23.9	23.8	7.4	26.3	28.1
55-59	2.2	17.7	12.4	3.4	20	17.0	4	19.9	20.1	5.5	22.2	24.8
60+	1.5	14.3	10.5	2.3	16.4	14.0	2.6	16.2	16.0	3.9	18.5	21.1

Note: LE: Life expectancy, WLE: Working life expectancy, %WLE=WLE/LE*100

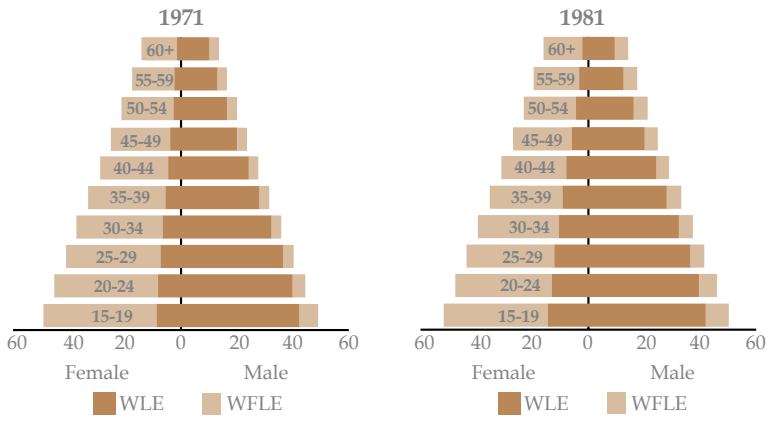
sponding to a jump in life expectancy at age 30 from 37.5 to 43.9 years. At age 45, male working life expectancy was estimated at 20.2 years in 1971 and 21.1 years in 2001 in comparison with 23.6 years and 27.4 years of life expectancy at age 45 in 1971 and 2001, respectively. At age 45, female working life expectancy was estimated at 5.0 years in 1971 and 11.7 years in 2001 while the corresponding life expectancies were estimated at 29.3 years in 1971 and 35.0 years in 2001.

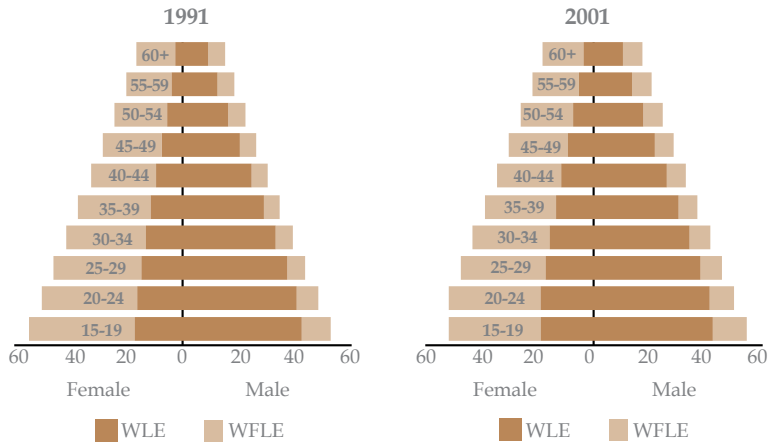
In terms of percentages, males at post retirement age were expected to work 73.9 per cent of their remaining life in 1971 but the percentage had declined to 60.1 in 2001. However, women aged 60 or above were expected to work 10.5 per cent of their remaining life in 1971 but this percentage has increased to 21.1 in 2001.

Moreover, a gap between life expectancy and working life expectancy at post retirement could be observed. There was a significant gap between LE and WLE for females, but the gap has narrowed in the past four decades, while, for males this gap has widened during the same period.

Figure 3 shows the evolving pattern of age-sex pyramids of life expectancy and working life expectancy for India from 1971 to 2001. It is evident from the age-specific gap between life expectancy and working life expectancy that for males with the improvement in life expectancy, working life expectancy has changed marginally. The gap is more evident in the case of younger males mainly because of increased years of schooling before entering the labour market. Whereas for females, although working life expectancy has increased somewhat in the younger age groups as well as in the post retirement age, the gap between life expectancy and working life expectancy is still very wide in comparison with that of males. This indicates a significant difference between male and female work participation and working life expectancy.

Figure 3. Age-sex pyramids of life expectancy and working life expectancy, India (1971-2001)





Note: WFLE: work-free life expectancy; WLE: working life expectancy

Working life expectancies are further calculated by sectors, assuming that there are no differences in mortality in each of the sectors. Results are shown in table 2 and figure 4. There was a 0.8 year decline in the primary sector, a 0.2 year increase in the secondary sector and a 0.3 year increase in the tertiary sector working life expectancy at age sixty from 1971 to 2001. By sex, for males there was a 1.4 year decline in the primary sector, a 0.2 year increase in the secondary sector, a 0.3 year increase in the tertiary sector in working life expectancy at age 60. While for females, a 0.4 year increase in the primary sector, a 0.1 year increase in the secondary sector and a 0.2 year increase in the tertiary sector in working life expectancy was observed during the same period from 1971 to 2001. It can clearly be observed that among older males there is a shift from the primary to the tertiary sector and also that the decline in male working life expectancy comes from the decline in the primary sector. However, female working life expectancy has increased in all sectors.

Analysis of working life expectancy at post retirement age across different States in India (table 3) demonstrates that Kerala's working life expectancy is the lowest among all States, while it is the second highest in terms of life expectancy after Punjab for both males and females. For males WLE is 7.7 years and for females it is 1.8 years, while LE is 19 and 20.6 years for males and females, respectively. This phenomenon in Kerala could be explained by the fact that most people over 60 in the state are return migrants from the Gulf and they may be depending on their savings for their livelihood. On the other hand, Bihar males at age 60 and over have the highest working life expectancy of 12 years corresponding to 17 years of life expectancy at this age, while females in

Table 2. Working life expectancy by age, sex and sectors, India, (1971-2001)

Age group	1971				1981				1991				2001			
	P	S	T	WLE	P	S	T	WLE	P	S	T	WLE	P	S	T	WLE
Total																
10-14	19.4	2.8	4.4	26.7	21.3	3.6	5.0	27.5	21.6	3.3	5.2	28.1	20.4	4.6	7.2	25.6
15-19	19.2	2.8	4.4	26.5	21.2	3.6	5.0	27.5	21.5	3.3	5.3	28.1	20.2	4.6	7.2	25.6
20-24	18.0	2.6	4.3	25.0	19.9	3.4	4.9	26.0	20.3	3.1	5.2	26.8	19.3	4.3	7.1	24.8
25-29	16.7	2.3	3.9	23.0	18.2	3.0	4.6	23.9	18.6	2.8	4.8	24.7	17.8	3.9	6.6	23.1
30-34	15.1	2.0	3.3	20.6	16.5	2.6	4.0	21.4	16.8	2.4	4.2	22.1	16.1	3.4	5.9	20.9
35-39	13.4	1.7	2.8	18.0	14.6	2.2	3.4	18.7	14.8	2.1	3.6	19.3	14.3	2.8	5.1	18.3
40-44	11.6	1.4	2.3	15.4	12.6	1.8	2.7	16.0	12.8	1.7	2.9	16.4	12.4	2.3	4.3	15.7
45-49	9.8	1.1	1.8	12.8	10.6	1.4	2.1	13.2	10.7	1.3	2.2	13.4	10.5	1.8	3.4	12.9
50-54	8.1	0.9	1.4	10.3	8.6	1.1	1.5	10.4	8.7	1.0	1.7	10.6	8.6	1.4	2.6	10.2
55-59	6.4	0.6	1.0	8.0	6.7	0.8	1.0	7.9	6.8	0.7	1.1	8.0	6.8	1.0	1.7	7.7
60+	**4.9**	**0.4**	**0.7**	**6.0**	**5.0**	**0.5**	**0.7**	**5.8**	**5.0**	**0.4**	**0.6**	**5.7**	**5.2**	**0.7**	**1.1**	**5.6**
Male																
10-14	30.0	4.7	7.6	42.4	28.8	5.7	8.5	43.1	27.5	5.3	9.5	42.4	24.3	6.8	11.6	42.7
15-19	30.0	4.7	7.6	42.5	28.8	5.8	8.5	43.1	27.4	5.3	9.6	42.4	24.1	6.8	11.6	42.5
20-24	28.2	4.5	7.4	40.2	27.1	5.5	8.3	40.9	26.0	5.0	9.4	40.6	23.0	6.4	11.4	40.8
25-29	25.9	4.0	6.7	36.7	24.8	4.9	7.7	37.4	23.9	4.5	8.7	37.3	21.4	5.8	10.6	37.7
30-34	23.3	3.4	5.7	32.5	22.4	4.2	6.7	33.3	21.5	3.9	7.6	33.2	19.4	5.0	9.4	33.8
35-39	20.6	2.9	4.7	28.3	19.9	3.5	5.6	29	19.0	3.3	6.6	28.9	17.3	4.1	8.1	29.5
40-44	17.9	2.4	3.8	24.2	17.3	2.8	4.5	24.7	16.6	2.6	5.3	24.5	15.2	3.4	6.8	25.3
45-49	15.3	1.9	3.0	20.2	14.8	2.2	3.5	20.5	14.1	2.0	4.1	20.3	13.0	2.7	5.4	21.1
50-54	12.7	1.4	2.3	16.5	12.3	1.7	2.5	16.5	11.8	1.5	3.0	16.2	10.9	2.0	4.1	17
55-59	10.3	1.0	1.7	12.9	9.8	1.2	1.7	12.7	9.4	1.1	2.0	12.4	8.9	1.5	2.8	13.2
60+	**8.0**	**0.7**	**1.1**	**9.9**	**7.6**	**0.8**	**1.1**	**9.5**	**7.2**	**0.7**	**1.2**	**9**	**7.1**	**1.0**	**1.7**	**9.8**

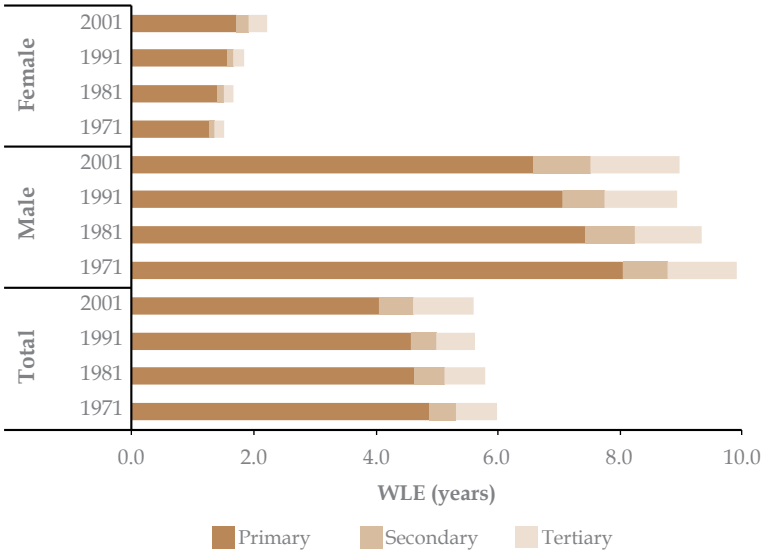
(continued)

Table 2. *(Continued)*

Age group	1971				1981				1991				2001			
	P	S	T	WLE	P	S	T	WLE	P	S	T	WLE	P	S	T	WLE
								Female								
10-14	7.5	0.7	0.9	9	12.7	1.2	1.2	15.1	14.8	1.1	1.5	17.4	15.2	2.0	2.4	19.6
15-19	7.4	0.7	0.9	9	12.6	1.2	1.2	15	14.7	1.1	1.5	17.3	14.9	2.0	2.4	19.3
20-24	6.9	0.6	0.9	8.3	11.7	1.1	1.2	13.9	13.7	1.0	1.5	16.2	15.0	2.0	2.4	19.4
25-29	6.3	0.5	0.8	7.6	10.6	0.9	1.1	12.6	12.5	0.9	1.4	14.7	13.8	1.8	2.3	17.8
30-34	5.7	0.5	0.7	6.8	9.5	0.8	0.9	11.2	11.1	0.8	1.2	13.1	12.4	1.6	2.0	16
35-39	4.9	0.4	0.6	5.9	8.2	0.7	0.8	9.7	9.6	0.6	1.0	11.3	10.8	1.3	1.8	13.9
40-44	4.2	0.3	0.5	5	6.9	0.5	0.6	8	8.1	0.5	0.8	9.5	9.2	1.1	1.5	11.7
45-49	3.4	0.2	0.4	4	5.5	0.4	0.5	6.4	6.5	0.4	0.6	7.5	7.5	0.8	1.2	9.5
50-54	2.6	0.2	0.3	3.1	4.1	0.3	0.4	4.8	5.0	0.3	0.4	5.7	5.9	0.6	0.9	7.4
55-59	1.8	0.1	0.2	2.2	2.9	0.2	0.3	3.4	3.5	0.2	0.3	4	4.4	0.5	0.6	5.5
60+	**1.3**	**0.1**	**0.1**	**1.5**	**2.0**	**0.1**	**0.2**	**2.3**	**2.3**	**0.1**	**0.2**	**2.6**	**3.1**	**0.3**	**0.4**	**3.9**

Note: P: working life expectancy in primary sector; S: working life expectancy in secondary sector; T: working life expectancy in tertiary sector

Figure 4. Working life expectancy at age 60 by sex and sectors



Himachal Pradesh are reported to have 6.7 years of working life expectancy. This is largely due to the engagement of older women in small and cottage industries as it is a popular tourist destination.

This article is an attempt to explore whether there is an association between increased life expectancy and the continuation of economic activity in post retirement age 60 plus in India. It has been demonstrated that, contrary to expectations, in post retirement age total work participation has declined in the period from 1971 to 2001. While elderly female work participation rates have increased, elderly male work participation rates have declined for the same period. Similar results were found for the United States in Burtless et al (2000). Still, economic participation of older women lags behind that of men in India. In all employment sectors, work participation rates at post retirement age in comparison with that of prime working age group 30-59 years declined during the period from 1971 to 2001.

Based on this study, the findings suggest that in terms of the relationship between life and working life expectancies for males, longevity does not promote post retirement work participation. However, for females, it is the other way around as their participation in economic activities has increased with the increase in longevity over time. However, overall, improvements in longevity do not extend working life of the population 60 plus in India. When comparing the ratio of WLE to LE it was found out that for males, 73.9 per cent of their remaining life in

Table 3. Life and working life expectancies at 60+ by sex for major states in India, 2001

State/India	Male		Female	
	WLE	LE	WLE	LE
Kerala	7.7	19.0	1.8	20.6
Orissa	7.9	12.7	2.9	15.9
Gujarat	8.0	15.7	3.0	17.4
West Bengal	8.8	16.4	2.0	17.5
Rajasthan	9.0	16.0	4.0	17.5
Maharashtra	9.4	17.0	5.0	17.9
Karnataka	9.4	16.2	4.1	18.5
Haryana	9.5	19.5	3.7	20.2
Madhya Pradesh	9.8	15.3	4.7	15.9
India	**9.8**	**16.3**	**3.9**	**18.5**
Tamil Nadu	9.9	16.3	4.4	16.9
Andhra Pradesh	10.1	17.1	4.2	17.4
Assam	10.4	15.6	2.6	16.1
Uttar Pradesh	11.1	15.7	3.2	16.6
Himachal Pradesh	11.4	18.0	6.7	17.4
Punjab	11.5	20.5	3.0	21.4
Bihar	12.0	17.5	3.3	17.2

1971 was spent working. This percentage has declined to 60.1 per cent in 2001. A major contribution to this decrease is the decline in older men's work participation in the primary sector. Elderly male work participation has shifted from the primary sector to the formal sector, which is a sign of more productivity in the post retirement period. Still, elderly male work participation is predominantly in the primary sector due to a lack of jobs in the formal sector or lack of skills. When it comes to work participation of women over 60, only 10.5 per cent of remaining life expectancy was gainfully used in work participation in 1971 and this increased to 21.1 per cent in 2001. Although female working life expectancy has increased in all sectors, it is still far behind that of males. A possible reason could be underreporting of work participation as most women do unpaid household work.

References

Anand, Kumar, and Anand Navneet (2006). Poverty target programs for the elderly in India with special reference to National Old Age Pension Scheme, 1995. Chronic Poverty Research Centre. Available from www.chronicpoverty.org.

Audinarayana, N. (2001). Factors affecting the work participation of elderly: an empirical investigation. *Demography India*, vol. 30, No. 1, pp. 61-72.

Burtless, Gary, and Joseph F. Quinn (2000). Retirement trends and policies to encourage work among older Americans. Working papers in economics. Boston: Boston College. Available from http://escholarship.bc.edu/econ papers/175.

Government of India (1975). Census of India, 1971. New Delhi: Office of the R.G.

_____ (1984). SRS-based abridged life tables 1970–1975. Occasional papers No. 1. New Delhi: Office of the Registrar General & Census Commissioner.

_____ (1987). Census of India, 1981. New Delhi: Office of the R.G.

_____ (1989). SRS-based abridged life tables 1981–1985. Occasional papers No. 1. New Delhi: Office of the Registrar General & Census Commissioner.

_____ (1996). SRS-based abridged life tables 1989–1993: SRS analytical studies report No. 1. New Delhi: Office of the Registrar General & Census Commissioner.

_____ (1997). Census of India, 1991. New Delhi: Office of the R.G.

_____ (2006). SRS-based abridged life tables 1999–2003. SRS analytical studies report No. 1. New Delhi: Office of the Registrar General & Census Commissioner.

Krishnan, P. (1977). The length of working life: India, 1971. *Journal of the Royal Statististical Society*, Series A, vol. 140, No. 3, pp. 359-365.

Lee, Chulhee (2001). The expected length of male retirement in the United States, 1850-1990. *Journal of Population Economics*, vol. 14 pp. 641-650.

Nurminen, Markku, Christopher Heathcote, and Brett Davis (2005). Working life expectancies of ageing Finnish workers in the municipal sector. *Internet Journal of Epidemiology*, vol 2, No. 1.

Ozcan, Sebnem Kalemli, and David N. Weil (2005). Mortality change, the uncertainty effect, and retirement. NBER Working Paper.

Phang, Hanam S. (2005). Work-fife profiles of Korean workers: life table analysis. Available from www.unpan1.un.org/intradoc/groups/public.

Shoven, J.B. (2007). New age thinking: alternative ways of measuring age, their relationship to labor force participation, Government Policies and GDP. NBER Working Paper.

_____, and G.S. Goda (2008). Adjusting government policies for age inflation. NBER Working Paper 14231.

Siegel, Jacobs, David Swanson, and Henry S. Shryock (2004). Methods and materials of demography". 701-726.Washington:US Census Bureau.

United Nations Economic and Social Council for Asia and the Pacific (2002). National policies and programmes on ageing in Asia and the Pacific: an overview and lessons learned. Social Policy Paper No. 9. Sales No. E.03.II.F.12.

Zweifel, P., S. Felder, and M. Meiers (1999). Ageing of population and health care expenditure: a red herring? *Health Economics*, vol. 8, pp. 485-496.

Page 72 Blank
(no page number)

Guidelines for contributors

Original contributions are invited, especially papers by authors from or familiar with the Asian and Pacific region. Ideally, such papers would discuss the policy and/or programme implications of population issues and solutions to problems, reporting on experiences from which others could benefit.

All material submitted for the consideration of the Editorial Board should be in the English language. Manuscripts should not exceed 6,000 words, including tables, figures, references and other material. Consideration will also be given to shorter technical and policy papers and notes on areas of specific policy interest and value. Manuscripts should include a short abstract (100-200 words) of the issues addressed and the most important policy-related findings. The manuscript should be prepared in one of the major word-processing programs and be double- spaced. The margins should be at least 3 cm (roughly 1 inch) wide, preferably more for the left-hand margin. If possible, please submit the manuscript as an e-mail attachment to the address given below. If e-mail attachment is not possible, send a hard copy (a single-sided print copy on A4-sized paper), together with an e-file of the text on CD-ROM or floppy disc.

A complete list of references arranged alphabetically by author should also be included at the end of the manuscript together with a few keywords. Please refer to examples in any issue of the *Journal* or contact the Editor for a copy of the editorial guidelines. Figures and tables should be supplied separately either as e-mail attachments or in the e-file, preferably in Microsoft® Excel® or any major spreadsheet program.

Manuscripts are accepted on the understanding that they may be edited. Contributors should submit only material that has not previously been published or submitted for publication elsewhere; and they should so state in their covering letter.

A brief introduction about the author(s), including title and affiliations, should also be submitted.

All manuscripts will be submitted to double-blind peer review. The name(s) of the author(s) or other identifying information should therefore be placed only on the title page in order to preserve anonymity.

Manuscripts may be sent by e-mail to the Editor, *APPJ*, at escap-population@un.org; or by airmail post to: Editor, *APPJ*, Social Development Division, ESCAP, United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200, Thailand.

ESCAP is the regional development arm of the United Nations and serves as the main economic and social development centre for the United Nations in Asia and the Pacific. Its mandate is to foster cooperation between its 53 members and 9 associate members. ESCAP provides the strategic link between global and country-level programmes and issues. It supports Governments of countries in the region in consolidating regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalizing world. The ESCAP office is located in Bangkok, Thailand. Please visit the ESCAP website at www.unescap.org for further information.

The shaded areas of the map indicate ESCAP members and associate members.

UNITED NATIONS PUBLICATION
Sales No. E.11.II.F.97

Manufactured in Thailand
ISBN: 978-92-1-120646-3
e-ISBN: 978-92-1-055708-5
ISSN: 0259-238X
ST/ESCAP/2626

Copies of this publication may be obtained from:

Social Development Division
Economic and Social Commission
for Asia and the Pacific (ESCAP)
United Nations Building
Rajadamnern Nok Avenue
Bangkok 10200, Thailand
E-mail: escap-sdd@un.org

Page 76 Blank
(no page number)

Inside Back Cover
Blank

UNITED NATIONS
ESCAP

Published since 1986 by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the *Asia-Pacific Population Journal* (APPJ) brings out high-quality, evidence-based and forward-looking articles on a wide range of population and development issues in Asia and the Pacific.

This issue of the *Asia-Pacific Population Journal* contains the following articles:

ESCAP Asia-Pacific Population Journal Vol. 26 No. 3 September 2011