Actuarial Society of India

13th EAAC, Sept. 2005, Bali, Indonesia

Country Report: India

1. **GEOGRAPHY**

India in its present form of a Nation, as a political jurisdiction, came in to being in 1947 when British left. It comprises of major part territories earlier governed by the British (then called British India) and some independent Kingdoms merged with it later and some territories ruled by France, Portugal and Netherlands amalgamated subsequently. The Union of India comprises of 29 States and 6 Union Territories covering a Geographical area of 3,287,263 sq. kms. The Union Territories are typically smaller than States and are governed by the Central Government with some powers of governance (less than the States) bestowed upon them. The Union (of States) works under a federal constitution (States/Union Territories work under the federal constitution) which bestows powers of governance in key areas to the Central Government and in certain areas to the States and Union Territories, keeping some functions under "concurrent list" meaning thereby the Central Government and States/Union Territories can both legislate. ***The subject of Insurance with which most of the actuaries are occupationally associated is under Central Government, the defining legislation being Insurance, Act 1938.***

Capital: New Delhi

Language/s: Each State and Union Territory has its own state language for its conduct of business, having been organized around a language some years after the creation of Union of India, in 1947. All such languages including some which are not State languages are specified in the federal Constitution. Hindi is common to more than one State/Union Territory**.** All languages, whether specified in the Constitution or not, except Urdu, Tamil and probably Sindhi have originating roots in Sanskrit, the ancient Indian Language of literature and culture. ***The official language of the Union of India is Hindi with English as Affiliate Official language. Across India English is fairly well understood and is in a way business language of India. Some State Governments have English as their official language***

2. DEMOGRAPHY

a. Population

- **Total all population:** 1,028,610,328
- **Population by sex and age:** Males: 532,156,772

Females: 496,453,556

- **Number of work forces:**

	Total workers	Cultivation	Agricultural Labour	Household industry workers	Other workers
Persons	402,234,724	31.7%	26.5%	4.2%	37.6%
Males	275,014,476	31.1%	20.8%	3.2%	44.9%
Females	127,220,248	32.9%	38.9%	6.5%	21.7%

- **Population by activity (1999)**

  Agriculture: 60%,
  Industry: 17%,
  Services: 23%

b. Population growth:

Year ending 31st March	1950-51	1960-61	1980-81	1970-71	1990-91	1999-00	2000-01	2001-02	2002-03	2003-04
Population (million)	359	434	541	679	839	1001	1019	1037	1055	1073
Annual growth	-	1.92%	2.23%	2.30%	2.14%	1.78%	1.80%	1.77%	1.74%	1.71%

Source: http:/indiabudget.nic.in

c. Population mortality:

Year ending 31st March	1950-51	1960-61	1980-81	1970-71	1990-91	1999-00	2000-01	2001-02
Birth Rate (per 1000)	39.9	41.7	41.2	37.2	33.9	26.1	25.4	25.0
Death rate (per 1000)	27.4	22.8	19.0	15.0	12.5	8.7	8.4	8.1

Source: http:/indiabudget.nic.in

d. Life expectancy (years):

Year ending 31st March.	1950-51	1960-61	1980-81	1970-71	1990-91	1999-00	2000-01
Males	32.5	41.9	46.4	50.9	58.6	-	63.87
Females	31.7	40.6	44.7	50.0	59.0	-	66.91

Source: http:/indiabudget.nic.in

e. **Fertility rate:** 2.85 children born/woman (2004 estimate)

3. Economy

a. GNP & GDP

Year ending 31st March	GDP (Rs. crore)	GNP (Rupees)
2003-04	2519785	11799
2002-03	2254888	11013
2001-02	2081474	10754
2000-01	1902999	10308
1999-00	1761838	10071

Source: http:/indiabudget.nic.in

b. Exchange rate

Indian rupees against US dollar

Date	Exchange Rate (1$= ?INR)
31st March, 2005	43.7500
31st March, 2004	43.3900
31st March, 2003	47.5000

Source: www.rbi.org.in

c. Balance of payment (In Rupees Crore = 10 million)

Year	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Overall Balance	16653	18245	27770	27662	56592	82016	143925

Source: www.rbi.org.in

d. Inflation rate

Headline inflation is measured by year-on-year changes in the Wholesale Price Index (WPI), whereas the consumer price inflation is measured by year-on-year changes variation in the Consumer Price Index (CPI) for industrial workers (CPI-IW).

Year	1950-51	1960-61	1970-71	1980-81	1990-91	1999-00	2000-01	2001-02	2002-03	2003-04
Wholesale Price Index	6.8	7.9	14.3	36.8	73.7	145.3	155.7	161.3	166.8	175.9
% change per annum	-	1.6%	6.1%	9.9%	7.2%	7.0%	7.2%	3.6%	3.4%	5.5%
Consumer Price Index	17	21	38	81	193	428	444	463	482	500
% change per annum	-	2.1%	6.1%	7.9%	9.1%	8.3%	3.7%	4.3%	4.1%	3.7%

Source: www.rbi.org.in

e. **Yield rate/coupon rate** (YTM (semi-annualised)

Years	1	2	3	4	5	7	8	9	10	15	20
31-3-2005	5.53%	5.88%	6.10%	6.33%	6.37%	6.52%	6.58%	6.71%	6.68%	7.06%	7.11%
31-3-2004	4.35%	4.50%	4.62%	4.69%	4.78%	5.05%	5.10%	5.16%	5.16%	5.63%	5.86%
31-3-2003	5.67%	5.78%	5.83%	5.89%	5.94%	6.19%	6.29%	6.19%	6.21%	6.68%	6.76%
30-3-2002	6.04%	6.20%	6.33%	6.40%	6.53%	6.97%	7.20%	7.23%	7.36%	7.51%	7.91%
31-8-2001	7.08%	7.18%	7.28%	7.35%	7.64%	8.32%	8.90%	9.03%	9.17%	9.88%	9.95%

Source: Fixed Income money market and derivatives Association of India (FIMMDA)

4. Insurance Industry

a. Developments

The Insurance industry in the shape in which world understands now, came to India along with British rule. Much that happened in the UK was replicated in some form though with some time lag and the first legislation was Indian Life Assurance Act, 1912 covering life insurance. First comprehensive legislation covering all forms of insurance was the Insurance, Act 1938, which still, with amendments, is the “mother Act” for India, Pakistan and Bangladesh, the present day nations born out of British (and some other) territories, in 1947.

Many nations which had sprung bout of colonial rulers ceasing to rule in the mid 20th century were attracted towards communism/socialism as a political philosophy of governance and India was affected too. As a pursuit of Socialism through state control of the economy, the life insurance industry was put under state control of the Central Government (nationallisation) in 1956 followed by such action for general insurance in 1972. This was done by the Central Government taking over life insurance business under one entity called Life Insurance Corporation of India and general insurance business under General Insurance Corporation of India with four subsidiaries functioning under it.

With passage of time and socialism not being able to deliver means to meet expectations of India, in 1993 the Government set up a Committee (the Malhotra Committee on Insurance business reforms) to examine opening up of the insurance industry to private sector participation. The Malhotra Committee report in Jan. 2004, lead ultimately to legislation of Insurance Regulatory and Development Authority Act, 1999 (the IRDA Act) which opened up the insurance industry for private sector participation in year, 2000. While no foreign insurance company is allowed to directly transact insurance business, the law allows Foreign companies to set up Joint Ventures with Indian Companies subject to the condition that the foreign company share capital shall not exceed 26%. As a consequence, the Sector

has since witnessed a surge in insurance activity. Currently, there are 14 life insurance and 12 general insurance companies.
A phenomenon witnessed with the entry of private players in the market is the product, vision and ability of insurers to discern the requirements of various sections of the population and design products to suit their needs.
Life insurance, by 31st March, 2004 had around 370 life products in the market. While it is possible for overlap of products between the insurers, the packaging, however, is different and thus, offers a wide range of choice to the customer.

The developments in **general insurance** has shown, since y 2000 increase in premium volume and also variety of coverages available. As against the business philosophy of the four State owned general insurers (earlier subsidiaries of the General Insurance Corporation of India) to provide covers to all, the private sector payers have tend to be selective, atleast for some classes of business such as Motor.

Health insurance industry is still in its infancy in India, there being no stand-alone health insurers. This is inspite of the fact that the insurance law and IRDA regulations do allow some form of preferential treatment to health insurers at the stage of entry. Currently all the stand-alone health products are marketed by general insurers and some riders by life insurers. The potential is large though, reflecting the size but not as much, of the country. According to the WHO, in 2001 the total health expenditure of India as a percentage of the GDP was 4.9% of which the government paid only 0.9%. A significant proportion of the total health expenditure is met as out-of-pocket expenses by individuals.

Taxation of Insurance Business
Life insurance business is taxed on actuarial surplus, as disclosed by the statutory valuation basis, whereas general insurance business is taxed as any other corporate entity.
The Income Tax rules do not allow carry forward of losses.

Distribution of Surplus in Life Insurance
The legislative provisions regarding distribution of surplus stipulate that, in the case of participating business, the share of any surplus allocated to or reserved for shareholders shall not exceed 10% of the distributed surplus with not less than 90% going to the policyholders; in the case of non-participating business surplus up to 100% is allowable to shareholders.

b. Number of insurance companies

i. **Life**:

State owned:	1
Private Sector:	13
Government Department owned (Postal Life)	1

ii. **General Insurance (Non-Life):**

State owned Direct writing company:	4
State owned Reinsurer	1
Private Sector:	8

iii. **Others;**

Mutual: Not allowed

Specialist: – Export Credit	1
Agricultural Insurance	1

c. **Range of products**

Individual Insurance

The Insurance Industry was nationalised in 1956. The state-owned insurer, Life Insurance Corporation of India (LIC), therefore, enjoyed monopoly privileges for 44 years until the industry was liberalized in October, 2000. During this period, the product choice was relatively limited. The most popular life products were mainly savings-oriented plans such as regular premium *with-profits endowments* with terms of 10, 15, 20 or 25 years, or polices providing anticipated benefits at regular intervals, commonly known as "money-back " plans. Although *non-profit products* were also available, these never proved to be popular. In the pensions area, LIC offered some *immediate and deferred annuity products.*

The opening of the life insurance sector in October 2000 flooded the market with many more products. Instead of offering traditional with-profits products, a few companies strategically concentrated efforts on selling *non-participating products*. Companies now offer the unbundled *universal life* concept as a vehicle for their major products together with a choice of several funds, as also *unit-linked and unitized wit-profits products*. Besides promoting and marketing unit-linked products the focus has also shifted to marketing a limited number of stand-alone products with a wide range of add-ons by way of "rider benefits". Presently, the *different types of riders* offered in the market include accidental death (ADB) and dismemberment (ADD-long scale or short scale), critical illness (CI) either as an additional or an accelerated benefit, fixed premium level term, payor benefit rider, 5-year renewable and convertible term, term to age 60, waiver of premium due to accident or accident and sickness, group hospital and surgical benefit rider, group total and permanent disability rider, income benefit rider, start of life benefit rider, major surgical benefit rider, hospital daily cash benefit rider etc. *long-term term assurance products* is also presently being offered by all the insurance companies.

Group Insurance

In group insurance, traditionally, pure term has been popular among employer- employee groups, affiliate groups and creditor-debtor groups. However, maximum coverage amounts were maintained at a low level to avoid competing indirectly with individual life coverage. As in the case of individual business, the most popular type of group product was a term plan with a savings element, named Group Savings Linked Insurance (GSLI). LIC also offered a Group Superannuation Scheme to provide annuity payment to scheme members. Group plans were further designed and offered to employer-employee groups where the employer had to provide statutory benefits under service conditions such as Group Gratuity and Group Leave Encashment Schemes.

The private players have introduced unit-linked variations of the Group Gratuity product as well as Group Superannuation products. Post-privatisation, the group business has also witnessed a sea change in terms of available coverage types and options. For example, a new option is the conversion option that allows the conversion of group life coverage into an individual policy, on leaving the service of the employer, without undergoing fresh medical examination. Group Credit life products have been well received by the market, as also has depositors insurance whereby depositors of financial institutions can obtain cover.

d. Experience Mortality & Morbidity

The current standard assurance and annuitant mortality table are known as Indian Assured Lives Mortality (1994-96) (modified) ultimate table and LIC (a) (96-98) respectively. While this is based on LIC's experience, the tables are currently being used by other companies also since their own experience is still scanty to be used for the purpose of building their own experience tables. With a view to track, analyse and monitor data on mortality and morbidity, a Mortality and Morbidity Investigation Bureau (MMIB) – on the lines of the Continuous Mortality Investigation (CMI) Bureau in the UK - has been set up. The Bureau is expected to provide all insurance companies with the technical basis to design and price more complex products in the future. ***The Actuarial Society of India along with the life insurance industry is in the process of setting up a bureau called Mortality and Morbidity Investigation Bureau (the MMIB) in technical co-operation with the CMIB of UK Actuarial Profession.***

e. Growth of business in force

Life Business

Renewal Premium (Rupees in Million)

Insurer	2001-02	2002-03	2003-04
State Owned	302331	386517	461783
Private sector	40	1534	6796
Total	302372	388051	468579

Non-Life Business

Premium (Rupees in Million)

Line of Business	2001-02	2002-03	2003-04
Fire	29290	32680	34579
Marine	87039	107037	114741
Misc	10898	12651	24252
Total	127227	152368	173572

Source: IRDA Annual Report 2003-04

f. Growth in premium income/ New Business

Life Business

Total Premium (Rupees in Million)

Insurer	2001-02	2002-03	2003-04
State Owned	498219	546285	631676
Private Sector	2725	11191	31203
Total	500944	557476	662879

Number of Policies underwritten

Insurer	2002-03	2003-04
State Owned	24545580	26968069
Private Sector	825094	1658847
Total	25370674	28626916

Non-Life Business

Number of Policies underwritten

Insurer	2002-03	2003-04
State Owned	41885005	44452070
Private Sector	1676907	3111114
Total	43561912	47563184

Source: IRDA Annual Report 2003-04

g. Cost realization

Expenses of Life Insurers

Operating Expenses of Life Insurers (in Rupees Million)

Insurer	2001-02	2002-03	2003-04
State Owned	42604	45718	51865
Private Sector	4194	8383	14024
Total	46798	54101	65889

Commission expenses of Life Insurers (in Rupees Million)

Insurer	2001-02	2002-03	2003-04
State Owned	45193	50151	57429
Private Sector	491	1530	4154
Total	45684	51681	61583

Source: IRDA Annual Report 2003-04

The major head for the life insurers is commission. As against the industry average of 24.79%, the state owned life insurer (LIC) incurred an expense of 25.89% towards commission on first year premium where as for the private sector companies it was 18.47%. In respect of renewal premium, the commissions paid by the private sector companies was 4.97% as against LIC's 5.78%.

As expected, the operating expenses of the new insurers is fairly high given the initial strain of establishing operations. For the year 2003-04 it was 44.94% of the gross premium underwritten. Although, the operating expenses increased by 67% over the previous year, as a percentage of the premium underwritten there was a decline of 75% in the year 2002-03. In the case of LIC, the operating expenses in 2003-04 grew by 13.45% over the previous year.

Expenses of Non-Life Insurers

Commission Expenses: (Public Sector) Rupees (in Million)

Line of Business	2001-02	2002-03	2003-04
Fire	955	1434	1698
Marine	227	343	522
Misc	5392	7580	8703
Total	6574	9357	10923

Source: IRDA Annual Report 2003-04

In respect of public-sector insurers, management expenses exhibited a sharp increase on account of the Voluntary Retirement Scheme introduced to bring down the staff strength and to streamline the management structures. For some of the new insurers 2003-04 was the fourth year of operations. Given that the insurers are in the process if establishing their operations, the expenses of management expenses as a percent of premium underwritten are high. The major expense heads comprise employee remuneration, legal & professional charges, technical charges, business promotion charges, rent rates and taxes and depreciation.

h. Sales force/ Channel distribution

Prior to the opening up of the insurance sector in 2000, the agency channel was the only channel catering to the needs of the market. However, there was a general feeling that there were both demand side and supply side gaps in the agency channel. The regulations have now introduced composite agency enabling agents to do both Life and Non-Life business. The Regulations also allow Corporate Agents and Broker channels also to sell insurance business. Many insurers have tied up with banks to increase their spread. Some companies have also started using Direct Marketing through internet, mail shots, telephone selling etc.

Looking ahead, possible changes in the distribution model is likely to include the introduction of non-tied agents with the right to sell products from various insurers. Additionally, the bancassurance channel is likely to increase its share of total life insurance premium due to administrative efficiency and lower cost of distribution. Third Party Administrators will continue to expand operations, as they remain cost efficient alternatives in administering certain insurance tasks, such as pre-policy checkups, or entire lines of business, such as healthcare. Lastly, one key trend would be an increasing focus on the untapped rural markets. As metropolitan and then urban markets become saturated, companies will start evolving specific delivery models for the rural market and would start treating rural insurance as a viable line of business in its own right. Initial forays in this direction include leveraging off the rural distribution of the large public sector bancassurance, the Post Office network, Non-Government Organisations and self-help Groups.

5. The Actuarial Profession

a. Foundation

The Actuarial Society of India (ASI) is the sole Professional body of actuaries in India. It was formed in September, 1944 and was registered as a Society in 1982 under Act XXI of 1860 registration of Literary, Scientific and Charitable Societies. ASI is a member of the International Actuarial Association.

The ASI was initially started as a non-examining body when Actuaries used to get qualified for Institute of Actuaries, London or Faculty of Actuaries in Scotland. However, the actuarial profession in India saw a downward trend in the early years of nationalization of the Indian insurance industry. This led to a reduction of actuarial inputs in both Life insurance and General insurance management and insignificant input in other areas such as Pensions, insurance regulations and academics.

ASI started conducting examinations for entrance of the Institute of Actuaries, London in 1975. In 1989, the society stared conducting examinations for its Indian qualification up to the Associateship level and in 1992 it started conducting Fellowship level exams as well. Fellowship (FASI) of the ASI is the sole recognized actuarial qualification for the insurance regulation under Insurance Act, 1938 and IRDA regulations.

The Actuarial Society is located at, however by July 2005 it is expected to shift to a new and much larger space.:

9, Jeevan Udyog,
278, Dr. D N Road,
MUMBAI – 400 001, INDIA
Tel: +91 – 22- 2200 6794 / 2203 6040
Fax: +91 –22 – 2207 4587
e-mail : actsoc@vsnl.com
website: www.actuariesindia.org

b. Number of members

As at 31st March, 2005 ASI has 3,868 members.

- Fellow	202
- Hon. Fellow	6
- Associate	136
- Affiliate	16
- Student	3,508

c. Professional activities

The ASI works through number of Boards and Committees such as;

The Professional Affairs Board (PAB) of the ASI manages the professional activities of the Society. These activities include conducting *Continuous Professional Development* seminars (CPDs) on relevant topics of current interest to maintain, improve and broaden actuarial knowledge and skill amongst members and aid in the development of personal qualities necessary for the execution of professional and associated technical duties throughout the actuary's working life. The PAB *issues Guidance Notes* applicable to actuaries working in different areas of practice. These Guidance Notes help actuaries to maintain good standards and bring echelon to the profession. In addition the PAB lays down *Professional Conduct Standard*s and monitor its *compliance*. The PAB is also responsible for the *issuance of Certificate of Practice (CoP)*, which is a requirement in order to be able to function as an Appointed Actuary.

The International Relations Board (IRB) is active is in the area of *mutual recognition* with other internationally recognized professional actuarial bodies. Currently, the Society has mutual recognition arrangement with both the Institute and Faculty of Actuaries as well as the Institute of Actuaries of Australia.

Since 1998, the ASI has been *conducting Global Conference of Actuaries* on an annual basis to promote the globalization of the actuarial profession.

In addition, the Society plays an active role in *considering, discussing and commenting on actuarial aspects of legislation, regulations, insurance laws etc*. and *maintaining relation with other professional bodies such as the Institute of Chartered Accountants of India.*

The Education Board

The Education Board looks after the Educational activities of the Society. Besides *conducting examinations*, the Education board *holds examiners seminars* to keep its team of examiners updated on the requirements and standards to be maintained. The Board also arranges for the *supply of tuition material* to student members. The Examinations of ASI are mutually exempt with the examinations of the UK Actuarial profession up to the last but one level and with the IAAust up to foundation (core Technical) level. The ASI in respect of education and examination is compliant of the standards set by IAA effective y 2005. ***The ASI admits students from across the globe and its membership is not limited Indian nationals. As an act of deliberate philosophy it educated actuaries in global and business context.***

d. Regulatory role of the Actuary

The IRDA Regulations require all companies carrying on insurance business in India to appoint an Appointed Actuary (AA) who is responsible for the immediate and continuing of the company and its continuing viability, while safeguarding the reasonable benefit expectations of its policyholders. In the area of general insurance the role of the appointed actuary is limited to the certification of IBNR reserves and pricing of products under in-house non-tariff business before launch into the market. The Appointed Actuaries are subject to various Guidance Notes issued by ASI in discharging their duties as actuarial professionals.

To be an Appointed Actuary, a person should be a Fellow of the Actuarial Society of India, ordinarily resident in India and should possess a certificate of Practice (CoP) issued by the Actuarial Society of India. For Life Insurance, the AA should be an employee of the company, whereas for general insurer the AA could be an employee or an independent consultant.

e. Other actuarial professions involved in areas

ASI is the sole professional body of actuaries in India.

f. Future prospect for the actuarial profession

Traditionally, actuaries have been active only in life Insurance and in the area of retirement and employee benefits. However since y 2000 there are actuaries involved in general insurance either as AAs or as consultants.

6. Regulations relating to insurance business

a. Pricing

Every new product requires the prior approval of the Regulator. Detailed information of the product features, pricing basis adopted, results of financial projections is furnished in the *File & Use application* together with the publicity material, policy document and the proposal form. Each File & Use Application is to be certified by the Appointed Actuary and signed off by the Principal Officer of the company. The Regulator may require changes to be made to the product if the product is deemed to be unsuitable or the publicity material is found to be misleading.

b. Reserving

The regulation governing the valuation prescribes the use of the "Gross Premium Method" to value contracts. The method requires all future cashflows in respect of a policy to be projected and discounted at an appropriate discount rate. The projection assumptions are based on the insurer's expected experience and should include an appropriate Margin for Adverse Deviations (MAD). The projected benefits take into account the reasonable expectations of policyholders (with regard to bonuses including terminal bonuses, if any) and the established practices of the insurer for payment of benefits. The determination of mathematical reserves should take into account the nature and term of the assets representing those liabilities. In particular, the valuation rate of interest used by the Appointed Actuary shall not be higher than the rate of interest determined from a prudent assessment of the yield from the existing assets backing the relevant block of business. Since the gross premium recognizes all future premium income, separate deferral of acquisition costs has not been prescribed; acquisition costs are to be expensed in the period during which they are incurred. The reserves are also subject to minimum floor of the guaranteed surrender value. In unit-linked products cannot be less that the fund value and the non-unit reserves cannot be negative. Alternative methods may be used provided the resulting reserves are at least equal to those produced using the prescribed method.

Solvency Margin requirement for life insurers has 3 components, namely the aggregate of specified percentages of:

- the mathematical reserves
- the Sum at risk and
- the value of non-mandated investments.

Solvency margin is subject to a minimum of Rs.500 million.

Currently, Risk Based Capital (RBC) is not used to determine solvency.

In addition, the Regulator requires insurance companies to maintain solvency margins at 150% level of the prescribed minimum. The assets for the purpose of demonstrating solvency are subject to admissibility limits.

The Appointed Actuary carrying the valuation of insurance business is subject to professional guidance issued by the ASI covering including Financial Condition Report and Peer Review.

c. Future prospect

In the area of pricing, the next decade could see a change in the regulatory approach to product approval – from a prospective approach to a retrospective approach – as the regulator develops a higher degree of market knowledge and comfort with the local business practices. This would imply a shorter time to market for new products, with post-facto regulatory approval and scrutiny. The increase in self-regulation would, however, need to be supported by a strong guidance and professional practice recommendations developed and implemented by the industry associations under the guidance of the ASI or the Life Insurance Council.

In line with the developments in other Asian Markets, Solvency of Life Insurance companies may be determined based on Risk Based Capital in future.

The Insurance Act 1938 was reviewed by the Law Commission of India some two years back and recently the Government has taken up steps to initiate process to put in a comprehensive legislation. A committee under Chairmanship of Mr. K P Narasimhan, FIA; FASI has been commissioned by the IRDA under advice of the Government to give expert opinion on certain specified aspects including an overall view of the amendments needed. Current president of ASI, Mr. Liyaquat Khan and two other Fellow members of ASI constitute this 11 member Committee, which is expected to submit its report by end of July, 2005.

10 06 2005