GYANA

AN INTERDISCIPLINARY RESEARCH JOURNAL

Vol. II No 2 2006-07

Its Vision : An Educative Community Marked By Justice, Cooperation And Integrity.

Its Mission: To Empower Young Women And Men Specially The Underprivileged As Responsive Citizens Through Holistic Education.

From Editor's Desk

Yes! We have made it once again. The second edition of GYANA is out. We are extremely happy that we have been true to our commitment, namely, to bring out at the end of the academic year a journal containing researched articles contributed by our multi-disciplinary faculty.

As a matter of fact, a new feature that adds value to GYANA is the contribution of our students whose researched articles are also included in this volume. This assumes great significance in the context of NAAC having declared the year 2006 as *Year of Student Participation in Quality Assurance.*

The Prime Minister, Dr. Manmohan Singh, in his recent address to CSIR Society, observed that "scientific enterprise and research activity should be rooted in the University system. The centre of gravity of science and research in India has to move back closer to Universities".

The National Knowledge Commission, headed by Dr. Sam Pitroda, has also reiterated the need to revamp the higher education system and to promote research.

It gives me great satisfaction that the Research and Development Cell of the College is moving in this direction by promoting research programmes, and is bent upon to attract not only teachers but also students into the research field.

We hope our efforts will yield the desired results.

Dr. (Fr.) Walter de Sa
Principal

SOCIAL DOCTRINE OF THE CHURCH

Dr. (Fr) Walter de Sa
Department of Sociology

In this article the writer makes an attempt to expound and understand the social doctrine of the Church enshrined in the papal documents right from Rerum Novarum to Centesimus Annus.

The Dogmatic Constitution *Lumen Gentium* (LG) [The Light of Humanity], brought out by the Vatican Council II in 1964, traces the origin of the Church in the following words:

The one mediator, Christ, established and ever sustains here on earth his Holy Church, the community of faith, hope and charity, as a visible organization through which he communicates truth and grace to all men' (LG : 8). Thus, the Church is called to follow the path of Jesus in carrying out the work of liberating those in poverty and oppression.

The Pastoral Constitution on the Church in the Modern World *Gaudium et Spes* (GS) (1965) [The Joy and Hope], also issued by the Vatican Council II, in its preface, expresses in unequivocal terms, its solidarity and concern with the whole human family. It says 'The joys and hopes, the griefs and anxieties of the men of this age, especially those who are poor or in any way afflicted, these too are the joys and hopes, the griefs and anxieties of the followers of Christ' (GS : 1).

Pope Leo XIII, who succeeded Pope Pius IX after the latter's death in 1878, takes the credit for being the first Pope in the latter half of the 19th century to formulate and teach the social doctrine of the Church. Prior to his papacy, as Bishop, he had to confront complex issues which led him to write pastoral letters on prerogatives of the Pope, the sacrament of marriage, the current condition of the Church, and the social and economic conditions of the people of his diocese. Incidentally, he was also instrumental in establishing agricultural co-operatives. He brought to his new position vast practical experience and practical knowledge. He advocated that the Church and society could work together towards the welfare of all.

RERUM NOVARUM (RN) [New Things]

The Industrial Revolution (1760-1840) caused a great havoc across Europe in all fronts, political, social and economic. It brought misery to the newly emergent class of proletariat (Hazen 1968 : 260-61). The Church's concerned response culminated in the promulgation on 15th May 1891 of the encyclical letter *Rerum Novarum* (RN) [New Things] by Leo XIII.

The *Rerum Novarum* (RN), the first ever major social document of the Church, which was hailed as the *Magna Carta*, on the conditions of workers, takes cognizance of various social problems, *inter alia*, the strained relations between masters and workmen, the enormous fortunes of few and the utter poverty of the masses (RN: I). As such, the Church, in a gesture of solicitude, desired that the poor 'should rise above poverty and wretchedness, and better their condition in life' (RN: 23).

Through her direct intervention on behalf of the poor, the Church established and maintained religious congregations, and many other useful organisations and societies for mutual help (Confraternities, Benefit and Insurance Societies, Working-men's Unions), 'to provide for the workman and for his widow or his orphans, in case of sudden calamity, in sickness, and in the event of death; and institutions for the welfare of boys and girls, young people and those more advanced in years'(RN:36). Commenting on RN, Desrochers (1992:70) wrote: 'The Pope's message on living and just wages and on more human conditions of work as well as his defence of children and women, undoubtedly constituted a step forward.'

QUADRAGESIMO ANNO (QA) [Fortieth Anniversary]

To mark the fortieth anniversary of the publication of *Rerum Novarum* of Leo XIII, another encyclical named *Quadragesimo Anno* (QA) [Fortieth Anniversary], was promulgated by Pope Pius XI in 1931. It not only confirmed the social teachings of its predecessor, but also extended it to address the new situations that had arisen during the interval of forty years.

In *Quadragesimo Anno*, Pius XI provided an orientation to work out and seek the reformation and the reconstruction of the social order, i.e. social institutions and the improvement of conduct through social justice and social charity. He upheld the principles of just wages and just distribution: 'Wealth, therefore, which is constantly being augmented by social and economic progress, must be so distributed amongst

the various individuals and classes of society, that the needs of all... be thereby satisfied' (QA:57). According to him, wages are to be so regulated and fixed 'as to offer to as many as possible opportunities of employment, and of securing for themselves suitable means of livelihood' (QA: 74).

Pius XI made it very clear that the State 'must have special regard for the weak and the needy... wage-earners should be specially cared for and protected by the government' (QA:25). He viewed the contribution of the Church through the works of beneficence and charity undertaken by various associations. Thomas C. Kohler (1993:41), who studied QA, offered the following comment: 'Everything that touches upon the well-being of the person is of interest to the Church. It seeks to protect and promote the full development of human potential.'

MATER ET MAGISTRA (MM) (Mother and Teacher]

The social teachings of the Church which were promulgated in 1960s surpassed the earlier ones. Pope John XXIII and his successors, namely, Paul VI and John Paul II, taught authoritatively the stand of the Church concerning societal issues. John XXIII who was the Pontiff from 1958 to 1963, promulgated in 1961 a very important social document titled *Mater et Magistra* (MM) [Mother and Teacher]. This document addressed the contemporary social questions in the light of Christian teaching. While *Mater et Magistra* was the last of the papal encyclicals to be addressed solely to the Catholic faithful, John XXIII wrote another social encyclical *Pacem in Terris* (PT) [Peace on Earth], just prior to his death, addressed to 'all men of good will.'

John XXIII took note of the new and serious problems of his times. He viewed several changes taking place not only in the social and political fields, but also the fields of science, technology and economics (MM:47). As a result of these changes, mutual relationship and interdependence of peoples had increased, leading to the formation of organisations and institutes at national and international levels. To this socialisation he attached great significance. As such, public authorities and social organisations intervened in areas such as the health care, the instruction and education of youth, the choice of a career, the ways and means of rehabilitating or assiting those handicapped mentally or physically (MM:59-60).

John XXIII decried excessive imbalances existing between the economically advanced nations enjoying the luxuries of life, and the developing ones experiencing dire poverty. He appealed to the affluent nations not to overlook the sad plight of poorer nations where people are overcome by extreme poverty and hunger, and are

not able to enjoy basic human rights. In order to minimize this problem, he pointed out the responsibility of the respective governments to bring about a just distribution of wealth (MM:157). In such circumstances, he attempted to arouse a sense of responsibility in individuals, and particularly those nations more blessed with this world's goods (MM: 158). In a very special way, he drew the attention of Catholics to their duty towards the poor and unfortunate. He wrote: 'It is proper that the duty of helping the poor and unfortunate should especially stir catholics...' (MM: I 59).
He further asserted that the richer countries having surpluses in foodstuffs, particularly of farm products, must share with those in need as demanded by justice and humanity (MM: 161). As a way to combat poverty, he proposed that citizens be fully trained and instructed in necessary skills, and in carrying out their responsibilities (MM:163). For this purpose, he looked with great hope to councils and assemblies, national or international, as well as to private enterprises and societies to generously lend aid to poorer countries, so that they can stand on their own. He favoured as many youths as possible to study in the universities of more advanced countries to acquire a knowledge of the arts and sciences (MM: 165).

Commenting on *Mater et Magistra*, Lobo (1993:83) writes: 'In his famous encyclical *Mater et Magistra*, 1961, John XXIII shows sensitivity to the changed conditions of today's world. He does not use the language of human rights, but wants the 'goods and services for a better life,' 'the advantages of more human way of existence,' and 'social security' to be available for 'as many persons as possible.'

PACEM IN TERRIS (PT) [Peace on Earth]

Pacem In Terris (PT) [Peace on Earth] is another social document issued by John XXIII on 11 April, 1963. Its thrust is the human person endowed with intelligence and freewill, with rights and duties. John XXIII makes a list of human rights a person is entitled to, among which the right to live and a worthy standard of living is affirmed. From this right flows another one. He stated: 'In consequence, he has the right to be looked after in the event of ill-health, overwork, widowhood, old age, enforced unemployment or when through no fault of his own he is deprived of the means of livelihood' (PT: 11). The human rights which are universal, inviolable and inalienable are based on human dignity for all men, states John XXIII, are equal in natural dignity (PT:44). Rights and duties are mutual and reciprocal between persons. He lent support to the Universal Declaration of Human Rights (UDHR), labelling it as positive and humanitarian. It is pertinent here to reproduce Art.25, para I of Universal Declaration of Human Rights (1948): 'Everyone has the right to a

standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.'

In PT, John XXIII established the need of State for the attainment of the common good (PT: 54). By common good, he meant 'all those social conditions which favour the full development of human personality' (PT:58). He laid serious responsibility on State with respect to the weaker section of society in the following words: 'Nevertheless, considerations of justice and equity can at times demand that those in power pay more attention to the weaker members or society, seeing that these are at a disadvantage when it comes to defending their own rights and asserting their legitimate interests' (PT:56).

George Weigel (1993:70) finds in PT a novel element, namely, that 'Pope John believed that the world had entered a new moment in history, characterised by "the conviction that all men are equal by reason of their natural dignity."' O'Brien and Shannon (1977:121) observed that the Pope by listing out the human rights, set out a major social agenda, and also provided an orientation to many issues of concern to him. Praising PT, Joseph Gremillion, a Catholic thinker, wrote thus: 'Pacem In Terris should be remembered first as a papal declaration of human dignity and rights, then as a program for world peace. It echoes most of the rights stated in the U.N. Declaration fifteen years before and balances these with respective duties' (Desrochers 1992:129).

GAUDIUM ET SPES (GS) [The Joy and Hope]

When Pope John XXIII wrote *Pacem in Terris*, the Second Vatican Council (1962-65) was already in session. Being aware of the profound changes witnessed around the world, and acknowledging the need for a better pastoral orientation to social issues, John XXIII exhorted the Council to make service to mankind the preoccupation of the Church, so that the presence of the Church may be felt by one and all.

After going through a laborious process of reflection and study of the modern world, the Council published a pastoral constitution on the Church in the modern world, entitled *Gaudium et Spes* (1965). The crux of this document, which contains social doctrine of the Church, is the person, the human being endowed with **freedom**. It

acknowledges that individuals are by nature social beings, inter-related and inter-dependent. It calls for a healthy respect for the equal dignity of all human beings.

This document regards the entire mankind as one big human family that requires to be renewed (GS: 3), since it is afflicted by socio-economic and political problems requiring immediate and urgent attention not only from the Church and civil authorities, but also from every individual as a member of society. Exalting the sublime dignity of the human person, the Council states that man is and he ought to be 'the beginning, the subject and the goal of all social institutions' (GS:25); and since there is interdependence between personal development and that of society based on the social nature of man, he is 'the source, the focus and the end of all economic and social life' (GS: 63) . Therefore, he must have ready access to everything he is in need of to live a genuinely human life: like food, clothing, housing, the right to education, to respect, to proper knowledge, etc. (GS: 26). The Council emphatically reminds of one's inescapable duty towards the needy or the poor man, whether he is an aged person abandoned by all, a foreign worker despised without reason, an illegitimate child, or a starving human being (GS:27).

The Council takes note of the emergence of new humanism where 'man is defined first of all by his responsibility toward his brothers and toward history' (GS:55). It also entrusts responsibility to 'public and private organisations to be at the service of the dignity and destiny of man... to banish every vestige of social and political slavery and to safeguard basic human rights under every political system' (GS:29).

The Council regrets that, in spite of the economic progress, huge numbers of people are still found deprived of the absolute necessities of life, having to live and work in conditions unworthy of human beings. In furtherance of human welfare, it reminds all citizens that 'they have the right and the duty to contribute according to their ability to the genuine progress of their own community'(GS:65).

For O'Brien and Shannon (1977: 174), this conciliar document is 'a strong affirmation that the Christian community is truly and internally linked with humanity and its history;' and in the words of Desrochers (1992:148), 'GS warmly welcomes modern man's aspirations towards human dignity, brotherhood, participation, freedom and equality. It similarly encourages the social movements that embody these legitimate aspirations.'

POPULORUM PROGRESSIO (PP) [The Development of Peoples]

Pope Paul VI, who succeeded Pope John XXIII, was seized of the trends emerging out of the Second Vatican Council, and he committed himself to steer the Church in the direction laid down by the Council. In 1967 he promulgated an encyclical letter *Populorum Progressio* (PP) [The Development of Peoples], which he addressed, following the tradition of his predecessor, John XXIII, not only to the Bishops, Priests, Religious and the faithful of the whole Catholic World, but also to all human beings of good will.

Paul VI, in PP, offers a Christian perspective of development that promotes the good of every man and of the whole man, with body and soul, heart and conscience, mind and will. He warns that development cannot be limited to mere economic growth (PP:14). His primary concern is the development of those peoples suffering from hunger, misery, endemic diseases and ignorance; of those looking for a wider share in the benefits of civilisation and a more active improvement of their human qualities (PP:1). He condemns modern economics which widens the differences between the rich and the poor, often living and working in conditions unfit for human beings. He also points out the scandal of glaring inequalities not merely in the enjoyment of possessions, but even more the exercise of power (PP:8-9). For Paul VI, any developmental activity or programme be it of individuals or be it of intermediary bodies, has no other *raison d'être* than the service of man. Such programmes help reduce inequalities, fight discriminations, free man from servitude and enable him to be the instrument of his own material, moral and spiritual progress (PP:34).

Paul VI views 'authentic development' as a transition from less human conditions to those which are more human. According to him, less human conditions are: lack of material necessities, oppressive social structures, and the moral deficiencies. Conditions that are more human are, *inter alia*, liberation from misery and deprivations, victory over social scourges, the growth of knowledge, the acquisition of culture, increased esteem for the dignity of others, cooperation for the common good, will and desire for peace, and the acknowledgement by man of supreme values, and of God as their source and their finality (PP:21). For him, the attainment of development is possible through education. In his message to U.N.E.S.C.O. Congress in 1965, at Teheran, he argued that education is a 'privileged instrument of economic progress and of development' (PP:35).

Paul VI, who was the first ever Pope to visit Mumbai (India), in December 1964, proposed the creation of a World Fund, 'to be made up of part of the money spent on arms,' and to be used 'to relieve the most destitute of this world' (PP:51). While he

denounced the wasteful expenditures as an intolerable scandal, he favoured that schools, hospitals and homes be built out of the World Fund (PP:53). Similarly, he underlined a threefold aspect of duty of better-off nations towards mankind:

1. the duty of human solidarity, i.e. the aid that the rich nations must give to developing countries;

2. the duty of social justice, i.e. the rectification of inequitable trade relations between powerful and weak nations;

3. the duty of universal charity, i.e. the effort to create a more human world where all will be able to give and receive, without one nation making progress at the expense of the other (PP:44).

It is worth noting that Paul VI supported the campaign against hunger by Food and Agriculture Organisation (FAO). Similarly, he extended support to *Caritas Internationalis,* and other organizations for their assistance to those who are in want (PP:46). However, he makes it clear that funds alone cannot suffice, meaning thereby that one has to go much more beyond eliminating or reducing hunger and poverty. This task, for him, is the building of a world where every human being, irrespective of race, religion or nationality, can live a fully human life (PP:47).

O'Brien and Shannon (1977:308) view *Poplilorum Progressio* as the most radical of the papal pronouncements on social issues. For John Desrochers (1 992: 1 74 and 177), PP provides 'a fuller vision of human development,' and it presents the Church as 'a servant of humanity.'

OCTOGESIMA ADVENIENS (OA) [Eightieth Anniversary]

Another major document of Pope Paul VI, besides *Populorum Progressio,* is his letter addressed to Cardinal Maurice Roy, President of the Council of the Laity and of the Pontifical Commission for Justice and Peace, issued to mark the eightieth anniversary of *Rerum Novarum* of Leo XIII. Hence, this letter is known by the title of *Octogesima Adveniens* (OA) [Eightieth Anniversary], issued on 14 May 1971.

In OA, Paul VI describes some new problems and issues which are, according to him, urgent and complex in nature, and which were not thought of twenty years back. They are: urbanisation, industrialisation and environment. According to him,

urbanisation prevails not only in the industrialised countries, but also in the developing ones. He talks of inordinate demographic growth and expansion of urban centres known as a *megapolis*. He notes with regret that urbanisation upsets both the ways of life and the social structures like the family, the neighbourhood. He then indicates a number of problems resulting from urbanisation, namely, new proletariats abandoned by the rich, discrimination and in difference, delinquency, criminality, abuse of drugs and eroticism (OA:8-10).

It is interesting to note that Paul VI has widened the scope of the term 'poor' to include the handicapped, the maladjusted, the old, the marginalised whom, he labels, as 'the new poor':

'The Church directs her attention to these new 'poor' the handicapped and the maladjusted, the old, different groups of those on the fringe of society, and so on - in order to recognize them, help them, defend their place and dignity in a society hardened by competition and the attraction of success' (OA:15).

He points out that it is not enough to denounce injustices, and thus, issues a call to action, a responsible political and social action.

According to O'Brien and Shannon (1977: 347), OA emphasised action for justice, not only as a personal responsibility of every Christian, but also as that of Christian organizations and institutions. James Finn (1993:150), finds in OA many shifts in emphasis. For instance, a shift from a static conception of the world to a vision of dramatic flux; narrowing of the gap between the Church and the world; shifting of the focus from workers in the northern industrialized countries to increasingly concrete worldwide concerns, from the model of the monarchical Church to that of the Church as a servant of humanity, and from the idea of a laity dutifully following papal initiatives to the notion of laity and clergy as co-innovators in the social order. For George V. Lobo (1993: 108), OA is a vibrant call to action, to tackle the social problems of our time.

JUSTICE IN THE WORLD (JW)

In pursuance of the Second Vatican Council, Pope Paul VI convoked   Synod of Bishops in 1971. Bishops from world over, in a spirit of collegiality, met in Rome under the guidance of Pope Paul VI to discuss and deliberate upon two major issues, namely, the priesthood and justice in the world. At the end of this Synod, two

documents were issued, one of them directly dealt with justice, and hence, it was entitled: 'Justice in the World.'

According to O'Brien and Shannon (1977:384-385), this document is characterised by 'a quality of concreteness and realism which distinguished it from previous papal pronouncements, while at the same time it took several of the emerging principles of papal thought and gave them new force.' Further elaborating on this document, they write: 'The result was a strong, positive document sanctioned by papal and episcopal approval which was available to give powerful support to those in all nations working to bring the Church into a more active, vigilant, and pastoral relationship to the problems of world justice and peace.'

Besides taking note of the glaring injustices still rampant in society, the document speaks of paradoxical forces that characterise the modern world. On one side, forces of unification; on the other, forces of division and antagonism becoming stronger and stronger. On one hand, the economic growth is considerably high, on the other hand, the number of the marginalised, ill-fed, inhumanly housed, illiterate and deprived of political power is on the increase. The document expresses concern about certain categories of people when it states : 'Nor should we forget the growing number of persons who are often abandoned by their families and by the community: the old, orphans, the sick and all kinds of people who are rejected' (JW:10 and 26). It lays emphasis on education for justice to be imparted first in families and also in schools and other secular institutions. It is appreciative of the 'inestimable' services rendered among the poorer peoples by the missionaries and Christian organizations (JW:54 and 63).

O'Brien and Shannon (1977:386), commenting on this document, stated: 'Rarely have ecclesiastical documents spoken in such condemnatory language of conditions of injustice in the world.'

EVANGELII NUNTIANDI (EN) [Proclaiming the Good News]

Pope Paul VI promulgated in 1975, another major form of Apostolic Exhortation which he named *Evangelii Nuntiandi* (Proclaiming the Good News). Addressed to the Bishops, the Clergy and all the faithful, it dwells on evangelisation in the modern world. This Apostolic Exhortation is a sequel to the Third General Assembly of the Synod of Bishops in 1974 which had evangelisation as its main theme. At this Synod the Bishops themselves put forward to Pope Paul VI the recommendation of preparing a document on evangelization.

The thrust of *Evangelii Nuntiandi* is to seek 'liberation from everything that oppresses man' (EN: 9). This constitutes the good news to the poorest of the poor. Another expression for good news is the term 'evangelisation' which Paul VI defines as follows: 'For the Church, evangelizing means bringing the Good News into all the strata of humanity, and through its influence transforming humanity from within and making it new' (EN:18). In simple language, evangelisation means renewal of humanity and of the social structure. Thus, evangelisation concerns the rights and duties of every human being, family life, life in society, international life, peace, justice and development. Special reference is made to people from the developing countries who are still 'on the margin of life,' requiring to be liberated from 'famine, chronic disease, illiteracy, poverty, injustices in international relations and especially in commercial exchanges, situations of economic and cultural neocolonialism sometimes as cruel as the old political colonialism' (EN:29-30).

REDEMPTOR HO MINIS (RH) [The Redeemer of Man]

John Paul II, who succeeded Pope John Paul I whose pontificate lasted barely 33 days, marks the beginning of a new pontificate. A charismatic Pope, proclaimed as Man of the Year 1994 by the international TIME magazine (1994-95), he is very much known for his involvement in, and concern for, international issues. He became the first non-Italian Pope and first from the former Communist Block countries, thus breaking the long tradition of the Italian succession to the Chair of St. Peter during its history of 450 years.

In less than five months after ascending the papal throne, John Paul II published in 1979, his first encyclical entitled *Redemptor Hominis* (RH) [The Redeemer of man], wherein he propounded in very emphatic terms, the doctrine of the Church with regard to the redemption of man, his situation in the modern world vis-a-vis the mission of the Church. He wrote this document keeping in vision the year 2000.

In RH, John Paul II points out that the Church is solicitous about the 'concrete,' 'historical' man who is the object and center of her care (RH: 13). Being aware of the development of technology and the development of contemporary civilisation, he regrets that this progress has failed to make man 'more human,' 'more mature spiritually, more aware of the dignity of his humanity, more responsible, more open to others, especially the neediest and the weakest, and readier to give and to aid all.' On the contrary, he finds in contemporary world an increased selfishness, exaggerated nationalism, the tendency to dominate and to exploit (RH:15). He views

progress as the advancement of persons, not in terms of 'having more,' but rather 'being more.' He condemns a civilisation that is totally materialistic leading to conditions of worse misery and destitution (RH:16).

In front of this lamentable scenario, John Paul II begs 'everybody in the name of God and in the name of man: Do not kill! Do not prepare destruction and extermination of men! Think of your brothers and sisters who are suffering hunger and misery! Respect each one's dignity and freedom!' (RH: 16). He convincingly upholds that the Church has always taught the duty to work for the common welfare so also she has taught that the fundamental duty of the State is concern and solicitude for the common good of society (RH:17).

DIVES IN MISERICORDIA (OM) [Rich in Mercy]

The next major Encyclical Letter, published by John Paul II was in 1980, under the title *Dives in Misericordia* (OM) [Rich in Mercy]. In this he reiterates that the mission of the Church is centered upon man. Interpreting the words referred to by Jesus, namely, the poor, the captives, the blind, the oppressed, says John Paul II, that they are the ones without means of subsistence, those deprived of their freedom, the depressed with broken hearts and victims of social injustices (DM:3). He notes with great anguish that in various parts of the world, there exist people who are living in want, suffering misery and often actually dying of hunger, and the number of such reaches tens, even hundreds of millions (DM: 11). Thus, it is the concern and responsibility of the Church and of all people of good will as well to reach out in mercy to the poor and the oppressed so that the latter may enjoy a better future here on earth. Mercy safeguards human dignity, it fosters unity of mankind and universal brotherhood without difference of race, culture, language; it desires 'every true good for each individual and for every human community, every family, every nation, every social group, for young people, adults, parents, the elderly - a love for all without exception.' Mercy can ultimately help to build a civilisation of love, to make the world more human, as John Paul II says, today and tomorrow (DM:15).

LABOREM EXERCENS (LE) [Through Work]

John Paul II soon came out with another important Encyclical named *Laborem Exercens*, 1981, (LE) [Through Work], to mark he ninetieth anniversary of the Encyclical *Rerum Novarum*. In this Encyclical, which deals with human work, John Paul II proclaims the 'Gospel of Work,' whereby he categorically teaches that the

value of human work is determined by the person who is doing it (LE:6). Thus, he opposed the materialistic and economistic perspective that regards work as a kind of 'merchandise' that the worker - especially the industrial worker sells to the employer (LE:7). He is a staunch supporter of new movements of solidarity of the workers and with the workers (LE:8). He has underlined two aspects of work: it makes family life and its upkeep possible as well as the attainment of education. The society to which man belongs, is, in the words of John Paul II, 'a great historical and social incarnation of the work of all generations' (LE: 10).

John Paul takes up the issue of disabled people who, he says, are also fully human beings with innate and inviolable rights notwithstanding their handicaps and other limitations. He contends that they should be helped to participate in the life of society in all its aspects and at all the levels to the extent of their capacities. As such, he urges that appropriate steps be taken to safeguard their right to professional training and work so that they may be gainfully employed. He calls upon the public authorities, associations and intermediate groups, business enterprises to see that the disabled people are offered work according to their capabilities. He holds the community morally responsible to find or create suitable jobs for the disabled, be it in the public sector or be it in private one. He gives equal consideration to their just remuneration and even to the possibility of their promotion, making them thus feel that they are full-scale subjects of work, useful, respected for their human dignity and called to contribute to the progress and welfare of their families and of the community as well (LE:22).

SOLLICITUDO REI SOCIALIS (SRS) [Social Concern]

Pope John Paul II published a fourth major document to mark the twentieth anniversary of *Populorum Progressio* of Pope Paul VI. He gave it a meaningful title, namely, *Sollicitudo Rei Socialis*, 1987, (SRS) [Social Concern], which is indicative of the thrust of the Church.

John Paul II affirms that the Church propounds social doctrine in order to help attain the authentic development of man and society. He expresses the main concern of the Church and of each Christian as the option or love of preference for the poor, the hungry, the needy, the homeless, the sick, the lonely and the oppressed (SRS:42). He argues that the 'gap' which is ever widening, has created different worlds within one world: the First World, the Second World, the Third World, and even the Fourth World, thus indicating that the unity of the human race is at stake (SRS:14). Development and liberation, according to him, must be reflected in the love and service of neighbours, especially of the poorest (SRS:46). He appeals to everyone, to

all men and women without exception, to work unitedly for the welfare of every individual so that he/she may experience a more human life, a new society and a better world.

CENTESIMUS ANNUS (CA) [Hundredth Anniversary]

As mentioned earlier, in the history of the Church the first ever papal document which propounded the social doctrine of the Church was the Encyclical Letter of Pope Leo XIII, entitled *Rerum Novarum* published on May 15, 1891. This epoch making social Encyclical was hailed as the 'Workers' Charter.' Every subsequent Pope, realizing its importance and relevance made it a point to commemorate it so much so they devoted their Encyclicals to mark its anniversary. *Centesimus Annus* is the latest papal document on the social question.

John Paul II reiterates the commitment of the Church to the struggle against marginalisation and poverty. He presses upon the need to change one's mentality that the poor, individually and collectively, are regarded a burden, as irksome intruders trying to consume goods and services produced by others (CA28).

He expressed satisfaction that some countries have attempted to create a new type of State, the 'Welfare State,' in order to eliminate poverty and deprivation. He upholds the principle of subsidiarity in that the State should support the poor communities. He has in mind particularly those people such as refugees, immigrants, the elderly, the sick, etc who must be helped. He recalls the contribution of the Church down the centuries towards the poor and the indigent. He wrote: 'Men and women religious founded hospitals and shelters for the poor, confraternities as well as individual men and women of all states of life devoted themselves to the needy and to those on the margins of society.' He also mentions that there is poverty even in the West, for instance the marginalised, the elderly, the sick, the refugees and migrants, and the victims of consumerism (CA:57). John Paul II, as he looks forward to the third millennium, states that the Church will ever remain faithful to her mission to serve the poor and the needy (CA:62).

To conclude, the social doctrine of the church, as expounded above, constitutes the rich heritage of social concern and social response to justice and charity. Right from Leo XIII to John Paul II one finds an uninterrupted line of social thinking. The Church has faithfully fulfilled her mission of liberating the suffering humanity from the clutches of injustice and exploitation. Her constitution towards the building up of 'civilization of love' is immense, and worth emulating.

References

1. Desrochers, John. 1992. *The Social Teaching of the Church.* Bangalore : Centre for Social Action.

2. Finn, James. 1993. 'Octogesima Adveniens', in George Weigel and Robert Royal. (eds.). *Building the Free Society: Democracy, Capitalism and Catholic Social Teaching.* Michigan: Win. B. Eerdimans Publishing Co., pp. 149 - 161.

3. Hazen, Charles Downer. 1968. *Modern Europe Upto 1945.* Delhi: S. Chand and Company.

4. John XXIII. 1963. *Encyclical Letter Mater et Magistra.* London: Catholic Truth Society.

5. 1965. *Encyclical Letter Pacem in Terris.* London: Catholic Truth Society.

6. John Paul II. 1979. *Encyclical Letter Redemptor Hominis.* Bombay: Daughters of St. Paul.

7. 1981a. *Encyclical Letter Dives in Misericordia.* Bombay: Daughters of St. Paul.

8. 1981b. *Encyclical Letter Laborem Exercens.* Bombay : Daughters of St. Paul.

9. 1990. *Encyclical Letter Solicitudo Rei Socialis.* Bombay: Daughters of St. Paul.

10. 1991. *Encyclical Letter Centesimus Annus.* Bombay: Daughters of St. Paul.

11. 'Justice in the World', in *Promotion of Social Justice.* 1980. New Delhi: Indian Social Institute, pp. 6 - 25.

12. Kohler, Thomas C. 1993. 'Quadragesimo Anno', in George Weigel and Robert Royal. (eds.). *Building the Free Society: Democracy, Capitalism, and Catholic Social Teaching.* Michigan: Wm. B. Eerdmans Publishing Co., pp. 35 - 45.

13. Leo XIII. 1960. *Encyclical Letter Rerum Novarum.* London: Catholic Truth Society.

14. Lobo, George V. 1993. *Church and Social Justice*. Gujarat : Gujarat Sahitya Prakash.

15. O'Brien, David J. and Shannon, Thomas A. 1997. (ed.). *Renewing the Earth: Catholic Documents on Peace, Justice and Liberation*. New York: Image Books.

16. 'Pastoral Constitution on the Church in the Modem World: Gaudium et Spes'. 1966. in Walter M. Abbot. (ed.). *The Documents of Vatican II*. London: Geoffrey Chapman, pp. 199 - 308.

17. Paul VI. 1967. *Encyclical Letter Populorum Progressio*. London: Catholic Truth Society.

18. 1985. 'Octogesima Adveniens', in Michael Walsh and Brain Davis. (eds.). *Proclaiming Justice: Documents from John XXIII to John Paul II*. Bangalore : Theological Publications in India, pp. 167 87.

19. 1992. *Apostolic Exhortation Evangelii Nuntiandi*. Bombay: Daughters of St. Paul.

20. Pius XI. 1960. *Encyclical Letter Quadragesimo Anno*. London: Catholic Truth Society. ,

GLOBAL PATTERNS FOR MULTIPLE DATA SOURCES USING SUPPORT AND CONFIDENCE PARAMETERS

Mr. Shekar B. Naik
Department of Computer Applications and IT

This article aims at synthesizing dominant patterns without the knowledge of size of local data sources at the central system. Data mining refers to extraction of knowledge from large data sets. Local patterns are synthesized to generate global patterns.

1. Introduction

Data mining refers to extracting or mining knowledge from large amounts of data. Synthesizing Patterns from Multiple Data Sources deals with reusing all promising rules discovered from different data sources to form a large set of rules and then searching for valid rules that are useful at the organization level. Firstly, each data source is mined for local rules. Secondly, these rules are synthesized to find dominant rules for the overall organization.

The rest of this article is organized as follows:

Section 2 describes the problem dealt with. Section 3 describes related works that have been done. In Section 4, the approach to find dominant patterns in multi-databases is discussed. Experimental results are kept in section 5. In section 6, outline of future work is kept.

2. Problem Statement

To synthesize dominant rules for the overall organization each data source has to send all its promising rules and also the size of the data source itself to the central system, which synthesizes global patterns. At times, it may not be feasible to send size of the data source to the central system. In such situation dominant patterns will have to be synthesized based upon only the support and confidence information rules. Hence is the problem statement:

Given data sources from a large organization, we are interested in synthesizing local rules from each data source to find dominant rules, when size of data source is not provided to the central system, for the overall organization that

would have been discovered from the union of all these data sources.

As "Synthesizing Dominant Patterns from Multiple Data Sources" already describes methods to synthesize local rules to generate overall patterns for the entire organization, this article only describes the method to calculate some parameters in "Synthesizing Dominant Patterns from Multiple Data Sources", which are calculated from size of each database, which is directly sent to the central system.

3. Related Works

Data mining, also known as knowledge discovery in databases, aims at the discovery of useful information from large collections of data [1], [3], [4]. The discovered knowledge can be rules describing properties of the data, frequently occurring patterns, clustering of objects in the database, and so on, which can be used to support various intelligent activities, such as decision making, planning, and problem solving.

Synthesizing model [14] is adopted. This model synthesizes rules from local rules generated at each data source. Association rules are forwarded from different, known data sources in the branches of a large company, and a central system synthesizes these rules using the following algorithm.

Algorithm Design Trend method

Let D_1, $D2$, Dn be n data sources, S_i the set of association rules from D_i $(I=1,2,....,n)$, $Support_i(R)$ and $Confidence_i(R)$ the supports and confidences of rules in S_i, and *minsupp* and *minconf*, the threshold values given by the user. The synthesizing for association rules in different rules in different data sources is designed as follows:

Algorithm *Rulesynthesizing by trend*

Input: $S_1, S_2, ..., S_n$: rulesets; *minsup,minconf*: threshold values;
Output: $X \rightarrow Y$: synthesized association rules;

1.   let $S \leftarrow \{S_1, S_2, ..., S_n\}$;
2.   **for each rule R in S do**
         for $i=1$ **to** n **do**
         if rule R is present in S_i then
         $TransK(R) = TransK(R) + Support_i(R) * Size(D_i)$
         $SupportDatabasesize = SupportDatabasesize + Size(D_i)$
         End if
     End for
     $Trend = TransK(R) / SupportDatabasesize$
     $TotalSize = SupportDatabasesize$
     for $i=1$ **to** n **do**
         if rule R is NOT present in S_i then
         $TransN(R) = TransN(R) + Trend * Size(D_i)$
         $TotalSize = TotalSize + Size(D_i)$
         End if
     End for
     $Suppport(R) = (TransK(R) + TransN(R)) / TotalSize$
     $Confidence(R) = Confidence(R) = Suppport(R)/Support(X)$
     End for
3.   **output** the heavy rules in S whose support and confidence are atleast *minsupp* and *minconf* respectively.

4. **Synthesizing by estimating size of the data source**

Let $D_1, D_2, ..., D_n$ be n data sources corresponding to n different branches. For each data source, the set of rules with support greater than minimum support and confidence greater than minimum confidence is generated locally using apriori algorithm. The support and confidence of each rule tells about its weight with respect to its local data source D_i, if it is present in D_i. Only local behavior about the rules is described. It does not provide any information about a rule behavior with respect to the whole database, which is the sum of all data sources together. Information about the global behavior tells about the weight of the rule with respect to entire data from all the data sources. This is in the form of rules with synthesized support and synthesized confidence. These are synthesized rules. Their support and confidence is based on the entire database.

To generate synthesized rules all the rules from each data source size of the data source, are sent to head office for further processing. No record sets are sent to the head office. Also size of the data source is not sent to head office.

Let $R_1, R_2, \ldots, R_k$ be the rules sent to the head office. All these rules have their local supports greater than minimum support and local confidence greater than minimum confidence.

A Rule R_i need not to be sent by all the data sources. The data sources in which rule R_i has confidence less than minimum confidence will not send the rule R_i to the head office. Thus the head office has no information about the support and confidence of the rule with respect to the data source that has not sent the rule.

Let $D_1, \ldots, D_j$ be the data sources that support the rule R and $D_{j+1}, \ldots, D_n$ be the data sources that do not support the rule R. Number of transactions supporting R amongst $D_1, \ldots, D_j$ taken together, TransK(R), is calculated as according to the algorithm "*Rulesynthesizing by trend*"[14],

$$\text{TransK(R)} = \sum_{i=1}^{j} \text{Support}_i(R)*\text{Size}(D_i)$$

TransK(R) is the number of transactions that support the rule R out of all transactions of $D_1, \ldots, D_j$ taken together, Support(R) is the support of rule R in data source D_{id}, and Size(D_{id}) is the size of data source D_i. The term Support(R)*Size(D_i) is the number of transactions that support R in data source D. But the problem discussed in this article assumes that no data source sends its size to the head office. Hence TransK(R) cannot be calculated as the parameter Size(D_i) is not available for every i. Along with TransK(R), many more terms in the algorithm "*Rulesynthesizing by trend*"[14] need Size(D_i) for their calculation.

Hence now we come to the main task of this article that is to estimate the approximate size of each data source D_i from support and confidence information of rules sent by the data sources.

Let D be a data source that has sent rules R1,R2,…,Rk to the head office. Let RD be a set of item sets, to be called as "Relevant data source", which is obtained by the following way.

1. Consider a table "Item set occurrence", denoted as IS, containing two fields, Item set and Occurrence. The term Occurrence is calculated further. This table shows the potential number of occurrences of the item set in D.

2. Arrange all the rules sent by D in ascending order of the number of items present in a rule. If the confidence values are stated in decimals then convert them to a fraction of the form Nc/Dc.

3. For each rule R, let Ia be the item set containing all the items of R and Il be the set equal to the left hand item set of R. If Ia is not present in IS then store Ia with Occurrence value Nc, and if Il is not in IS then store Il occurrence value Dc.

4. If Ia is already in IS then Occurrence value for Is is given by the formula Occurrence(Is)=(OccurrenceO(Ia)/Nc)*Dc, where, OccurrenceO(Ia) is the Occurrence value of Ia present in IS.

5. If Is is already in IS then Occurrence value for Ia is given by the formula Occurrence(Ia)=(OccurrenceO(Is)/Dc)*Nc, where, OccurrenceO(Is) is the Occurrence value of Is present in IS.

6. To construct RD, consider item sets in IS in ascending value of their Occurrence. For every item set I with its Occurrence value o in IS, let n the number of sets in RD having all the items in I. RD will have (o-n) entries of I. Thus the table RD once complete will give some idea about its original data source D. But size of D may not be equal to size of RD.

7. In this case, size of D is calculated considering any item set I in RD as, Size(D)=Size(RD)*Supp(I_{RD})/Supp(I_D) where, Supp(I_D) is the actual support of I in data source D, which is sent as rule information to the head office, and Supp(I_{RD}) is the support of I in RD.

Size(D) obtained from support and confidence information of rules can be then used to obtain values of other terms in *"Rulesynthesizing by trend"*[14] algorithm.

5 Experiments

5.1 Consider a data source with five item sets
{I1,I2},{I1,I2,I3},{I2,I3},{I1,I2},{I1,I3}
Support of each item set is given below

Item Set	Support	Item Set	Support
{I1}	0.8	{I2,I3}	0.4
{I2}	0.8	{I3,I1}	0.4
{I3}	0.6	{I1,I2,I3}	0.2
{I1,I2}	0.6		

The following rules are mined

Rule	Confidence	Support	Rule	Confidence	Support
{I1}→ {I2}	¾	0.6	{I1} → {I2.I3}	1/4	0.2
{I2} →{I1}	¾	0.6	{I2,I3} → {I1}	½	0.2
{I1}→ {I3}	½	0.4	{I2}→ {I1,I3}	¼	0.2
{I3}→{I1}	2/3	0.4	{I1,I3}→ {I2}	½	0.2
{I2}→{I3}	½	0.4	{I3}→ {I1,I2}	1/3	0.2
{I3}→{I2}	2/3	0.4	{I1,I2}→ {I3}	1/3	0.2

Table IS obtained is

Item Set	Occurrence	Item Set	Occurrence
{I1}	4	{I2,I3}	2
{I2}	4	{I3,I1}	2
{I3}	3	{I1,I2,I3}	1
{I1,I2}	3		

Table obtained obtained is

Item Set
{I1,I2,I3}
{I3,I1}
{I2,I3}
{I1,I2}
{I1,I2}

Size of D is calculated as
Size(D)=Size(RD)*SuppRD(I3,I1)/SuppD(I3,I1)=5*0.4/0.4=<u>5</u>

5.2 Consider a data source with five item sets
{I4},{I1,I2},{I4},{I1,I2,I3},{I4},{I4},{I2,I3},{I4},{I1,I2},{I1,I3}
Support of each item set is given below

Item Set	Support	Item Set	Support
{I1}	0.4	{I2,I3}	0.2
{I2}	0.4	{I3,I1}	0.2
{I3}	0.3	{I1,I2,I3}	0.1
{I1,I2}	0.3		

The following rules are mined

Rule	Confidence	Support	Rule	Confidence	Support
{I1}→{I2}	¾	0.3	{I1}→{I2.I3}	1/4	0.1
{I2}→{I1}	¾	0.3	{I2,I3}→{I1}	½	0.1
{I1}→{I3}	½	0.2	{I2}→{I1,I3}	¼	0.1
{I3}→{I1}	2/3	0.2	{I1,I3}→{I2}	½	0.1
{I2}→{I3}	½	0.2	{I3}→{I1,I2}	1/3	0.1
{I3}→{I2}	2/3	0.2	{I1,I2}→{I3}	1/3	0.1

Table IS obtained is

Item Set	Occurrence	Item Set	Occurrence
{I1}	4	{I2,I3}	2
{I2}	4	{I3,I1}	2
{I3}	3	{I1,I2,I3}	1
{I1,I2}	3		

Table RD obtained is

Item Set
{I1,I2,I3}
{I3,I1}
{I2,I3}
{I1,I2}
{I1,I2}

Size of D is calculated as

$Size(D)=Size(RD)*SuppRD(I3,I1)/SuppD(I3,I1)=5*0.4/0.2=\underline{10}$

Conclusion

This article is based upon the *"Rulesynthesizing by trend"*[14] method. It proposes a change in one of the assumptions of *Rulesynthesizing by trend"*[14] algorithm. This proposed method in this article assumes that no data source size information is sent to the head office. So the main task discussed in this article is to estimate the size of local data sources from rules which are sent to the head office.

Future work will include more experiments and theoretical analysis of this problem.

References

1. R. Agrawal, T. Imielinski, and A.Swami, "Mining Association Ruls Between Sets of Items in Large Database," *Proc. ACM SIGMOD Conf. Management of Data*, pp. 2017-216,1993.

2. Xindong Wu and Schicao Zhang, "Synthesizing High-Frequency Rules from Different Data Sources" *,IEEE Transactions on Knowledge and Data Engineering*, vol. 15, No. 2 March/April 2003

3. M. Chen,J. han, and P. Yu, "Data Mining: An Overview froma Database Perspective," IEEE Trans Knowledge and Data Eng., vol. 8, no. 6,pp. 866-881, Dec. 1996.

4. R. Srikant and R. Aggrawal,"Minning Generalized Association Rules," Future Generation Computer Systems, vol. 13, pp. 161-180,1997.

5. J. Chattratichat, "Large Scale Data Minining: Challenges and Responses," *Proc. Third Int'l Conf. Knowledge Discovery and DataMining*, pp. 143-146,1997.

6. J.S.Park, M. Chen, and P.S. Yu, "Efficient Parallel and Data Mining Rules," Proc. Conf. Information and Knowledge Management, pp. 31-36,1995.

7. S. Parthasarathy, M,J. Zaki, M Ogihara, and W. Li," Parallel Data Mining and Association Rules on Shared-Memory Systems," *Knowledge and Information systems*, vol. 1, pp 1-29, Mar. 2001.

8. M. Sayal and P. Scheuermann, "Diatributed Web Log Mining Using Maximal Large Itemsets," Knowledge and Information systems, vol. 4, pp.389-404,Mar. 2001.

9. T. Shintani and M.Kitsuregawa, Parellel Mining Algorithms for General Associatio Rules with Classification Hierarchy," *Proc. ACM SIGMOD Int'l Conf. Management of Data*, pp. 25-36, 1998.

10. D. Cheung, J. Han, V. Ng, and C. wong, " Maintaenance of Discovered Association Rules in Large Databases: An Increamental Updating Technique," *Proc. 12ᵗʰ Int'l Conf. Data Eng.*,pp.106-114,1996.

11. D.B. skillicorn and Y.Wang, " parellel and sequential algorithms for Data Mining Using Inductive Logic," *Knowledge and Information systems*, vol.4, pp. 405-421, Mar.2002

12 *"Multi-Database Mining"*, Schicao Zhang, Xindong Wu and Chengqi Zhang.

13. *"Data Mining Concepts and techniques"*, Jiawei Han and Micheline Kamber, *Simon Fraser University*, Morgan Kaufmann Publishers ,2001.

14. *"Synthesizing Dominant Patterns from Multiple Data Sources"* Project.

A STUDY OF THE SOCIO-ECONOMIC PROFILE OF UNDER GRADUATE COLLEGE STUDENTS WITH SPECIAL REFERENCE TO MOBILE PHONE USERS

Mr. Savio Falleiro
Department of Economics

Mobile phones are no longer a rich mans fad but an 'in thing' with the hoi polloi. They are treated increasingly as a 'necessity'. India at present has over 11.66 crore mobile phone users with Delhi itself having a total mobile subscriber base of over 10 million. In the month of October 2006, GSM cellular operators in India reported a record addition of 4.7 million new subscribers. On 19th October, 2006, Nokia sold over 4 lakh mobile phones all over India just in one day! Besides their traditional functions, cell phones have over the years been used for television programmes, as web browsers, virtual wallets, radio and music players et al. However, mobile phones have also had their share of problems too. Capturing lewd acts, distractions in class, loss of temper, stress, etc. are often the consequences of irresponsible use of mobile phones. Health wise too there is a big question mark as to the implications on cancer, toddlers and on male (in)fertility.

This paper is an outcome of the study that was conducted to know the status of cell phone usage in Goan colleges. It identifies areas that may need to be (re)looked into by the various stakeholders in the educational field. The study was felt to be necessary since we are presently living in times where we cannot wish away the use of cell phones. 40% of the global population comprising of over 2 billion people are already 'mobile'. It is claimed that by 2010, 90% of the world will be covered by mobile networks. In the UK around 50% of the children of 10 years of age possess mobile phones and more than nine out of 10, 12-year-olds are having one. And in Goa are we in any way far behind the global scenario?

General Introduction

Mobile phones today are fast catching the attention of one and all throughout the world as well as in India. Goa is not an exception. As per a study, it was found that the rapid increase in cell phone technology had for the first time in 2001 led to the total number of phones used worldwide to surpass the number of television sets. Mobile phones are no longer a rich mans fad. Mobile phone services, which represent a multi-billion dollar industry worldwide, were introduced in India in the first half of the nineteen-nineties. At that time, hardly 10% of urban homes had landlines. A report appearing in *The Economic Times* showed that at present there are over 10 million subscribers in Delhi alone. Other metropolitan cities and even tier II and tier III cities are not far behind. As of August 2006, India has over 11.66 crore mobile users *[economictimes.indiatimes.com]*. And the number is ever growing in size. To prove the point while the month of March 2006 alone witnessed the addition of 50 lakhs of new mobile phone connections the biggest ever addition for any month, as of March 2006 *[Article / 11/04/2006 / www.domain-b.com]*, in August 2006, the figure was a record breaking figure of 58.38 lakhs. At present India is claimed to be the second largest market after China for mobile handsets and the world's fastest growing wireless services market.

The cell phones have over the years performed qualitatively and substantially. In South Korea, Japan, U.S.A. and elsewhere too, mobile phones are made use of to show television programmes. China used them to warn people through SMS's about impending floods…and so did certain cellular service providers in India to forewarn about heavy rains in Mumbai. During the July 2006 bomb blasts in Mumbai, it was the mobiles which kept people / families in touch with one another. It is cheaper and faster (with instant connectivity) to send mobile messages today than to send postal ones. Mobiles have also been used on occasions to capture pictures in the detection of crime. In present times cell phones are increasingly being used as an important medium of media as well as a medium for the entertainment industry. Media planners feel the mobile phone is an extremely effective way to communicate to specific groups, especially the youth. The reach of this medium as measured by the proportion of the population accessing value-added-features (VAS) at least once a week - has grown from 1.1% last year to 2.7% - translating to nearly 22 million individuals *[TNN, 04/09/2006]*.

However, mobiles have had their share of problems and drawbacks too. Girl students of MCM DAV College, Chandigarh, wearing black tops and protesting the college "anti-cell phone stand", made headlines as recently as end August 2006. Capturing nude images of innocents, photographing acts of masturbation and sexual

intercourse and using the clips for blackmail or extortion or for sending MMS messages are not unknown. Mental-cum-psychological problems / trauma, road accidents, improper etiquette etc. are often the consequences of irresponsible use of mobile phones. Hefty bills, peer pressure, distractions and possible health related problems are also associated with mobile phones. Mobile phones have been used for examination related malpractices and acts of terrorism too. Mobile phones have been banned in a large number of educational institutions all over India, including elite colleges in metropolitan areas, on account of their adverse implications. In Goa too, colleges in general have prohibited / discouraged the carrying and / or use of mobile phones in campuses.

Purpose / Objective of the Study

The purpose of this study was *primarily to obtain a socio-economic profile of undergraduate college students in general and of mobile phone users in particular.* The study would consequently help to know better various issues related to mobile phone usage of college students and whether college guidelines are adhered to or not. Besides also trying to find about parental influences on mobile phones, the study focuses on finding if there exists any difference in the profile of college girl's vis-à-vis boys as mobile phone users. Based on the findings, the study would assist to prepare the basic groundwork for an effective future course of action to take care of the 'mobile phone' situation prevailing in undergraduate colleges in Goa.

Methodology

The survey based study was conducted on 206 under graduate students in South Goa. The sample was chosen in a way that the results obtained would represent other college students too. The questionnaire-cum-group / one-to-one interview dependent study which made part use of the stratified as well as systematic random sampling methods for obtaining data, involved 55 boys and 151 girls - the proportion varying between boys and girls on account of the enrollment pattern which was very strongly in favour of girls. For the purpose of wider readership (and since the sample is quite a representative one) the traditional percentage method has been adopted. To constitute an appropriate sample, proportionate representation has been given to First, Second and Third Year students belonging to four different faculties and also to government aided courses vis-à-vis self financed courses (where the fees are as high as Rs. 25000 p.a.), as well as to students from rural, urban and semi urban / rural background. The study incidentally chose students who were enrolled where mobile phones are strictly discouraged / prohibited[1].

Constraints / Limitations

* Figures given with respect to income category of households could not be personally verified. However this deficiency gets reduced on account of the substantial sample size.

* The future plans of students mentioned herein concerning mobile phones are based on their present ideas. They may / may not materialize.

* The findings arrived at may not apply to 'elite' or professional colleges, or to colleges located in relatively less developed / 'poor' areas, or to colleges patronized by only urban based or only rural based students.

* The approximate cost of cell phones can change from time to time on account of market conditions, competition and technological advancements.

* The study focuses pre-dominantly on gender based differences only. Other differences are not considered for any special attention although the sample takes into account the same for obtaining better results.

Case Study

A] Socio-Economic Profile of Students in General vis-à-vis Mobile Phone Users

* *Sample Surveyed and Ownership of Cell Phones*:
Of the 55 boys 'randomly' chosen, 25 owned ('owned' is also used to represent 'exclusive full time use') mobile phones whereas 30 did not. Thus, while 45% owned a cell phone, 55% did not. The percentages were identical in the case of girls too. Of the 151 girls taken for study, 68 owned a mobile phone, while 83 did not. Thus the overall figure arrived at shows that roughly 45% (almost half of the student's population) own a mobile phone at present or have exclusive use over one.

An interesting finding of the study was that of the remaining 113 students (55% of the total sample) comprising of 30 boys and 83 girls not owning a mobile at present, 75 (66.37%) of them, have indicated that they are in fact "going to go for one shortly"[2] or "if provided for one under some scheme" (like low installment scheme). The break up of figures for those presently not having but were inclined to go for one shortly or if provided was 63.33% for boys and 67.47% for girls. A point to be noted is that the study revealed that while 30% of

the boys not having mobile at present will "go for one shortly", the figure was 21.69% for girls. Whereas in case of those not having mobiles at present but are going to go for one "if provided / offered under some scheme", the figures for boys and girls were reverse. Here 45.78% of girls showed positive inclination as compared to only 33% for boys.

If we consider figures of those who have mobiles at present along with those who "will go for one shortly" or "if provided…", then the consolidated figure is a whooping 80% for boys and 82% for girls. The total number of such students is 81.55% (168 out of 206 surveyed)! Of the total sample surveyed, only 18.45% (comprising 17.88% girls and 20% boys) had no mobile at present and neither had they any plan for acquiring one shortly or even if made available under any scheme.

- *Household Income Category of Total Sample Surveyed vis-à-vis Actual Mobile Phone Users and 'Potential' Users*:

The sample selected for study purpose belonged to income categories (approximate total household income per month) as mentioned in Table 1.

Table 1

	BelowRs 5000	Rs. 5000-10000	Rs. 10001-15000	Rs. 15001-20000	Above Rs. 20000
Boys	11 [20%]	21 [38.18%]	11 [20%]	04 [7.27%]	08 [14.55%]
Girls	38 [25.17%]	53 [35.10%]	28 [18.54%]	14 [9.27%]	18 [11.92%]
TOTAL	49 [23.78%]	74 [35.92%]	39 [18.93%]	18 [8.74%]	26 [12.62%]

Table 2 given below shows the monthly household income category of mobile phone using students:

Table 2

	Below Rs. 5000	Rs. 5000-10000	Rs. 10001-15000	Rs. 15001-20000	Above Rs. 20000
Boys	03 [12%]	07 [28%]	07 [28%]	04 [16%]	04 [16%]
Girls	10 [14.71%]	26 [38.24%]	13 [19.12%]	06 [8.82%]	13 [19.12%]
TOTAL	13 [13.98%]	33 [35.48%]	20 [21.51%]	10 [10.75%]	17 [18.28%]

An analysis of Table 1 vis-à-vis Table 2 reveals that there is a difference in the total percentage figures primarily with reference to the "Below Rs. 5000" category and "Above Rs. 20000" category. The figures are more or less similar for the remaining categories.

The household income wise breakup of students not having mobile phones at present but who are 'going to get one shortly' or 'if offered under any scheme' is given in Table

3. As mentioned earlier 19 boys (63%) and 56 girls (67.47%) comprising of a total of 75 (66.37%) had indicated that they are 'going for a mobile of their own shortly' or 'if provided under any easy / attractive scheme'.

Table 3

	Below Rs. 5000	Rs. 5000-10000	Rs. 10001-15000	Rs. 15001-20000	Above Rs 20000
Boys	04 [21.05%]	09 [47.37%]	03 [15.79%]	----	03 [15.79%]
Girls	20 [35.71%]	18 [32.14%]	11 [19.64%]	07 [12.5%]	----
TOTAL	24 [32%]	27 [36%]	14 [18.67%]	07 [9.33%]	03 [4%]

Table 3 reveals that more than two thirds of the overall students who presently do not own cell phones but are 'going for one shortly' or 'if provided...' are from households having monthly income of Rs. 10000 and below. It also appears from the table that cell phones *do not matter* to girls - coming from the 'Above Rs 20000' per month Category - who do not currently have one.

• *Single Income Earner vis-à-vis Mobile Ownership:*
Table 4 shows details of students who either presently own mobile phones or are going to 'go for one shortly' or 'if provided under a scheme' BUT in whose households only one member is having a full time and / or regular job.

Table 4

	Total No. of students from said category (namely, households with 'Single Earners') as % of total sample	Mobile ph. users of said category as % of total mob. users	% of Mob. Ph. users of said cat. as % of total sample	'Going for one' or 'if provided' from said cat. as % of total of those going to go for one	'Going for one' or 'if provided' from said cat. as % of total sample	TOTAL of those having or 'going for one' or 'if provided' from said cat. as % of col. 2	TOTAL of those having or 'going for one' or 'if provided' from said cat. as % of total sample
Boys	29 [52.72%]	13 [52%]	23.64%	12 [63.16%]	21.82%	25 [86.21%]	25 [45.45%]
Girls	104 [68.87%]	46 [67.65%]	30.46%	36 [64.29%]	23.84%	82 [78.85%]	82 [54.30%]
Total	133 [64.56%]	59 [63.44%]	28.64%	48 [64%]	23.30%	107 [80.45%]	107 [51.94%]

The above Table 4 reveals that majority of students, both boys and girls, typically represent those coming from households where only one member has a full time or / and regular job. The table also highlights that majority of students (boys as well as girls) who have a cell of their own or are 'going to have one shortly' or 'if offered under

a scheme' are from households where only one member has a full time / regular job. An interesting finding of the study was also that of the total number of students from the sample coming from households with only one earning member, an overwhelming majority of around 80% said that they either have their own mobile phone at present or will be going to 'go for one shortly' or 'if provided / offered under any attractive scheme'.

Related to the above findings, the study also reveals that a little below 2% of the total sample constituted of students in whose households nobody has a full time and / or a regular job. However in spite of this fact, 50% of them owned / used mobile phones. The remaining 50% too had plans of their own to go for one shortly.

- *Single Income Earners vis-à-vis Number of Dependants*:

With respect to households where there was only one member with a full time / regular job, it was found that the average number of dependants on the single member was 4.55 members with respect to the total girls taken for study. The figure was more or less the same at 4.54 when it came to girls who owned mobiles. The corresponding figure was 4.90 and 4.64 respectively for the boys.

- *'Household Ownership' vis-à-vis Mobile Phone Users*:

The study, as given in Table 5, reveals figures of certain items owned by households of mobile phone using students.

Table 5

Household Ownership of Things (Households of Mobile Ph. Users)	Boys	Girls
Washing Machine + Bike + PC + Fridge + House + Land Phone + Car + AC	28%	7.35%
Washing Machine + Bike + PC + Fridge + House + Land Phone + either Car or AC	20%	25%
Excluding AC, Car & House has 3 or less items of the other five mentioned above	28%	25%
Ownership of 4 to 5 things excluding AC, Car & House	24%	42.65%

Table 5 reveals that more of the boys households own all the things considered vis-à-vis those of girls (28% v/s 7.35%). The table also shows that 25.81% of the total number of mobile using students (28% boys and 25% girls) come from households who own just 3 or even less of the present day 'necessities' namely washing machine, bike, personal computer (PC)[4], fridge and land phone.

- *Land-line Phone Connection and Mobile Phone Users:*
Of the total sample surveyed, 43 students comprising of 9 boys and 34 girls, have no land line phone at home. Thus 20.87% of the students (16.36% boys and 22.52% girls) surveyed do not have a land line at home. However it is worth a mention here that out of these, 17 (i.e. 39.53%) have mobile phones of their own. Of the total mobile phone owners in the college, 18.28% do not have a land phone at home. Of these 20% are boys and 17.65% are girls. A very revealing fact also found was that 6.45% of the total mobile phone users had neither landline nor other mobile phone connection at home!!

- *Pocket Allowances vis-à-vis Mobile Users:*
A study of pocket allowances of students showed that while 47.26% got theirs on a monthly basis, 49.75% got theirs on a daily basis and 2.99% of the students (comprising of 1.85% boys and 3.40% girls) got no pocket allowance at all. An interesting fact noticed regarding the pocket allowance of the total sample surveyed was that while more boys got theirs on a monthly basis (53.70%), more girls got on a day to day basis (51.70%). While 50% of the boys receiving monthly allowances got average pocket money of below Rs. 500 a month, the other 50% got above Rs 500 per month. However, in case of girls, while the majority of 66.13% got monthly pocket money of less than Rs. 500, 33.87% got more than Rs 500. The overall average monthly income for boys was around Rs. 495 and in case of girls it was marginally higher at Rs. 505 approx. The daily average of pocket allowance was roughly Rs 20 per student. Table 6 given below shows ownership of mobiles as per receipt of pocket allowance (monthly basis vis-à-vis daily basis):

Table 6

	Ownership of mobiles where pocket allowance is on 'monthly' basis	Ownership of mobiles where pocket allowance is on 'daily' basis
Boys	70.83%	29.17%
Girls	47.54%	52.46%
TOTAL	54.12%	45.88%

The above table reveals that majority of the boys (a little over 70%) owning mobile phones got their pocket money on a monthly basis, whereas in case of girls the figures were more or less the same for monthly vis-à-vis daily basis although there was a slight tilt in favour of the latter. It will not be out of place to mention here that the pocket allowances are as high as Rs. 100 per day in a number of cases and up to Rs. 8000 per month (as was in a one off case!!) and that too on a regular basis!

- *Student Ownership of Bike, PC and/or Mobile Phone:*

The study conducted also looked into the facet of student ownership (to also include exclusive use) of things like PC, Bike and Mobile Phone. Table 7 given below shows figures for the total sample surveyed.

Table 7

"Student Ownership"	Boys	Girls	Total [%]
PC	41 [74.55%]	88 [58.28%]	62.62%
Bike	17 [30.91%]	39 [25.83%]	27.18%
Mobile Phone	25 [45.45%]	68 [45%]	45.15%
Mob. Ph. + Bike + PC	11 [20%]	18 [11.92%]	14.08%
Mob. Ph. + PC	21 [38.18%]	45 [29.80%]	32.04%
Mob. Ph. + Bike	13 [23.64%]	22 [14.57%]	16.99%
Mob. Ph *but no* PC	04 [7.27%]	22 [14.57%]	12.62%
PC *but no* Mob. Ph.	20 [45.45%]	39 [25.83%]	28.64%
Bike + PC *but no* Mob. Ph.	04 [7.27%]	13 [8.61%]	08.25%
Only Mob. Ph. (*No bike & No PC*)	01 [1.82%]	16 [10.60%]	08.25%
No Mob. Ph.: No Bike; No PC	10 [18.18%]	35 [23.18%]	21.84%

Table 7 reveals that although the mobile phone users among the total sample are almost the same for boys and girls at 45%, boys have greater access than girls to bikes and especially PC's. Instead, more girls have mobile phones but no PC's in contrast to boys. The percentage of boys with PC's alone and no mobile phones was greater than was the case with girls. Another point that can be seen is that more girls have only mobiles (no bike and no PC) as compared to boys.

A study to see in which household income category the students who own only mobile phones but no bike and PC belong to, revealed the following pattern as shown in Table 8.

Table 8

Household Income Category	Total Percentage
Below Rs. 5000	23.53%
Rs 5001 – 10,000	47.06%
Rs 10001 - 15000	05.88%
Rs 15001 - 20000	11.76%
Above Rs 20000	11.76%

An interesting facet that can be seen from Table 8 above is that besides close to half the number of the students having only mobile and no bike and PC belonged to the Rs 5001 to Rs 10000 a month category, close to a quarter of the students belonged to household incomes of over Rs 15001 a month.

- *Personal Ownership of Mobile Phone vis-à-vis Other Mobile Phones at Home:*
Amongst the mobile phone users, 44% of the boys have two or more mobile phones at home (excluding the one which they are using). For the girls the figure was lower than the boys at 33.82%. In the case of boys the maximum number of cell phones at home was 5, whereas it was 8 in case of girls. 36% of the boys and 26.47% of the girls had no other cell phone at home (except for the one which they were using). As mentioned earlier to a related matter, it was also found that of the total mobile users of the sample surveyed, 6.45% had neither a mobile phone nor a land line connection at home!! *Why then they need a cell phone is a question for debate.*

B] Socio-Economic Profile of Mobile Phone Users in Particular

Of the total mobile phone users surveyed, an overwhelming majority of the respondents (94.62%) were having pre-paid mobile connections. A small percentage of only 5.37% had post paid connections. Similarly, *GSM* phones were more popular than '*CDMA*' ones. Only three of the students (constituting less than 2% of the mobile users) opted for CDMA technology cell phones, with the overwhelming majority of 98%+ opting for GSM ones.

o   *Camera v/s Non-camera Mobile Phones:*
Amongst the students owning their own mobile phones, 39 students (constituting 41.94%) possessed mobile phones with camera (including *blue tooth* enabled phones). The remaining 58.06% of the students used phones without camera. While in case of boys, 52% had camera phones in case of girls the corresponding figure was 38.24%. Majority of the girls (61:76%) had no camera phones as compared to 48% of the boys. While in the case of boys most of the camera phones were possessed by boys coming from households where the gross monthly household income was between Rs 10000-15000, in case of girls the majority of the camera phones came from households having gross monthly income of Rs 5000-10000 as well as Rs. 20000 and above.

o *Mobile Phones in College Premises:*

Although mobile phones are strictly discouraged / prohibited, 80% of the boys owning mobile phones bring them to college. The figure for girls is slightly lower at 72.06%. Three quarters of mobile phone owning students (74.19%) thus bring mobile phones to college. A very interesting finding was that of those bringing mobile phones to college, over one third of the students (34.78%) comprising of 25% of the boys and a much higher figure of 38.78% of girls do not switch off their cell phones in the college. The rest of the students (65.22%) comprising of 75% of the boys and 61.22% of the girls 'claim' that they switch off their cell phones in the college. An important point here is that although they claim to switch off their cell phones so as not to receive calls, they do switch them on often in college for making calls or for sending an SMS.

o *Mobile Phone 'Addiction':*

As many as 40% of the boys revealed that they could not do without their mobile phones. The figure was lower at 27.94% for girls. A total of almost one third of the students thus revealed that they just could not do without their mobile phones.

o *Reasons for Carrying Mobile Phones:*

The main reason quoted by 84.95% of the students for carrying and owning a mobile phone is "Usefulness". The figure was 96% in the case of boys and 80.88% in the case of girls. While in the case of boys the remaining 4% mentioned "Parents Pressure" as the primary reason for carrying their cell phones, in the case of girls 11.76% mentioned "Parents Pressure", 1.47% each quoted "Status" and "Peer Pressure" respectively, with the remaining 4.41% giving *no reason* for carrying their cell phones. Of those who at present do not have a cell phone but are 'going to go for one shortly' (*excluding* those who will go for one 'if provided under any attractive scheme'), 100% of the students, constituting of both boys and girls, said that they are going for one because of "Usefulness".

o *Cost of Cell Phones:*

With respect to the cost of cell phones used by students, Table 9 given below shows the details.

Table 9

	Less than Rs 3000	Rs. 3000-5000	Rs. 5001-8000	Above Rs 8000	No idea of the cost price of cell
Boys	5 [20%]	5 [20%]	7 [28%]	8 [32%]	---
Girls	12 [17.65%]	24 [35.29%]	15 [22.06%]	14 [20.59%]	03 [4.41%]
Total	17 [18.28%]	29 [31.18%]	22 [23.66%]	22 [23.66%]	03 [3.23%]

Table 9 given above reveals that while more boys possessed cell phones costing Rs 8000 and above (the cost of cell phones carried by students were as high as Rs 35,000), in case of girls the major chunk was of cell phones costing within the range of Rs 3000 Rs.5000.

o   *Mode of Ownership of Cell Phones:*
Table 10 given below highlights as to how the students came to own their cell phones.

Table 10

Modes of Ownership	Boys	Girls	Total
Gifted	62.5%	75.38%	71.91%
Bought by self	16.67%	20%	19.10%
Left by somebody	8.33%	4.62%	5.62%
Borrowed	12.5%	----	3.37%

The above table reveals that whether it is the boys or girls, the majority have got their mobiles as 'Gifts'. Mobiles purchased by 'Self' was a distant second to both, boys as well as girls.

o   *Mobile Phone Etiquette and Awareness Levels of Potential Health Hazards of Cell Phones:*
With respect to mobile phone etiquette and potential mobile health hazards, almost one third of the students comprising of 28% of the boys and a little over 32% of the girls informed that they were not aware of one of the two or even both. It is however pertinent to note here that although over two-thirds of the respondents claimed that they are aware of the etiquette and potential health hazards, a large number of them did not have adequate knowledge of the same. Besides, the degree of knowledge also varies widely amongst students.

o   *Awareness of Tariffs...:*
When it came to awareness of different rates / tariffs for SMS, STD calls, roaming calls, mobile to mobile rates, mobile to land line / WLL rates and so on, although only 12.90% informed (16% boys and 13.24% girls) that they were totally unaware of the same, a large number of the remaining 87.10% although claiming full awareness of the various rates as applicable - had no knowledge, erroneous knowledge or insufficient / partial knowledge.

o   *Purpose of Carrying Cell Phones:*
The main purpose why students carry / use mobile phones, as the survey revealed is to "Receive' calls. Table 11 given below highlight the details.

Main Use of Cell Phone	Table 11	
	Boys	Girls
Receiving calls	41.67%	55.22%
Making calls	16.67%	8.96%
SMS	4.16%	7.46%
Receiving + Making Calls	25%	4.48%
Receiving Calls + SMS	---	8.96%
Receiving Calls + Making Calls + SMS + Photos	12.50%	14.93%

From Table 11 given above, two points are striking: *1]* 51.65% of the total mobile users (41.67% boys and 55.22% girls) have said that the primary reason for carrying a cell is to "Receive Calls", *2]* While 25% of the boys use their cells for both "Receiving and Making Calls", only 4.48% of the girls do so, and *3]* while more girls 'receive calls', more boys 'make calls'. *Probably it is a case of boys making calls to girls!*

While studying the primary purpose of carrying cells, two other important observations were also brought to the fore. *Firstly*, although 50% of the boys and 21.62% of the girls said that they primarily used their cell phones only for "Receiving calls", their actual monthly bills were higher than the scheme they opted for per month. This proves that the said students used their mobiles knowingly or unknowingly for other purposes too including to "Make Calls". It should be remembered that at present, "receiving calls" are not charged - they are free. In no way therefore could the monthly bills have gone higher than the opted scheme since incoming calls are free. *Secondly*, an overwhelming majority of 100% boys and 81.08% girls who informed that they primarily use their cells only for "Receiving Calls" actually spent over Rs 200 per month on their mobile phone bills. In case of boys, while 40% got monthly bills of over Rs 350, 60% spent between Rs 200 - Rs 349. The corresponding figure for girls was 43.24% and 56.76% respectively. The point of the matter is that majority of the students go for expensive schemes per month - although they claim to primarily use the cells only for "Receiving calls". (This happens in times when there are various schemes of different service providers providing cell phone connections at much lower monthly rates).

o   *Monthly Mobile Phone Bills Break-up:*
The break-up of the monthly bill amount of the cell phone users into different slabs is shown (in percentage terms) in Table 12 given below:

Table 12

Bill amt. per month	Up to Rs 150	Rs 151-249	Rs 250-349	Rs 350-449	Rs 450-549	Above Rs 550	'Lifetime'
Boys	--	40	8	28	16	8	---
Girls	8.82	32.35	7.35	39.71	---	10.29	1.47
Total	6.45	34.41	7.53	36.56	4.30	9.68	1.07

The following observations can be drawn in connection with the monthly bills as shown in Table 12: *1]* 50% of the total students, boys and girls included, have monthly bills of Rs 350 and above; *2]* While 8.82% of the girls have gone for Rs 150 or less scheme per month, no boy has done so; *3]* Close to 10% of the students have a monthly bill of Rs 550 and above; *4]* Although no girl has gone for Rs 450-549 scheme, the figure for boys and girls for schemes ranging from Rs 350 and above are more or less the same.

It is apt to mention here that for certain students the mobile bills per month are very high on a regular basis too - as high as even Rs 3000 per month as was the case of one student. It is also pertinent to mention that the billing pattern per month of students having bills of Rs 350 and above, based on the monthly household income, shows no definite pattern. The students are more or less equally distributed across all income categories excluding the Below Rs 5000 category (in which case there are very few).

o   *Payment of Cell Phone Bills:*
The monthly bills of mobile phones used by students are paid as per the information given in Table 13 given below:

Table 13

	Parents Pay	Paid by Self	Parents + Self Pay	Others
Boys	72%	16%	4%	8%
Girls	60.29%	22.06%	5.88%	11.76%

Table 13 reveals that in case of the majority of the students (72% boys and 60.29% girls), it is the "Parents" who pay the monthly mobile phone bills of their children. Paid by "Self" is the next mode, albeit a distant second for both boys and girls.

In the case of almost 80% of the boys as well as girls, the study showed that the parents *fully approve* their children's phone usage and bills. It is to be highlighted here that this is in spite of the fact that the parents are in no uncertain terms informed about the college rules governing mobile phones. An interesting finding of the study was that in the rest of the remaining cases where parents do not approve of their

children's mobile phone usage / bills, 80% of the parents in case of boys still pay the monthly bills. However this figure drastically drops in case of girls to 42.86%. In the rest of the cases where parents do not approve, the students themselves pay (by "Self") with some odd cases where "Others" comprising of brother, sister, uncle etc. also help in making the payments.

Related to the issue of who will pay the bills in the case of those students who do not currently have mobiles but are going to "go for one shortly" or "if provided under an attractive scheme", an overwhelming majority of 62.5% of the boys and 78.57% of the girls responded that their parents will pay their monthly bills. In the remaining cases of 37.5% boys and 21.43% girls, the students say that they themselves will pay the bills.

In the case of boys who have their cell phones on account of purchasing the same by "Self", 50% pay their mobile bills by "Self". In the case of the remaining 50% the parents pay the bills. With respect to girls, of those who bought their cell phones by "Self", in the case of 50%, "Parents" pay the bills. In the case of one third of the girls, the bills are paid by "Self", and in the rest of the cases, the bills are jointly paid by "Self and Parents" or "Self and Others".

Conclusion

As the study shows, we are presently living in times where we cannot wish away the use of mobile phones in general and among students in particular. And it does not matter whether we are talking of boys or girls. In spite of the strict college rules discouraging and / or prohibiting the use of mobile phones, the current usage of the same is rapidly nearing the 50% mark with the majority of them taking their cell phones to their college (a substantial number of these do not even switch off their cell phones). And if one goes by the indication of the students who currently do not own a cell phone, a large number of them are either 'going for one shortly' or 'if provided under any attractive scheme'. This leads to a whooping figure of almost 80% of the students who have or will have mobile phones of their own *shortly*. Already a substantial number of students have become addicted to their cell phones to the point that they are spending huge sums to pay their monthly bills.

A '*disturbing*' or one may say interesting trend observed is that most of the parents besides being fully aware of their children's mobile phone usage / bills, in fact also approve of the same, and, it is they who mostly pay the bills of their children. In spite

of being told in no uncertain terms about college rules regarding mobile phones, it is mainly the parents who gift their children with the same.

The findings of the study show that there is a need under the present circumstances, for the rules set by colleges to be relooked into and reviewed. Banning mobile phones completely seems to be out of question not only because of the magnitude of students involved but also on account of "usefulness" that is quoted by students and due to the overwhelming 'patronage' by / of the parents.

Possibly what is required to be done is to strictly prohibit the students from using their mobile phones in classrooms, laboratories, examination halls, libraries and corridors (and permit them to use the same only outside the college premises or say in certain demarcated zones like the canteen during interval time / off-lecture time). Setting up of more pay phones in colleges and keeping *dedicated lines* exclusively to receive parents calls in emergencies could also help.

Special care has to be taken by college authorities to see that the vast numbers of camera phones are not misused. Possibly the students could be given the option that if they carry mobile phones, besides strictly conforming to the pre-set guidelines as to their usage, they should not carry camera phones. As was seen in a number of places in India, these phones are prone to be used for malafide purposes including filming indecent stuff and then sending MMS clips.

What could also be done is to have an orientation for the parents (for it is they who primarily pay the bills besides gifting cell phones) and students about college guidelines, mobile phone etiquette, potential health hazards and on the economic issues related to cell phones (like cost of cells, tariffs, monthly bills, availability of cheaper alternatives to mobiles like pay phones etc).

It may be to the greater good that besides colleges and managements of institutions, the Goa University along with possibly even the Department of Education and Higher Education come together to chalk out an appropriate, uniform and effective plan / guideline / policy with respect to mobile phones, meant for all educational institutions. Absence of a common platform could lead to serious consequences like extortion, blackmail, pornography, unhealthy distractions, peer pressure, pressure on parents etc.

The time has come to act...and to act correctly, efficiently and effectively. Once the cell phone rules are in place they should be rigidly, sincerely and systematically enforced and monitored.....otherwise the purpose will be defeated.

Notes:

1. The rules concerning the same are well announced in different ways to students as well as parents - before, during and post admission. The main form of penalty for carrying / using mobiles is confiscation of the same.... to be returned at the end of the academic year or on calling of the parents to collect the same after a strict warning and written undertaking.

2. Going for one within 12 months.

3. This category is an important category which cannot be excluded while studying the issue of mobile phones in colleges. As can be seen there are a large number of students ever ready to go for a cell phone of their own if provided for under any attractive / low installment scheme and currently there are a number of such schemes, tailor made for college students, provided practically by all service providers including the State owned BSNL.

4. A PC is recorded as a minimum 'necessity' especially since there exists in Goa, the government sponsored *Cyberage Scheme* through which very large numbers of students / households have become beneficiaries of personal computers.

<div align="center">* * * * *</div>

References / Additional Readings:

1. Falleiro Savio: *"Cell Phones in College Campuses"* in *Goa Today*, November 2006.

2. Falleiro Savio: *"Students' CELLebration"* in *Weekender (A Gomantak Times* publication)*, 10* December 2006.

3. Falleiro Savio: *"Mobile Phones and College Students"* in *Digital Family* (A *digITal Goa* publication); Vol. II; Issue No. 28; Dec. 1-15, 2006.

4. http://economictimes.indiatimes.com/articlelist/

5. http://www.newsnmuse.com/images/cellphonestudy.pdf

6. http://www.domain-b.com/industry/telecom/

7. http://news.bbc.co.uk/2/hi/

ACADEMIC STAFF COLLEGE : A TOOL FOR ACADEMIC EXCELLENCE OF THE LECTURERS…?

Mr. Juao Costa
Department of Commerce

The academic staff college mainly trains the lecturer and the administrators of educational institution of higher studies by organizing various courses of three to four weeks duration .The present article makes an attempt to discuss the formation and growth of ASC of HP University , Simla.

Introduction

Human resource development is increasingly recognized as a very important activity in most organizations and University system is no exception. A rapid change in the environment poses a several challenges and problems to the system such as arrival of foreign universities, migrating of creamy layer of the students to other countries for higher studies, internal competition among various professional and non professional colleges. One has to equip one self to safe guard against these threats (J.P.Sharma, 2006).

. Prior to 1987, there was no systemic effort by the universities in this regards. The ASC (Academic staff college)mainly trains the newly appointed lecturers through orientation courses of four weeks, refreshes the existing lecturers on different contemporary issues through refresher courses of three weeks and provides the training to the administrators of educational institution of higher studies.

Methodology

A survey of perceptions of the teachers about the relevance of the refresher course attended by them was conducted by administering a structured questionnaire on a sample of lecturers , senior lecturer , lecturers in selection grade/readers belonging to different colleges all over India who attended refresher course number 165 at

academic staff college, Himachal Pradesh University ,Simla. There were 35 participants from 11 states.

A 5-point likert scale was used to gather the views of participants on various aspects of the refresher course, and its administration. The available data was grouped in three categories - Agree, Neutral, Disagree and then analyzed with the help of percentage.

The references of various research articles, literatures on the same topic provided useful information.

Formation of Academic Staff Colleges

Education indeed plays a pivotal role in the process of socio-economic development of every nation and it has a very close link with the nation's economic development. Faculty is regarded to be an important tool in educational process. Continuous enhancement and up gradation of a conceptual knowledge, practical skills and competencies of faculties in their respective specialized subjects in order to ensure a quality education to younger generation has obviously become the greater concern of all academic institution across the globe. Various commissions and committees on education also stressed the need of a continuous professional development of the teaching faculty. The Deshmukh committee, Education commission (1964-65), the Sena committee ,the Kothari commission, NPE (1986), rightly pointed out in one or other notes the importance of the teacher in the development and moulding of a student into a responsible and enlightened citizen of the country.

An ordinary human being cannot do justice to this profession unless he is meticulously prepared for it. One or two talented and creative teachers may be born, but we need thousands of ordinary mortals to work as teachers. There is a need to prepare, educate and motivate them. To keep the teacher conversant with all round developments in his profession is the need of an hour. The explosion of the information system can be taken only to the classrooms of higher educational institutions once our teachers' generation keeps itself update with this development. There fore there is a need to organize some programs with inputs for the academic growth of a teacher.(B.B. Dhar & T.Singh,1990)

As far back as 1949, the university education commission had officially mooted the idea of educating university teachers in order to improve the education system of the country. The commission had argued that the success of the educational process depends on the character and ability of the teacher that in any plan of university

reform the main concern should be to prepare teacher for:

a) transmission of the intellectual and ethical heritage of humanity to the young

b) enrichment of his heritage and extension of the boundaries of knowledge

c) development of personalities.

In this regard the Education Commission (1964-66) was very clear in recommending the establishment of orientation programmes for university and college teachers. In the words of commission "an important point of emphasis would be the reorientation of university teachers to adopt new and improved techniques of teaching and evaluation. A programme of seminars, discussions or workshops should be organized to serve as the spearhead of the reform"(Education Commission 1964-65) The same commission had suggested the following principles on which education of teacher should be attempted:

a) orientation of subject knowledge

b) vitalization of professional studies

c) improvements in methods of teaching and evaluation

d) development of special courses and programme

e) revision and improvement of curricula

Unfortunately, the proposition of establishing Staff College for the orientation of university / college teachers was pending for almost two decades

The National policy on Education (1986) made a pointed reference to the crucial link between teacher motivation and quality of education. The need for improving the status of a teacher has been recognized and it has been envisaged that through professional and career development, teachers can fulfill their role and responsibility within the educational system. The then pay revision of June 1987 made it mandatory for teachers of colleges and universities to undergo one or two orientation courses while qualifying for higher position or grades. With this background, academic staff colleges at 48 educational institutions of higher education came in to existence

The following table gives an indication of the number of training programmes conducted by these ASC and other institutions

Table 1: Programmes conducted by ASCs

Year	Orientation course	Refresher course	Total
1997-98	114	485	599
1998-99	163	591	754
2001-02	225	638	863
2004-05	245	738	992

(**Source:** UGC estimates)

According to the UGC guidelines the colleges established have certain functions and objectives to be achieved. Each college is free to adopt its own curriculum within the boundaries set by the UGC which are

❖ The courses should be inter-disciplinary in nature.

❖ They should not be like usual teacher training colleges.

By keeping these two principles in mind, the following objectives and functions were designed

Objectives of ASC

1) To understand the significance of education in general and higher education in particular, in the global and Indian context.

2) To understand the linkages between education and economic and socio-cultural development with particular reference to Indian policy.

3) Acquire and improve basic skills of teaching at college/University.

4) Be aware of development in his/her specific subject.

5) Utilize opportunities for development of personality, initiative and creativity.

Functions of ASC

1) Orientation programmes for newly appointed lecturers

2) Refresher programmes for serving teachers

3) Orientation programmes for Heads of department, Principals, Deans etc

4) Evaluation and monitoring of programmes and their implementation

5) Maintenance of systematic records of all the participants and their achievements, professional growth, and their capabilities

6) Recommendation for confirmation and promotion of teachers on the basis of successful completion of their course and their performance

Review of Literature

On the recommendation of NPE (1986) and various other academic commissions' setup before for the purpose, the concept of Academic Staff College came into existence in the year 1987. At present there are is 51 colleges providing orientation, refresher, and other courses to the newly appointed lecturers, existing lecturers, Principals and Heads of institutions. Since then various articles, research papers have been written and presented.

College and University teachers are facing various problems in day to day teaching life which requires systematic orientation. This should be linked to their career advancement but with flexible approach (Rajendra Pal, 1996).

Less number of seminars, group discussions, lack of Audio-visual aids, less time for self-study, insufficient hostel facilities in some colleges, poor financial benefits to participants, resource persons and coordinators etc. hinders the quality of input and output (Das and Pathak, 1997).

It is high time that the UGC carries out a systematic evaluation based on both quantitative and qualitative dimensions so that quality of education in general and higher education in particular is improved. While evaluating the performance of Academic Staff Colleges, one has to take into consideration the constraints, facilities, innovations and local conditions directly determining their efficiency and effectiveness. The academic staff colleges are service institutions aiming at improving the professional competencies of teachers (Yoginder Verma, 1998).In china, the task of training the teachers at all level is entrusted to Normal education (Ren Vouquen, 2006)

The studies mainly include performance evaluation of orientation courses, refresher couses in particular and academic staff colleges in general (Rajendra Pal , 1996 ;Das and Pathak, 1997 ; Yoginder Verma , 1998 ;S.B.Advani,1998;Patil and Joshi,1998;Das and Ahmed ,1999;V.V.Sail,1999;J.P.Sharma ,2006;J.P.Sharma and Tanushree,2006).

The present article tries to find out the perception of teachers towards refresher course from different angles, which includes overall effect, resource persons and infrastructures.

ACADEMIC STAFF COLLEGE , H.P UNIVERSITY, SIMLA.

The academic staff College of HP University came on to existence in June 1989. It conducted it first orientation programme in September 1989. Since then the college conducted various programme.

The following tables will give an idea about various programme conducted by the college

Table 2: Gender and caste wise composition of Teachers in different programmes (September 1989 to October 2000)

Type of programmes	Nos. of programmes	Male	Female	SC	ST	Total
A.Training Programmes Orientation Programmes	52	1017	350	62	21	1367
Refresher courses	90	1954	604	145	45	2558
Induction training Programme	3	61	11	9	3	72
Seminar for Principals	2	45	3	3	2	48
ASCs Directors meet	1	36	3	0	0	39
Work shop for Registrars	1	32	3	2	2	35
Total	149	3156	979	221	73	4135
B. special lectures and work shops	6	2638	520	-	-	3158

(**Source:** Academe , ASC Simla)

Table 3: Orientation programmes conducted by ASC
(1 Sept 1989 to Sept 2005)

Year	No. of Courses	No. of Participants	Men/Women
1989-90	3	71	49/22
1990-91	3	73	59/14
1991-92	4	92	66/26
1992-93	3	78	61/17
1993-94	5	100	79/21
1994-95	5	122	85/37
1995-96	4	99	80/19
1996-97	5	100	71/29
1997-98	6	157	126/31
1998-99	5	145	108/37
199-00	5	162	115/47
2000-01	5	203	143/60
2001-2002	5	243	172/71
2002-2003	5	203	140/63
2003-04	4	150	96/54
2004-05	5	238	158/80
2005-06	4	149	118/31
Total	76	2385	1726/659

(Sources : academe , ASC , Simla)

Table 4: Year wise details of refresher courses held up to OCT. 2005

Year	No.of Programmes	Total participants	Men	Women
1990-91	2	36	35	01
1991-92	4	88	71	17
1992-93	5	152	135	17
1993-94	4	103	82	21
1994-95	6	125	95	30
1995-96	10	262	214	48
1996-97	14	307	241	66
1997-98	10	281	214	67
1998-99	13	443	342	101
1999-00	13	416	313	103
2000-01	12	487	307	180
2001-02	13	531	379	152
2002-03	14	508	393	115
2003-04	14	492	348	144
2004-05	12	518	369	149
2005-06 Up to Oct.	08	325	183	142
Total	154	5074	3721	1353

(Source : Academe, ASC, Simla)

Analysis and Discussion
34 participants attended the refresher course number 165 at ASC, Simla from eleven states.

Table 5:

The following tables will give a brief idea about the refresher course classified according to the experience of the lecturers.

A) About overall effectiveness

1) Contents of the course : current, relevant to my academic interest and use full

Category	Disagree	Neutral	Agree	Total
Lecturer	-	2 (28.57)	5(71.42)	7
Sr. Lecturer	1(4.76)	4 (19.04)	16(76.19)	21
Lecturer in selection grade	2(33.33)	1(16.66)	3(50)	6

2) The entire session : Fully interactive, live and very much informative

Category	Disagree	Neutral	Agree	Total
Lecturer	1(14.28)	-	6(85.71)	7
Sr. Lecturer	1(4.76)	2(9.52)	18(85.71)	21
Lecturer in selection grade		1(16.66)	5(83.33)	6

3) Participants of the course : active participation and cooperative

Category	Disagree	Neutral	Agree	Total
Lecturer	-	-	7(100)	7
Sr. Lecturer	-	1(4.76)	20(95.24)	21
Lecturer in selection grade	1(16.66)	-	5(83.33)	6

4) Overall I would rate the course as the best that I ever attended

Category	Disagree	Neutral	Agree	Total
Lecturer	-	1(14.28)	6(85.75)	7
Sr Lecturer	1(4.76)	1(4.76)	19(90.47)	21
Lecturer in selection Gr	1(16.66)	1(16.66)	4(66.66)	6

B) About the resource person

5) Contents of the topic : current and up to date, adequate, relevant and clear

Category	Disagree	Neutral	Agree	Total
Lecturer	2(28.57)	1(14.28)	4(57.14)	7
Sr. Lecturer		7(33.33)	14(66.67)	21
Lecturer in selection grade	3(50)	1(16.66)	2(33.33)	6

6) Presentation style: Fluent, clear, and audible during presentation

Category	Disagree	Neutral	Agree	Total
Lecturer	1(14.28)	-	6(85.71)	7
Sr. Lecturer	1(4.76)	4(19.04)	16(76.19)	21
Lecturer in selection grade	1(16.66)	2(33.33)	3(50)	6

7) Attitude: friendly, cooperative, supportive and interactive in the class

Category	Disagree	Neutral	Agree	Total
Lecturer	-	1(14.28)	6(85.71)	7
Sr. Lecturer	-	1(4.76)	20(95.24)	21
Lecturer in selection grade	-	2(33.33)	4(66.64)	6

8) Language style : Fluent, clear, and audible

Category	Disagree	Neutral	Agree	Total
Lecturer	-	-	7(100)	7
Sr. Lecturer	-	-	21(100)	21
Lecturer in selection grade	-	1(16.66)	5(83.33)	6

C) About the infra structure

9) The infra structure availability was sufficient

Category	Disagree	Neutral	Agree	Total
Lecturer	-	-	7(100)	7
Sr. Lecturer	-	1(4.76)	20(95.24)	21
Lecturer in selection grade	1(16.66)	-	5(83.34)	6

10) The hospitality facilities were quiet good

Category	Disagree	Neutral	Agree	Total
Lecturer	1(14.28)		6(85.71)	7
Sr. Lecturer	5(23.80)	4(19.04)	12(57.14)	21
Lecturer in selection grade	1(16.66)	2(33.33)	3(50)	6

11) ASC staff was cooperative, helpful, and always approachable

Category	Disagree	Neutral	Agree	Total
Lecturer	-	-	7(100)	7
Sr. Lecturer	-	1(4.76)	20(95.24)	21
Lecturer in selection grade	1(16.66)	1916.66)	4(63.49)	6

12) Educational tour organized by the college was informative and purposeful

Category	Disagree	Neutral	Agree	Total
Lecturer	-	-	7(100)	7
Sr. Lecturer	3(14.28)	2(9.52)	16(76.19)	21
Lecturer in selection grade	1(16.66)		5(83.34)	6

Classification of data according to the Gender

A) About overall effectiveness

1) Contents of the course :current, relevant to my academic interest And use full

Category	Disagree	Neutral	Agree	Total
Male	3(11.11)	6(22.22)	18(66.66)	27
female	-	1(14.28)	6(85.27)	7

2) The entire session: Fully interactive, live and very much informative

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)	3(11.11)	23(85.18)	27
female		1(14.28)	6(85.27)	7

3) Participants of the course: Active participation and cooperative

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)	1(3.70)	25(92.60)	27
female			7(100)	7

4) Overall I would rate the course as the best that I ever attended

Category	Disagree	Neutral	Agree	Total
Male	2(7.40)	3(11.11)	22(81.48)	27
Female			7(100)	7

B) About the resource persons

5) Contents of the topic : current and up to date, adequate, relevant and clear

Category	Disagree	Neutral	Agree	Total
Male	7(25.92)	5(18.51)	15(55.55)	27
Female		1(14.28)	6(85.72)	7

6) Presentation style: Fluent, clear, and audible

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)	6(22.22)	20(74.07)	27
Female	1(14.28)	1(14.28)	5(71.42)	7

7) Attitude: Friendly, cooperative, supportive and interactive in the class

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)	3(11.11)	23(85.18)	27
Female			7(100)	7

8) Language style: Fluent, clear, and audible

Category	Disagree	Neutral	Agree	Total
Male		1(3.70)	26(96.30)	27
Female			7(100)	7

C) About the infrastructure

9) The infrastructure availability was sufficient

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)		26(96.30)	27
Female			7(100)	7

10) The hospitality facilities were quite good

Category	Disagree	Neutral	Agree	Total
Male	8(29.62)	4(14.81)	15(55.55)	27
Female		1(14.28)	6(85.72)	7

11) ASC staff was cooperative, helpful, and always approachable

Category	Disagree	Neutral	Agree	Total
Male	1(3.70)	2(7.40)	24(88.88)	27
Female			7(100)	7

12) Educational tour organized by the ASC was informative and purposeful

Category	Disagree	Neutral	Agree	Total
Male	4(14.81)	1(3.70)	22(81.48)	27
female		2(28.57)	5(71.43)	7

Conclusion

From the above tables, the author could draw few conclusions:

A) **Overall Effectiveness:** On an average 87% of Senior Lecturers were found to agree on overall effectiveness of the course while 70% of Lecturers of selection grade found the course contents, sessions, and participants of the course not very interesting.

B) **Resource Persons:** With respect to the resource persons, again the lecturers in selection grade (58%)were not happy whereas 85% of Senior Lecturers were happy with the resource persons. It was further noticed that the language was not a major issue among all categories of lecturers.

C) **Infrastructure:** Most of the lecturers felt that the infrastructure facilities provided were sufficient with cooperative staff while most showed discontent on the hospitality facilities.

It was further noticed that between male and female lecturers, females were more responsive and felt that refresher course was overall very effective, had no grievances about infrastructure facilities except for hospitality. Males were more vocal and disagreed over all aspects of the course

Scope For Further Studies

There were two important lacunae the sample size was comparatively less, and the respondent' males and females were not proportionate. There is a scope to improve the present article by taking sizable number of respondents preferably from different colleges simultaneously.

Suggestions

The author attended one Orientation course and three refresher courses. Based upon the experience, the following suggestions are made

1) The college must provide good study environment which consists of a good class room, audio-visual aids, library facilities, etc.

2) The course must be fully residential even for local participants to make it more interactive specially during off time.

3) There should not be any restriction on number of courses to be attended

4) Resource person must be well informed, tolerant and must have patience towards participants. Honorarium to the resource person needs to be increased.

5) It must be made obligatory to the participants to attend the course outside the state to sensitize one self about the conditions of other Universities and Colleges.

6) An evaluation of the participants by the college must be sincere, serious, and transparent and should not be a mere formality. To make the participants more serious, day today open evaluation is advisable.

7) The college must make an arrangements for the refreshment, lunch and dinner of the participants.

8) An educational tour should not be a mere statutory requirement and must be made purposeful and compulsory even for local participants

9) The topics selected for refresher course must be current and relevant to the participant's interest.

10) Micro teaching must be made compulsory to the participants

11) Besides tests and seminars, the participants must be given a project to complete during the course.

12) The duration of the course must be reduced to two weeks in order to avoid the mental fatigue and to get best out of participants.

13) Topics on stress management, yoga and meditation must be covered up in the content of the course.

References:

1. Advani S.B., UGC sponsored refresher courses, Some suggestions, University news, Vol. 36, No.14, April 1998.

2. Das and Pathak, Orientation program and the Professional awareness of teachers, University news, Vol.35, No.51, Dec.1997

3. Das and Ahmed, Attitude of University and college teachers towards Orientation program, University news, Vol.37, No.36, and Sep.1999.

4. Dhar B.B. and Singh T. , Academic staff colleges-A developing concept, Sterling publishers Pvt.Ltd., New Delhi,1990.

5. Datta Jayanti, Shift in opinions/attitudes of participants of general Orientation program,Academe, UGC Academic staff college Simla, Vol. 11, No. 1, Jan.2006.

6. Joshi and Patil, "Refresher course", An opportunity for improvement in Academics of teachers, University news, Vol.36, No.11, March 1998.

7. Maheshwari L.K. and Dash Motilal, Faculty development in professional educational institutions in India, University news, Vol.44, No.17, April 2006.

8. National Policy on Education-1986, Ministry of Human resource development, government of India New Delhi.

9. Patil M.R. and Arolkar D.B., Faculty development: An avenue to quality enhancement in Higher education, University news, Vol.44, No.25, June 2006.

10. Pal Rajendra, Academic orientation of University teachers: A qualitative enquiry, University news, Dec.16th,1996.

11. Sail V.V., Orientation / Refresher courses: A participant's evaluation, University news, Vol.37, No.15, April 1999.

12. Sharma J.P., Training and development of the Academic staff: A study, University news, Vol.44, No.11, March 2006

13. Sharma J.P. and Jain Tanushree, Academic staff colleges :An assessment, University News, Vol.44, No.30, July 2006.

14. Verma Yoginder, Evaluation of Academic staff colleges: Certain criteria and issues, University news, Vol.36, No.18, May 1998.

15. Verma Yoginder, Teacher empowerment for Quality education, Academe, UGC Academic staff college Simla, Vol. 11, No. 1, Jan.2006.

16. Youqun Ren, Teacher education and curriculum in China , University news, Vol.44, No.6, Feb 2006.

CHAIKIN'S ALGORITHM AND SUBDIVISION

Ms. Neeta Mazumdar
Dept. of Mathematics

Chaikin algorithm can be used to generate a quadratic uniform B spline curve, this article gives the simple scheme by which a curve can be generated from given control polygon through a divide and conquer approach whose basic operation is generation of midpoints on the curve.

Introduction:

Curve generation methods are an important topic in computer graphics and geometric modeling.

A new set of methods is now becoming popular which utilize a control polygon as in the Bezier or B-spline cases, but instead of using analytic methods to directly calculate points on the curve, these methods successively refine the control polygons into a sequence of control polygons that, in the limit, converge to a curve.

By doing this, freedom from a closed form of mathematical expression is achieved and a wide variety of curve types can be expressed. The curves are commonly called Subdivision curves.

The general idea behind Subdivision curves is to utilize the points generated through the refinement as input to another refinement operation and then to continue this process till a refinement is reached that actually represent the curve to a desired resolution.

As it turns out, curves are fairly straightforward and the interesting cases are surfaces and solids where the topology of the underlying control mash can be quite complex. However, the curve cases are easier to represent.

Chaikin's algorithm for curves

George Chaikin [1] gave a novel procedure for generating curves from a limited number of points. This algorithm is interesting as it was one of the first corner cutting or refinement algorithms specified to generate a curve from a set of control points or

control polygon, Chaikin's curve has been shown to be equivalent to a quadratic B spline curve[2], however it avoids the analytical definition of B spline and provides a simple, elegant curve drawing mechanism.

Chaikin's method

Chaikin's utilized fixed ratios on cutting off corners of the polygon so that they all were cut same. Mathematically are can proceed as follows:

Given a control polygon $\{P_0, P_1 \ldots P_n\}$ we refine this control polygon by generating a new sequence of control points $\{Q_0, R_0, Q_1, R_1 \ldots Q_{n-1}, R_{n-1}\}$ where, each new pair of points Qi, Ri are to be taken at a ration of ¼ and 3/4 between the endpoints of the line segment.
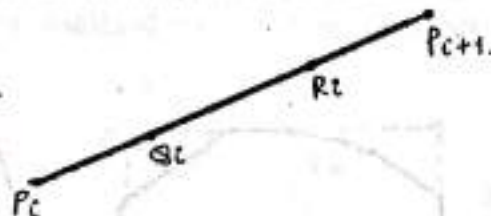
Ie. $Qi = 3/4P_i + 1/4P_{i+1}$

These 2n new points can be considered for a new control polygon.

Working of Chaikin's Algorithm.

Consider the following control polygon
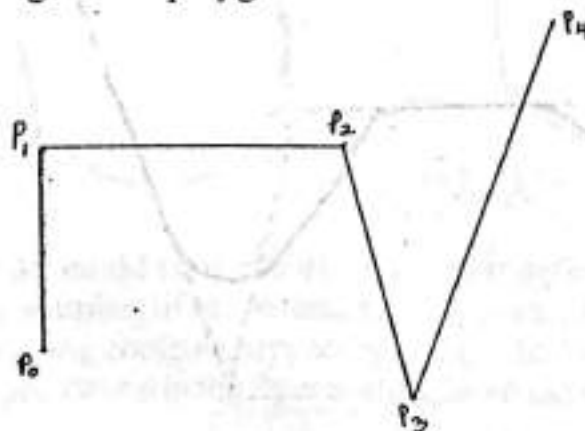
Chaikin's algorithm generates the points Q, & R, and uses these points to refine the curve and obtain the control polygon as shown below.
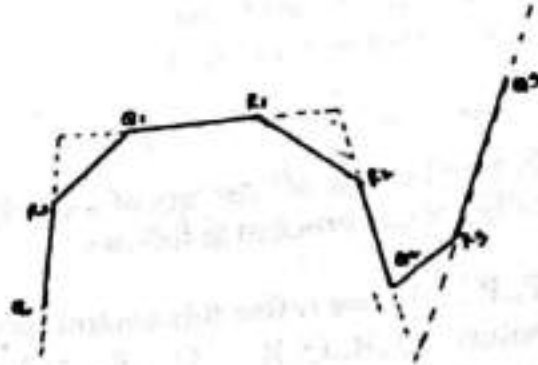
These points are in turn utilized to generate a new refinement.
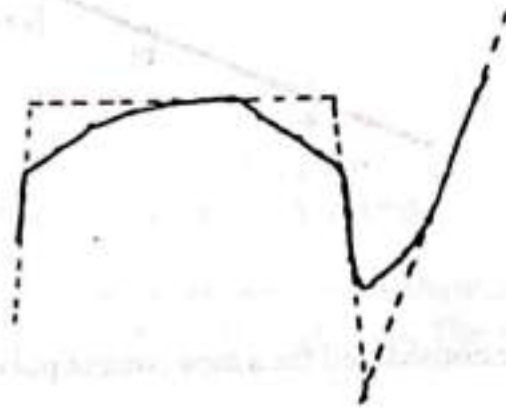
Continuing with refinements finally the curve becomes,
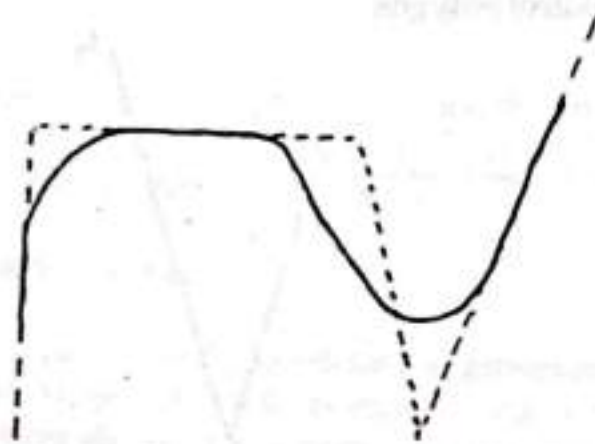
Example: A closed curve

To illustrate Chaikins curve on a closed control polygon, consider the following Figure
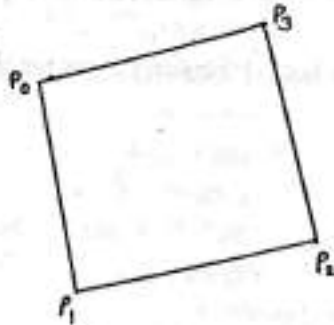
In this case, the control point indices are taken modulo n+1 (or 4 in the case of figure). We can apply Chaikins method to this figure, obtaining
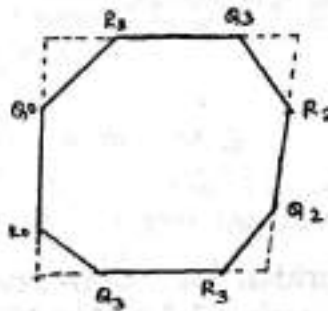
This new control polygon can then be utilized to obtain 2nd refinement as shown below
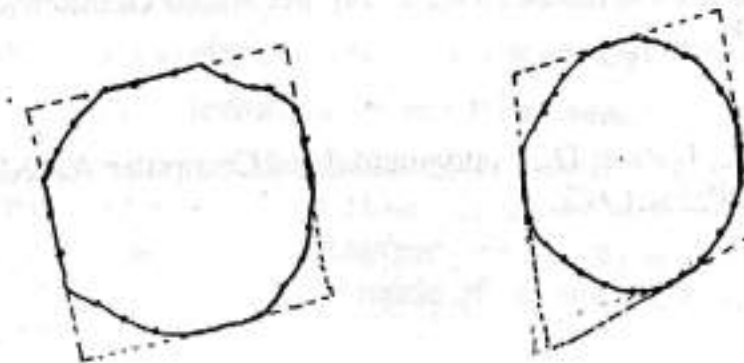
And it is clear that we could continue this process indefinitely. For graphic purpose we will stop after a number of refinements and approximate the cure by connecting the points of the resulting control polygon by straight lines. The initial control and the second refinement are shown in the figures along with the resulting curve.

Thus Chaikin specified a simple scheme by which curve could be generated from a given control polygon. The idea is unique in that the underlying mathematical description is ignored in favour of a geometric algorithm that selects new control points along the line segment of the original control polygon.

It is quite interesting to note that Chaikin's curve has been shown equivalent to a quadratic B spline curve [3].

Conclusion:

Chaikin specified a simple scheme by which curves could be generated from a given control polygon. It is noted that Chaikin's curve has been shown to be equivalent to a quadratic B spline curve. It provides a simple, elegant curve-drawing mechanism and avoids the analytical definition of B splines.

Reference:

1. G.M. Chaikin. An algorithm for high-speed curve generation, Computer Graphics and Image Processing, 3:346-349,1974.

2. Farin, Curves and Surfaces for Computer Aided Geometric Design, Academic Press, 1993.

3. Hosche, K., Lasser, D., Fundamentals of Computer Aided Geometric Design, Academic Press,1992.

TAX PLANNING UNDER VARIOUS INVESTMENTS

Ms. Shilpa Korde
Lecturer in Commerce

In this article, an attempt has been made to deal with tax planning through various investments .Section I deals with provisions under section 80C under Income Tax Act 1961. Section II emphasis on the review on special investments and Section III gives comparative study of investments and Section IV concluding observations.

Introduction

Tax planning is a well accepted device in the taxation laws for minimising the tax liability of a tax payer who can adopt it without any blame of penalty. The Income tax laws provides a number of exemptions, deductions and reliefs which may be used for minimising the tax burdens. Tax planning implies compliance with taxing provisions in such a manner that full advantage is taken of all tax exemptions, deductions, concessions and reliefs permissible under the Income tax act 1961 so that the incidence of tax is kept as low as possible.

Section I

Provisions of section 80C - The provision of section 80C are as follows:

A) Deduction under section 80C is available only to an individual or a HUF .

B) This deduction is available from the gross total income.

C) Amount which qualifies for deduction under section 80C, are same as those entitled to rebate under section 88. However, unlike in section 88, where there were sectoral limits, section 80C does not provide any such limit and taxpayer is free to invest in anyone or more mode of the eligible instruments but with overall ceiling of Rs. 1,00,000.

In brief, the following contributions/investments are eligible for deduction under section 80C

	Nature of investments	Payments Made By	
		Individual	HUF
1.	Life Insurance Premium-Maximum Premium 20%of sum assured	Self, Spouse, Child	Any member of HUF
2.	Contribution to Statutory or recognized provident fund	Self	NA
3.	Contribution to PPF-Minimum Rs. 500 and maximum Rs 70000 as per PPF rules	Self, Spouse, Child	Any member of HUF
4.	Deposits in Post office Saving Bank – Deposits in 10 years or 15 year deposit account not eligible	Self, Minor under his guardianship	Any member of HUF
5.	Subscription to National saving scheme 1992 and NSC VIII issue including interest Accrued	Self	Any member of HUF
6.	Contribution to Unit linked Insurance Plan of UTI/LIC and others continuous for minimum five years.	Self, Spouse, Child	Any member of HUF
7.	Subscription to Units of Mutual Funds/UTI	Self, Spouse, Child	Any member of HUF
8.	Contribution to annuity plans of insurance company- Jeevan Dhara , Jeevan Akshay etc.	Self, Spouse, Child	Any member of HUF
9.	Subscription to approved equity shares or debentures of a public company or public financial institution	Self	NA
10.	Term Deposits for a fixed period of not less than five years with a scheduled bank which is in accordance with a scheme frame and notified by the central govt. in the official gazette.	Self	NA

Section II
Review of special investments

1) **New scheme for fixed deposits deductible under Sec. 80C**

It is understood that the Fixed Deposit Scheme for investment in banks so as to be eligible for deduction under Sec. 80C has since been notified. The main features are as below.

Notification No. 203 dated July 28, 2006, has formulated a scheme for bank deposits, the income from which would be eligible for deduction under Sec. 80C.

The scheme is meant for individuals and Hindu Undivided Families(HUFs) for deposit in a scheduled bank up to a maximum limit of Rs. 1 lakh. But this deduction for the deposit is subject to the over-all ceiling of Rs. 1 lakh along with other deductions already available under Sec. 80C. Joint deposits are also permitted, but the eligibility for deduction will be only to the first holder. It is further clarified that the maturity period will be five years, with the money being locked up for this period without right to encashment prior to the date of maturity.

The interest income is not tax exempt. It will be taxable on accrual basis or receipt basis according to the regular method of accounting followed by the investor-assessee.

2) **Investments in mutual Funds.**

There are various Schemes under mutual funds which gives tax benefit. Some of these schemes are SBI Tax Gain, HDFC Tax Saver, HDFC Long Term Advantage Fund, Reliance Tax Saver. These schemes are called as Equity-linked saving schemes (ELSS). The lock in period of it is three years with a high risk and gives not assured returns. Some of these schemes have given maximum returns of 40-60% in the last 5 years.

3) **Investments in Shares or Debentures**

Investments in approved equity shares or debentures of a public company or a public financial institutions and the entire proceeds of the issue is utilized wholly and exclusively for power generation or infrastructure facility company and holding for minimum three years. Here also there is a high risk but has potential of giving high returns.

Section III
Comparative study of various investments schemes

Sr. no.	Nature of Investments	Risk	Returns	Liquidity
1	LIC	Negligible	Good	Till Maturity
2	PPF	Negligible	8-10%	15(+5)years
3	ULIP	Medium	NAV based	10 years
4	NSC, NSS	Negligible	8.5 - 9%	4- 7 years
5	Mutual Funds	Low to medium	High	3 years
6	Bank Deposits	Low	8%	5 years

Conclusion

The above analysis reveals that tax liability cannot be avoided after an income crosses Rs.1 lac. Therefore a fine balancing is done by the investor between the three objectives i.e. to earn a good return, to have minimum risk, and to enjoy the high liquidity. The choice will naturally depends on the personal considerations from person to person. A proper tax planning is very much helpful in minimizing the burden of income tax by various investments. Everybody must be familiar with the famous saying 'Do not put all eggs in the same basket' in context of investment of money. A little panning by the tax payer in regards to investments will help in availing income tax benefits.

References

a) The Journal Of Accounting And Finance , V 01.20,No.2 Aprilseptember 2006.

b) G.Sekar, Hand Book Of Direct Taxes 2006-07,Company Law Institute of India Pvt. Ltd.

c) Dr. Singhania Kapil (2006-07 & 2007-08), Income Tax Ready Reckoner, Taxmann Allied Services Pvt.Ltd,New Delhi.

FEMALE TIATRISTS - ROLE AND CHALLENGES

Ms. Meizie Mezel Barretto
Department of English

'Tiatr' is Goa most popular cultural form. The entry of women on the stage in Goa, the roles they play and the challenges facing them are discussed in this project. A lot needs to be done especially by the Government of Goa to improve the plight of women 'tiatrists' and 'tiatrists' in general.

Introduction :

'Tiatr' is one of the most popular and vibrantly alive cultural forms of Goa. It is a form that is rooted in the working class and lower middle class Goan Catholic population living in Goa or outside Goa. and expresses their trials and tribulations, hopes and aspirations.

The 'tiatr' which is a unique performing art has elements of drama, music, comedy and improvisation. In a typical 'tiatr' performance, there is a loose story line which is punctuated by side shows which consist of solos, duets 'cantaram', dances, comic skits and monologues. These are accompanied by a very loud Goan steel band which sits between the audience and the performers.

The plot of the tiatr is contemporary and set within the frame work of family and domestic life. Their structure is episodic, each individual scene is more or less an independent skit within an ongoing generalized frame work. The play works within a strictly Goan Christian moral context and reflects a complex set of attitudes which includes an intense pride for Goa and all things Goan, a strong belief in the sanctity of family life and an abiding faith in God and his church.

For the 'Tiatr' audience, Konkani is not merely a language, a means of communication, but a cause, a totemic symbol, a flag to rally around in fighting battles with the establishment and authority. At tiatr performances, the most enthusiastic and rousing response is reserved for the 'cantorist" who standsup and

calls the Konkani speakers to rouse themselves to fight battles for the mother tongue. Konkani.

Inspite of the immense popularity of the 'tiatr', critics, scholars and researchers have not paid enough attention to it. This neglect is partly due to the scorn with which an influential section of the Goan population regards this popular form of entertainment as being a vulgar expression of low taste. 'Tiatr' being the most vibrantly alive and commercially successful theatrical entertainment of the Goans, demands serious attention and inquiry into it. Popularity of this form suggests the existence of a shared, common set of values, attitudes, perceptions of the self and the world between the encoders (the performances) and the decoders (the audience). These common codes are a part of the context (the historical background the social and cultural institutions) and the text (tiatr performances). In a 'tiatr' the enactment of a story through action , words and music appears to be the most important constituent of a theatrical performance.

Birth of the Konkani 'Tiatr'.
From the beginning of the 19th century ie till 17th April 1892 the drama forms in Goa were the "zagor" and "khell". Both were musical plays performed on the grounds at streets corners, compounds and open spaces. There were no written scripts for these musical plays and the leader of the group used to relate the 'story' to the artists at the rehearsals, and the artists had to remember these dialogues and relate from memory. The artists were males wearing female attire and played all male and even female roles. For over hundred years this was the only "entertainment" form of Goa. "Zagor" was mainly prevalent in North Goa and the "khell" in South Goa.

In the beginning "Zagor" and "Khell" highlighted social themes but slowly down the years it started using current controversies, unhealthy criticism and character assassinations. Petty politics and vulgarity crept in and slowly "right" thinking people started staying away from it as "zagor" and "khell" were branded as morally cheap and vulgar forms of entertainment.

Today, khell-tiatrs are performed in Salcete during the Carvival season by the Christian community. The street side "zagor" gave way to the 'nataks' performed by the Hindu community.

Antonio Moraes along with Antonio Mariano took the 'khell' to the stage. Jerry Fernandes named 'khell' as 'khell tiatr'. Initially the khell story being of a shorter duration was performed in the form of two plays which were held on the same stage with an interval in between. Slowly that gave way to the single 'khell'-tiatr of three hours duration.

During the last quarter of the 19th Century the 'zagor' was performed in Bombay by the Goan settled there. This crude and vulgar form of entertainment became a matter of shame for the 'better placed Goans in Bombay. The zagor' was ridiculed by the non-Goans for being a cheap and unorganised form of Goan entertainment.

In the year 1890 a young boy, Lucasinho Rebeiro wrote bown the first ever 'tiatr' which was a translation of an Italian opera by Gonsalez Brothers. Lucasinho named it "Italian Bhurgo". He along with Caetaninho Fernandes, Joao Agostinho Fernandes, Augustinho Mascarenhas and another unknown actor laid the foundation by staging the first Konkani 'tiatr' on the 17th of April 1892. The troupe was named "Goan Portuguese Dramatic Company". Lucasinho after the first success translated more plays such as 'Aladdin ani tacho Ojeapancho Divo", Alibaba ani Challis Chor". "Carlos Magno" etc. It was Lucasinho Rebeiro who was also responsible in bringing the Konkani 'tiatr' to Goa. The very first Konkani tiatro was staged in Assagao in the year 1894. Other writers and directors of the 'tiatr' that deserve mention are ; Joao Augustinho Fernandes, Saib Rocha, Souzalin, Alexinho de Candolim, Souza Ferrao and Anthony D'sa.

Entry of Women in Goa.

Like all the stages the world over, the Konkani stage also started with the males playing the female roles. On November 22nd 1904 at Gaiety Theatre in Bombay a bold step was taken by a lady for the first time who appeared on the Konkani stage. The lady was non other than Regina Fernandes (wife of Joao Augustinho Fernandes better known as father of Konkani Tiatr) who acted in her husbands tiatr "Bhatkara". When Regina came on the stage there were no other women on the Marathi Stage. She was followed by Luiza Maria Fernandes. J.A. Fernandes being a far sighted man started the movement of bringing girls for female roles on the Konkani stage. Although there was great opposition and hesitation from different quarters several ladies took interest in stage work, namely Adelia Mendonca, Artimisia Almieda, Etelvina Menezes, Carlota D'Souza, Marietta Cardozo and Ermelinda.

Although this revolution was taking place on the Konkani stage ladies were not coming forward to act in drama. The males continued to play female roles. Some of male actors performed the role so perfectly that it was difficult to imagine that they were males. Vincent de Saligao, Ida Demiterio, Remmie Colaco, Andrew Fernandes, Master Vaz, Aristides Dias, Nelson Afonso, Minguel Rod, Luis Rod, Champion Peter and Christpher Leitao have earned laurels doing female roles on the Konkani stage. The credit of bringing ladies on the stage also goes to C. Alvares. Some of these became noted actors of the stage namely Miss Mohana, Shalini, Filomena, Carmen, Cecelia Machado, Antoneta Mendes, Jessie Dias and Betty Fernandes.

Roles by Female Characters

Throughout the history of 'tiatr', female characters have performed a plethora of roles like that of a comedian, daughter, daughter-in-law. wife, mother, mother-in-law, servant, surrogate mother etc. They have acted as the long suffering mother-in-law, daughter-in-law, the wicked step-mother, the ever caring mother, the truant maidservants, an inquisitive neighbour, ungrateful daughters and so on. As a comedian they have run way with the cook, and fought over a dead cat. As wives, they have been understanding and supporting and at times conniving and unfaithful. They have played both positive and negative roles.

Female 'Tiatrists'

Today alot of girls / ladies have shed their inhibition and hesitation and ascended the Konkani stage and excelled. Some of the noteworthy female 'tiatrists' are : Janet Nunes e Almeida, Annie Quadros, Antonneta Mendes, Miss Mohana, Cecilia Machado, Ophelia D'Souza, Lorna, Sharon, Felcy, Platilda Dias, Beatrice and Rita Rose. When interviewed , many of the actors said that they had joined the Konkani stage in their early teens. It was not the monetary gains that attracted them but the love for acting and singing. Whilst some developed their own style of acting, some emulated role models. Many a time the family support and encouragement from their parents and spouses was responsible for their success. A few had their family already performing on the 'tiatr' stage and therefore did not have to struggle for a role. They confessed that in Goa there was lack of training schools for acting and that alot has to be done by the Government of Goa to protect the future of 'tiatr'.

Conclusion

After the liberation of Goa in 1961 alot of changes have taken place on the Konkani stage. 'Tiatrs' have taken up relevant political issues and have played an important role during the Opinion Poll and Konkani agitation. 'Tiatr' has also won the approval and support of the church in Goa. Acting in 'tiatr' today is a lucrative career option and the mass support has made it commercially sustainable. Tiatr shows are invariably houseful and have achieved a high degree of professionalism with elaborate sets, lighting and other technical advancement. The Goa Government must accept the 'tiatr' as a part of its cultural heritage and must have an annual budgetary provision for its promotion and development. Women on the Konkani stage have come to stay. Inspite of all odds like societal pressure, managing the home and hearth, lack of pension benefits, have excelled on stage. The tiatrist have to impress upon the Government of Goa the contribution of the Konkani tiatrs in enriching Goan Culture and the need to proudly take this unique and entertaining drama-form to all parts of globe. Only then, can we all hope for a better future for the Konkani 'tiatr' and 'tiatrists.

References :

1. Mazarello, Wilmix (2000). Hundred Years of Konkani Tiatr. Panaji : Directorate of Art and Culture, Government of Goa.

2. Navhind Times, September 12, 2005

3. www.goaworld.com

4. www.goacom.com

5. www.ixtt.com

ALTERNATE INVESTMENTS --- ART ?

Ms. Andrea Maria Menezes
BBA Department

A robust economy and the emergence of the moneyed class are boosting sales of contemporary Indian art to new highs. With the stock markets being a gamble and savings fetching low returns, those with the extra investible income are adding art to their portfolio, in order to make more profits with less risk.

Introduction :

"Do not put all your eggs into one basket" my grand mother used to say. This advice holds true even while building up your investment portfolio. "Diversification is the mantra that is touted by most investment advisors. Effective diversification shields an investor from the vagaries of any one asset class. It is said that an asset pyramid must have traditional investments such as equity and debt at its base and alternative investments closer to the apex. Basically, the higher the quantum of your investible surplus, the longer the ladder you have in order to reach the pyramid's apex.

What then are alternative investments? Any non- traditional asset class would be an alternative investment. Venture capital, hedge funds, private equity and real estate are non- traditional investments. However in today's liquidity propelled world, you often find money chasing the unlikeliest of assets. The newspapers and the television carry stories of investors investing their millions in wines, islands, antique cars etc.

Art as an investment option :

Art as an investment class has caught the fancy of investors recently. The Indian Art scene is witnessing a lot of action, with both art prices as well as the number of art auctions hitting a new high. Indian artists are enjoying the attention of global investors and art galleries are vying with each other for a slice of the pie. The hype surrounding art is tempting several traditional investors to put their money 'where the colour is'.

There have been quite a few lucky individuals who have been able to make a killing by selling the painting bought by them for multiples of the purchase price. These individuals tend to enjoy the spotlight of media attention and become instant celebrities and many 'traditional' investors decide to emulate them. How rewarding

has art been in recent times ? The answer -- 'Very'. However 'Art' may not be everyone's cup of tea.
Prospective 'Art' investors ....

...do not over invest in this asset class. Remember it is an alternative investment and hence closer to the apex of your investment pyramid.

... Art is extremely vulnerable to fluctuations in public tastes and other factors and hence are considered high-risk speculative investments.

.... should buy Art primarily because you like them and only secondarily because they may return a profit.

Art is not a liquid investment. This means the paintings cannot be resold quickly for a profit. One reason for this is the market for these items fluctuates. To earn decent profits, you may need to stay invested for a long time. However, Art enjoys an aesthetic edge over other assets, in that it can be used to furnish a home or office. On the other hand, Art can be cumbersome and costly. Often paintings are fragile, require proper environmental conditions, regular maintenance, adequate insurance and frequent appraisals.

Basic Rules :

Here are some basic rules to be followed while investing in Art:

1) Find a reputable dealer who has been in the business for some years long enough to know about the quality, market trends and pricing practices in the field in which you want to invest in

2) Obtain a written appraisal or certificate from a lending appraiser or certifier in your field attesting to the quality and authenticity of the item. This is of utmost importance to prevent your money being spent on acquiring a 'fake'.

3) Insure the item adequately. Check your homeowner policy and ensure that it includes these 'works of art'.

4) Maintain the artwork properly. Repairs should be made only by well trained experts. The value of poorly maintained artwork diminishes rapidly.

5) Put only a small percentage (10% - 15%)of your investible surplus into such investments. Exceeding this limit may subject your entire investment plan to a high level of risk.

6) Purchase top quality items. Top quality items are expensive but they tend to

appreciate even during difficult markets. Second and third rung works of art may cost less initially but may prove to be costly in the longer run.

The Indian Art Scenario:

The first professional art auction was conducted by Christies in 1987. M. F. Husain's tribute to Safdar Hashmi in 1989 was the first Indian painting to fetch a million rupees. In the 90's the works of M. F. Hussain, Raja Ravi Varma dominated the auction landscape in cities like New York and London. Since 2000, the growth of the domestic market has accelerated. Osians India's first auction house was set up in 2000, followed by Bowrings and SaffronArt (India's first online auction site)

The Indian Art market has never been in better shape. In the last three years many art works have fetched over 10 million rupees. The most prominent reason for the same are:

- **Increased purchasing power :** Yuppie Indians as well as NRI's are showing keen interest in purchasing artworks. Osians, a well known art auction house estimates that the number of NRI buyers should rise aound 16 times from the current level of 125 to 2000 by 2007. A telling indicator of the growing interest in auctions is the fact that paintings sold in Osians first auction in 2001 fetched an average price of Rs.1,35,000 while the auction held in September, 2006 fetched an average price of 66 lakhs.

- **Increasing respect for archival and documentation work :** Today investors have access to credible information in the form of high quality publications of historical and archived artworks. This has helped the pricing stability.

- **Launch of dedicated Art funds :** Edelweiss launched the first art fund known as " Yatra Fund" in September, 2005 and garnered a corpus of 10.75 crores. Osians recently launched its Art fund and garnered an impressive 102 crores. This fund aims at providing investors capital appreciation through the holding of a comprehensive, historically driven portfolio of investment and management in the Contemporary Fine Arts from the Indian sub continent. It is debatable whether the market is ready for Art funds but it is commendable that a start has been made.

At this point it would be suitable to state that there are a few factors that could apply the brake to this market's momentum. Safe keeping standards in India have a long way to go before they can be compared to the West. Insurance companies are yet to

structure products for this market. Currently art enjoys the same tax treatment as hard assets such as real estate and gold. Any adverse change may damage the market's momentum. It is also unlikely that the common investor will be able to afford to invest in reasonably good paintings in the near future. Hence it will remain a passion of the rich.

Conclusion :

In conclusion, it is quite clear that despite the road ahead being a bit foggy, there is no doubt that the foundation is slowly being laid for the next level of growth and it is quite likely that art will occupy an increasing share of a High Net Worth investor's portfolio over the coming decade or so.

References :

http://www.rediff.com/money/

http://www.thehindubusinessline.com/

http://www.osians.com/

http://news.moneycontrol.com/india/news/marketedge

THE NUMBER 'e'

Miss Ulpa U Waingankar
Department of Mathematics

'e' is non recurring, non terminating number which is complementary to logarithmic function 'ln'. It can be represented in complex coordinates frame and also in terms of polar coordinates. 'e has many astonishing properties. Also e has various applications which are quite often used and among them most pleasing one is the logarithmic spiral which remains unchanged under most of the transformation of geometry.

Introduction

e is an non-recurring, non terminating number which was known to mathematicians atleast half a century before the invention of the Calculus. The number e first appeared in connection with the formula for compound interest and it startled the mathematicians of the early 17th century to whom limit concept was not known. Also e appeared as the natural base of e Naperian logarithm leaving the origin of e shrounded in mystery. Thus we do not know who first notice the peculiar behaviour of number e. So e is like an orphan young child who laid the basis for most of todays mathematical concept.

In 17th century, an unknown mathematician or a merchant noticed a curious connection between the way money grows and the behaviour of certain mathematical expression at infinity. Suppose we invest a principal of 'P' rupees in an account that pays 'r' percent interest rate compounded annually, the balance after 't' will be

$$S = P(1+r)^t \quad \text{------------(1)}$$

If compounding is done 'n' times a year then equ. (1) changes to

$$S = P(1+\tfrac{r}{n})^{nt} \quad \text{------------(2)}$$

Consider a hypothetical case, where r=1 ie if the annual interest rate is 100 percent and if principal P = 1 and t = 1 year the equation (2) reduces to

$$S = (1+\tfrac{1}{n})^n \quad \text{------------(3)}$$

As we increase the value of 'n' the value of expression settles somewhere around

n	$\left(1+\dfrac{1}{n}\right)^n$
1	2
5	2.48832
10	2.59374
50	2.69159
100	2.70481
10,000	2.71815
100,000	2.71828
10,00,000	2.71828

It is believed that number e = 2.71828 received its first recognition in this context.

$$\text{Consider } \lim_{n \to \infty} \left(1+\frac{1}{n}\right)^n = \frac{1}{1!} + \frac{1}{2!} + \frac{1}{3!} + \cdots$$

Let the limit be denoted by 'e' then

$$e = \frac{1}{1!} + \frac{1}{2!} + \frac{1}{3!} + \cdots \qquad \text{--------(4)}$$

Euler defined it as "the number whose hyperbolic logarithm is equal to 1". The earliest appearance of e in a published work was in Euler's Mechanica, in which he laid the foundation of analytical mechanics

Thm : e is irrational number
Proof:
We will try to prove this by the contradiction method. Let if poosible e be rational.
Then e = p/q; p,q,∈,z and q ≠ 0.
We know that, 2<e<3
therefore e cannot be an integer , therefore q ≥ 2
Now from (4)

$$e = \frac{1}{1!} + \frac{1}{2!} + \cdots + \frac{1}{n!} + \cdots \qquad \text{----(5)}$$

Now q! = 1.2 ....q --------(6)

Multiplying both the sides of (5) by (6), we get

$$e.q! = (\frac{1}{1!} + \frac{1}{2!} + \cdots\cdots) (1.2.3\cdots\cdots q) \qquad \text{----(7)}$$

The L.H.S. of (7) gives

$$e.q! = (\frac{P}{q}) q! = P.1.2.3\cdots\cdots(q-1) \qquad \text{----(8)}$$

and R.H.S. of (7) gives

$$[q! + q! + 3.4\cdots\cdots + 4.5\cdots\cdots q + \cdots + (q-1)q + q + 1] + \frac{1}{q+1} + \frac{1}{(q+1)(q+2)} + \cdots\cdots \qquad \text{----(9)}$$

Equation (9) is a product of integers hence it is an integer. Now the term
$[q! + q! + 3.4\cdots\cdots + 4.5\cdots\cdots q + \cdots + (q-1)q + q + 1]$ of equation

(9) is an integer but

$$\frac{1}{q+1} + \frac{1}{(q+1)(q+2)} + \cdots\cdots \leq \frac{1}{3} + \frac{1}{3.4} + \cdots\cdots < \frac{1}{3} + \frac{1}{3^2} + \frac{1}{3^3} + \cdots\cdots < \frac{1}{3}[1 + \frac{1}{3} + \frac{1}{3^2} + \cdots\cdots]$$

Now $1 + \frac{1}{3} + \frac{1}{3^2} + \cdots\cdots$ is an infinite geometric series with common ratio $\frac{1}{3} < 1$
and its sum is

$$\frac{1}{1 - 1/3} = \frac{3}{2}$$

Hence, $\frac{1}{q+1} + \frac{1}{(q+1)(q+2)} + \cdots\cdots < \frac{1}{3} \cdot \frac{3}{2} = \frac{1}{2}$

Thus,
we see that equation (8) is an integer but (9) is not, as $1/2 \notin Z$

This is a Contradiction. Hence our assumption that e is rational was wrong.
Hence 'e' is an "Irrational number".

Some properties of e

1) It is the only function that equals its own derivative.
We prove this using 1st principle
Let $f(x) = e^x$

To prove that : $\dfrac{d}{dx} f(x) = f'(x) = e^x$

Now $f'(x) = \lim\limits_{h \to 0} \dfrac{f(x+h) - f(x)}{h} = \lim\limits_{h \to 0} \dfrac{e^{x+h} - e^x}{h}$

$$= e^x \lim\limits_{h \to 0} \dfrac{e^h - 1}{h}$$

$$= e^x \cdot 1 \quad \left(\because \lim\limits_{h \to 0} \dfrac{e^h - 1}{h} = 1 \right)$$

$$= e^x$$

2) Graph of the function $y = e^x$ and $y = \ln^x$. Show that they are mirror images of each other
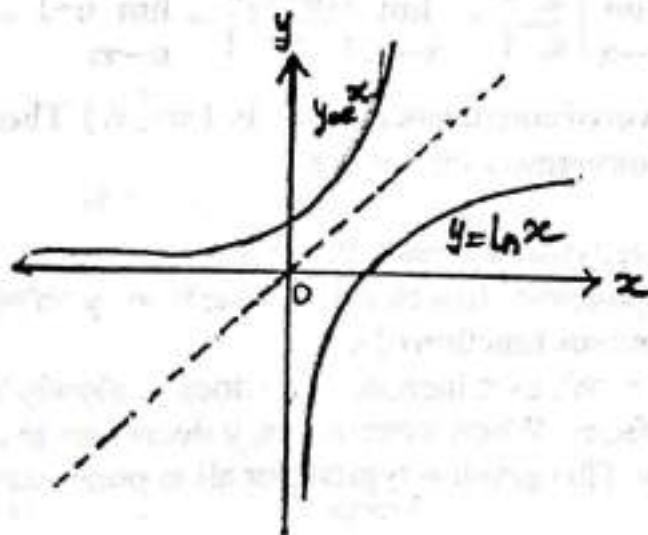
Fig 1 $y = e^x$ & $y = \ln^x$ are Mirror images of each other

3) Exponential function $y=e^x$ continuos every where

Let $f(x)=e^x$

Let c be any real number
therefore $f(c)=e^c$

Also $\lim\limits_{x\to c} f(x) = \lim\limits_{x\to c} e^x = e^c$

Thus $\lim\limits_{x\to c} f(x) = f(c)$.

But c is any arbitrary real number.
Hence the exponential function $y=e^x$ is continuous everywhere

4) The function $f(x)=e^x$ Converges everywhere.

Now $e^x = \sum\limits_{n=1}^{\infty} \dfrac{x^n}{n!} = 1 + \dfrac{x}{1!} + \dfrac{x^2}{2!} + \cdots\cdots$

Now the nth term of the above series is given by $a_n = \dfrac{1}{n!}$ and

therefore $a_{n+1} = \dfrac{1}{(n+1)!}$

Therefore DeAlembert's formula for radius of convergences we get,

$$R = \lim\limits_{x\to\infty} \left| \dfrac{a_n}{a_{n+1}} \right| = \lim\limits_{x\to\infty} \left| \dfrac{(n+1)!}{n!} \right| = \lim\limits_{n\to\infty} n+1 = \infty$$

Hence the interval of conveyance for e^x is $(-\infty, \infty)$. Therefore, the exponential function $y=e^x$ Converges everywhere.

5) Also e^x is never zero for any real number x.
Consider the exponential function with base b, ie $y=b^x=f(x)$
Now f is a continuous function of x.
We see that for $y=b^x$, as x increases, so does y, slowly at first, then at an ever faster rate to infinity. When x decreases, y decreases at an ever slower rate and tends to infinity. This graph is typical for all exponential function regardless of their base.

82
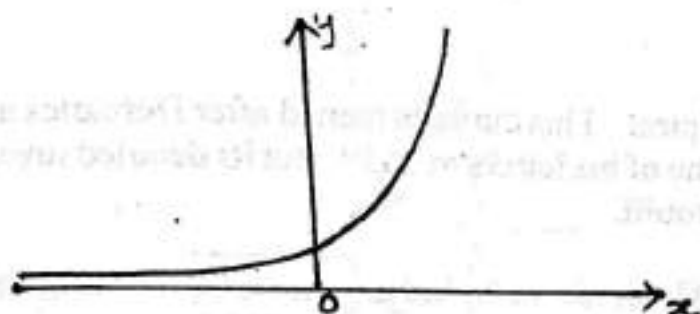
Fig 2 *The exponential function y= bˣ for b>0*

It lacks most of the common features of graph of algebraic function such as x-intercept (where the graph intersect with x-axis), point of minimum (point at which function takes minimum value in the given interval) points of maxima (point at which the function takes maximum value in the given interval) and inflection point (point at which the function neither takes maximum nor minimum value). Further the graph has no vertical asymptotes (value of x near which function increases or decreases without bounds.

Polar Representation

Consider the case of exponential function when the exponent is an complex no.

ie $y=e^z$ where $z=x+iy$; $x,y \leftarrow R$

Then e^z satisfies the addition theorem,

(ie $e^{a+b} = e^a . e^b$; $a,b \in \mathbb{C}$)

By Euler's formula,

$e^{ix} = Cosx + iSinx$

therefore $e^z = e^x (Cosy + iSiny)$; $z=x+iy$

This preserves all the formula properties of the real values functions e^x.

Thus e^z equal its own derivation and is never zero just as e^x

As e^x, we define e^z as

$$e^z = 1 + \frac{z}{1!} + \frac{z^2}{2!} + \text{........}$$

In polar coordinate, $x=rcos\theta$ & $y=esin\theta$

Therefore $z=x+iy = r(Cos\theta + iSin\theta)$

$= r \, e^{i\theta}$ ---- exponential representation of complex no.

Applications

1. **Logarithmic Spiral** : This curve is named after Descartes as he was the first to mention it in one of his letters in 1639. But its detailed investigation was made by Jakob Bernroulli.

The equation of logarithmic Spiral is $\boxed{\ln r = a\theta}$ where a is a constant. Today we write equation as

$$\boxed{r = e^{a\theta}}$$

The logarithmic Spiral is the only type of spiral that does not alter as it grows and every straight line through the pole intersect the spiral at same angle. Therefore it is called <u>equiangular spiral.</u> Circle is a special case of logarithmic spiral with rate if growth <u>zero.</u>

It remains unchanged under the most of transformation of geometry and hence it is dubbed as <u>Spira Mira bilis</u>

Left handed spiral →   ←— Right handed spiral
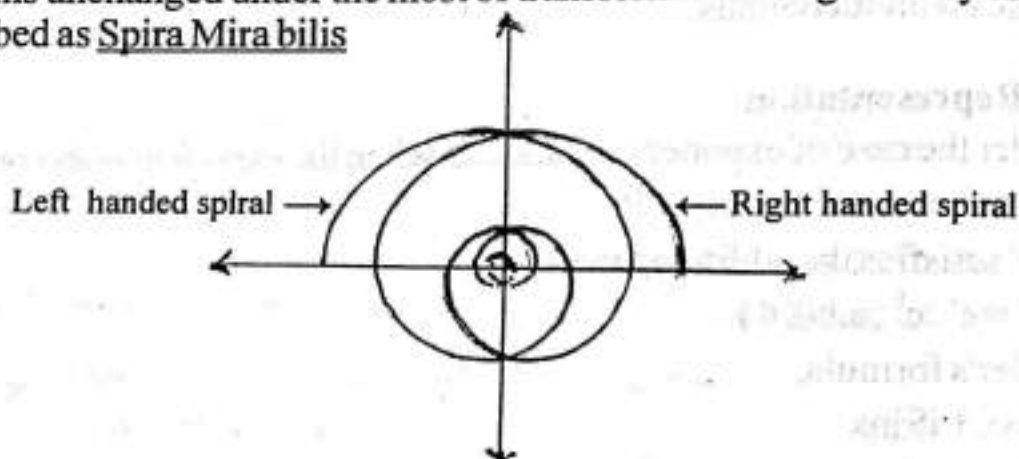
Fig. 3 : *Left and Right handed spirals*

-- Right handed logarithmic Spiral & its equation is given by
$r = e^{a\theta}$, a>o

-- Left handed logarithmic Spiral & its equation is given by
$r = e^{-a\theta}$, a>o

Both are plotted is spiral coordinates
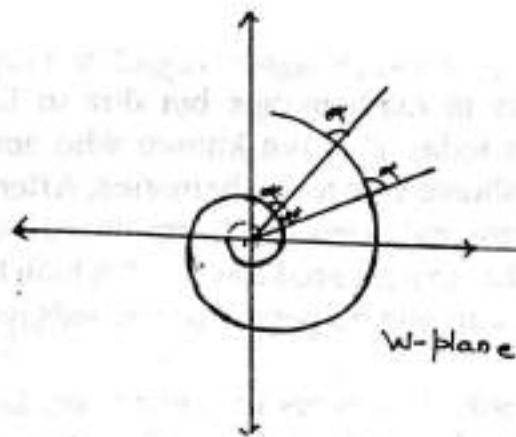
Fig. 4 :*Equiangular property of logarithmic spiral*

Equiangular property of logarithmic spiral

it occurs in nature more often than any other curves. Sometimes with stunning accuracy as in nautilus shell. the English naturalist D'Arcy W. Thompson discussed in details the role of logarithmic spiral as the preferred growth pattern of numerous natural forms, among them are shell, horns, tusks and sunflower, including spiral galaxies.

The Dutch artist Maurits C-esher used the spiral in same of his creative works including the book named "Path of Life" depicting the eternal cycle of life and death.

2) **The Hanging Chain**
One of the outstanding problem followed by the invention of Calculus is the problem of the Catenary - The hanging chain. The curve in which a chain hangs when suspended from two hooks was called Catenary by Christian Huygen. To eye the hanging chain may look like a parabola but it is a curve whoes equation in modern notation is

$$y = \frac{e^{ax} + e^{-ax}}{2}.$$

where a is the constant, depending of physical parameters of the Chain - its linear density and tension at which it is held.

Conclusion:

'e' appears in many topics in mathematics but due to limitation only few are discussed over here. Even today it is not known who actually discovered e. But whoever he is, he has contributed a lot to mathematics. After e was discovered we got solutions to various problems and many new formulas. e has also given rise to every important function called the "exponential function" which has a wide applications in analysis. This function has a unique property that it equals its own derivative.

e is also used in Hadamards Theorems on entire function, Jensen's formula on analytic function and Poisson Integral of piecewise continuous function.

e has many amazing facts associated with it, but the one which is really pleasing is the logarithmic spiral. It has very interesting properties. Many Phenomena is nature follows a logarithmic spiral. eg. nautilus Shell, sunflower etc.

References

1) A.I - Markushrich - Remarkable Curves, Mir publishers, Mosco (1980)
2) Alfred Hoper - Maker of Mathematics, Faber & Faber Limited, London.
3) Eli Maor - e- The Story of an number, University Press India Limited (1998)
4) S. Barne, J. M. Child - Higher Algebra (1936)
5) H. M. Chundy A.P. Rollers - Mathematocal Model (1961)

Examples of Logarithmic Spira seen in nature

SUNFLOWER
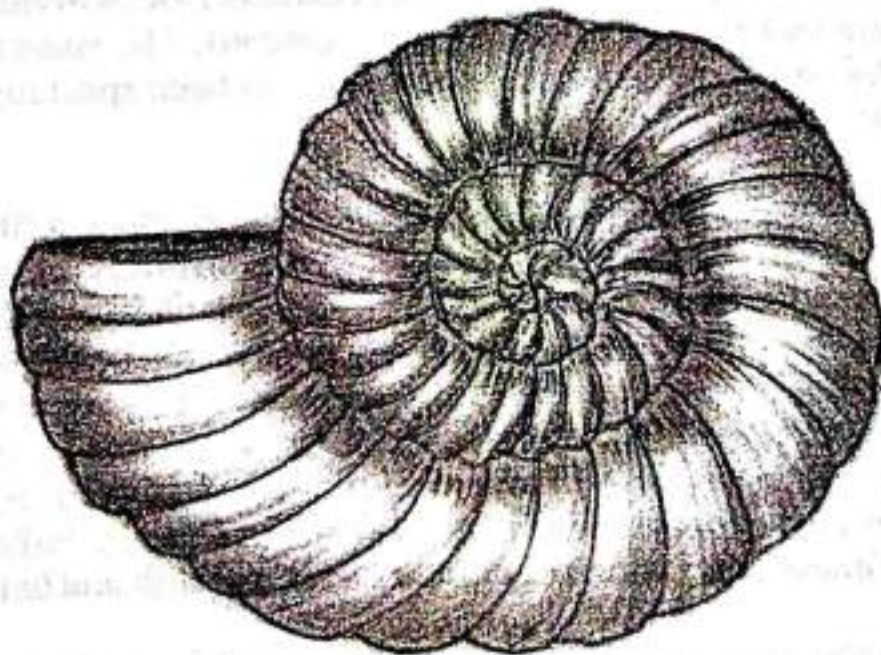
NAUTILUS SHELL

GOA MARRIOTT RESORT

In the hotel industry, each department is involved in providing services to the customer. So, each department has to co-ordinate with each other effectively to provide the required service on time. The project highlights if the hotel staff are trained to serve the various functions for which they are employed. The training needs have been classified according to the importance and urgency of their implementation. They are interpreted as Vital, Essential and Desirable.

Introduction

The Goa Marriott Resort is owned by Salgaocar Group of Companies as a fully owned subsidiary of Palm Hotels India Private Limited. PHIL has signed a 25 year contract with Marriott International for the ownership rights of the Goa Marriott Resort. Thus, the Goa Marriott Resort heralded the debut of this huge U.S. based hotels chain in India as the Resort is entirely managed by the Marriott International Group. The Resort cost approximately Rs. 150 crores to build and was inaugurated on 15th December 1999.

The Resort is designed to meet the needs of both the business and leisure traveler. The Resort is elegantly designed with elements of Goa and a touch of Mediterranean. It is surrounded by a vast expense of forest green gardens. The sunset peach coloured hotel building, is topped by brick red roof tiles, has been specially designed as an environment friendly resort.

Located on Miramar Beach facing the Arabian Sea and close to the capital city of Panaji, business and industrial belt and Old Goa with its history and cultural heritage. Designed to meet the demands of both the business and leisure traveller the Resort boasts 160 superior rooms and 10 suites, a variety of dining options from its Multi-cuisine restaurant to its specialty Chinese restaurant and its renowned Seafood restaurant. A cigar and coffee bar, casino and entertainment venue "Blu." Spa and Fitness Centre offering Ayurvedic treatments, traditional massages, flower therapy, yoga and other holistic treatments in its Alternative Therapy Suite. There is a full range of "life fitness" equipment, sauna and Jacuzzi, squash and tennis courts and at

the waters edge a freeform 50 meter swimming pool with swim up bar. On the adjacent Miramar beach, diving activities, day cruises and water sports can be arranged, or just lie on the beach enjoy the sun and sip on a cocktail from the waterfront bar.

PURPOSE OF THE PROJECT

The purpose of the project was
1. To identify training needs of all positions {excepting Managerial positions} in all departments of the Goa Marriott Resort.

2. To find out whether the 15-min training program was being conducted in all departments and whether the program:
   - Was structured
   - Had a monthly plan
   - Was taken seriously

METHODOLOGY
To achieve our fore mentioned purpose of the project, I followed the method of interviewing. The interview was on the lines of a prepared questionnaire. A sample of two persons for every position from each department was taken.

CLASSIFICATION OF TRAINING NEEDS
Training needs have been classified according to the importance and urgency of their implementation. The codes are given at the end of each need and can be interpreted as follows:

- (V)- Vital. These training needs should be implemented as soon as possible; preferably within the next 2 months.

- (E)-Essential. These training needs are of importance but this implementation is not considered to be very urgent. They can be implemented within the next 6 months.

- (D)- Desirable. These training needs can be addressed within the span of the following 1-year.

Following are the findings with its analysis gathered from each of the Departments at the Goa Marriott Resort, namely: Housekeeping, Kitchen, F & B, Engineering, Loss Prevention, HR, S & M, etc

HOUSE KEEPING

In the housekeeping department, every shift starts with a 45- minute briefing, which consists of what work is to be covered on that particular day. A review of work done the previous day and any special work to be done are also touched on. The 15-min. training is mixed with the elaboration of the 20 Basic Points.

Needs:

1. The Associates at the lower levels expressed their need for training in specific areas of work such as carpet cleaning and floor polishing.(E)

2. Lead Associates showed a desire to learn how to operate the Fidelio computer software system, in preparation for higher positions. (D)

3. Associates working in the Uniform Room require being trained in stitching and darning, tasks that are part of their job description. At present the department has only one associate skilled in these tasks. He is not only responsible for the staff uniforms but also guest's clothing. In case of his absence this work is totally stalled.(V)

4. Associates working in the Laundry Room need training in the procedures of spot Cleaning and Dry Cleaning. They require being more familiar with the machines used for this purpose.(V)

5. Supervisors who have recently joined this department need training regarding the various aspects of housekeeping so as to function better in their jobs. For Fidelio, the new recruits should be given a list of commands for the system, so that time is not wasted in trial and error.(E)

6. MIT's in this department would appreciate having a look at the Marriott videos and possibly a visit to other properties.(D)

Implementation:

1. Duration of training can be limited to one session in cases of:
   a. Carpet cleaning and floor polishing
   b. Dry cleaning and spot cleaning. For the other needs, the training can be imparted over a period of time.

2. Training should be very practical in nature i.e. at the work place using the same machines and the same chemicals, leaving them in no doubt as to how to operate the machines. If the demonstration is given on a different machine the associates are unable to relate it to their work place.

3. For most of the needs other Marriott associates can handle the training (such as Fidelio and Marriott videos and other aspects of housekeeping). For other needs (as carpet cleaning and dry cleaning) the supplier of machines can impart the training.

KITCHEN

In the kitchen the 15-min. training is done about 10 times a month (2 to 3 times a week) and is taken by the Executive Chef or the Sous Chef. The training mainly covers theoretical aspects of cooking and refreshers in kitchen practices.

Needs:

1. Associates in the kitchen need to be aware about the basics in the kitchen and what are the Marriott policies (Great Food-Safe Food, Hygiene) and procedures (Food Borne Illness Notification Procedure etc.) regarding kitchen work. Simpler terms as "Coming Around" and" Behind You" can make work much simpler and easier.(E)

2. Kitchen Assistants feel that job rotation in other departments of the kitchen would help break monotony of the job as well as help in opening up new areas of learning.(D)

3. The bi-weekly training program carried out by the kitchen department should also consider people who had an off that day or who are working in shift when the program is on.(V)

4. New associates in the pastry department require to be trained in the basics of pastry making. The training imparted should be more practical in nature.(D)

5. There is a need for constant updating of recipes especially in areas like the pastry and cold kitchen where novelty in recipes and presentation of food is important.(E)

6. There is a need for a change in attitude amongst kitchen staff. They must understand that training imparted to them is to make them more efficient for the hotel. The need to learn enough to join a ship is not a reasonable training need to be fulfilled by the hotel.(V)

Implementation:

1. An associate aware of Marriott policies and procedures regarding kitchen work should take up this training.

2. For Job Rotation in the kitchen a schedule should be made so as to decide on which associate goes to which department and for how long. This would have to be done very meticulously so that the normal functioning of the kitchen is not disrupted.

3. A schedule of associates attending the program needs to be drawn, segregating the ones who can attend and the ones who cannot Then the training program should be repeated at a time when most of the other associates are able to join in. To avoid monotony for the trainer (because of repetition) the sous chef or the kitchen executive may take the future.

4. Training in the pastry department of the kitchen can be taken up either by senior chefs or chefs may be invited specifically for the purpose.

5. Updating of recipes and presentation of food can be handled by senior Associates in the kitchen itself.

FOOD & BEVERAGE

All departments under F&B chalk out their monthly schedules for the I5-min training program. Because WFT is open for 24-hours it is an effort for the Executive to make time for training. Even after the time constraint the WFT Executive is doing a very good job and most of the associates under him are well groomed in their position. Whenever he does a new task, he makes an effort to train them in it.

Needs:

1. Practical training is necessary for the entire staff through demonstration and case studies on areas such as serving etc.(V)

2. Associates who are bar tenders or are serving drinks need training in

theoretical areas as the origin of drink (e.g. Bloody Mary) or how are some of the ingredients of a drink made (e.g. tonic). Practical training in tossing wine bottles and other intricate details of being a barman is necessary.(E)

3. Experienced associates can judge a lot about a customer from the time he walks into the restaurant. For example, by judging the customer's spending capacity, the associate can recommend relevant items from the menu.(D)

4. Associates need training in dealing, approaching and encouragement to meet guests, to make them feel comfortable with the guests. Only when they are comfortable. (V)

5. A lot of associates in F&B desire cross training, so as to learn from other restaurants to catch up on areas that they may not be aware of or have not touched upon .(D)

6. It is important for all associates to be trained in handling irate customers.(E)

7. The Associates employed in the specialty restaurant Wan Hao need to be better informed about the Chinese culture and tradition.(E)

8. Recipes and ingredients used should be made known to Associates, especially if they are unique to Chinese cooking .(E)

9. With respect to WFT, Knowledge of the menu is of great importance due to the frequent food festivals.(V)

Implementation:

1. MIT's / Executives of the respective departments are capable enough of handling demonstrations, case studies etc.

2. Experts on wines and drinks can handle training in that area. If Goa Marriott, does not have such associates then experts from Marriott International should take it up.

3. Experienced associates and Executives should take training classes for new associates in how to judge customer preferences and approach them,

handle irate customers and how to read body language, gestures, expressions etc

4. Cross training would require the department heads chalking out a plan (schedule, needs and topics to be covered) so the associates of the two department can come together and share their knowledge.

5. Associates in Marriott's or from Marriott International should train Wan Hao Associates in details in Chinese cuisine, mentioning clearly the recipes, ingredients and spices.

ROOM SERVICE

In this department the 15-minute training is carried out in the department at the beginning of every shift or when workload is heavy at 3 :00 p.m. when both shifts meet. The shift Leader or the Lead Associate on- duty handles it. The training is taken seriously and is structured i.e. a training calendar is prepared the whole month.

Needs:

1. Associates require upgrading with respect to their communication skill, especially telephone communication. Voice clarity and understanding of foreign accents are some of the areas in which need for training was felt.(D)

2. Associates also felt the need to brush up their skill on up selling.(D)

Implementation:

1. Duration of training should be in the form of small doses over a period of time, as the skills to be inculcated cannot be mastered in one shot.

2. Both the training needs can be handled efficiently by other Associates of Marriott.

3. The training can be imparted with the use of simulation and role-play techniques.

ENGINEERING

For this department too, the I5-min training is mixed with the briefing session. The briefing session covers the work that is to be done that day and that was left undone the day before. Because of the time constraint it is difficult to conduct it daily.

Needs:

1. The Associates want more of practical training of the work they do (repairs etc.). This is especially important for new recruits joining this department. (V)

2. Training is also required in handling Guest Complaints, Complaints regarding malfunctions of appliances in their room are notified by a direct call to the engineering department or are sent through the Front Office. The associates are at times unable to understand the nature of the problem, may be because of differences in accents. They should also be trained in the Marriott's practices of Telephone Etiquette and Guest Courtesy. All this requires a lot of practical training for the associates. (E)

3. There is also a need for training on the Local Zone Panels as the associates complain that they have no idea about what is inside it. (E)

4. As the Engineering department is contacted whenever an equipment (dish washer or grinder) malfunctions in the kitchen or housekeeping, the associates want that whenever a new equipment is bought they should be present to see the demonstration given or at least see it in working condition.(E)

5. There is only one associate in the department who can handle complex problems regarding telephones. Though most of others can handle general faults but complaints of special nature can be dealt with one person only. Training others would not only reduce dependence on one person but also reduce his workload. (V)

6. The associates in the BMS room want computer training, as they presently are able to understand only the operations part of it. Further training will help them work better. (D)

7. They can also be sent to supplier companies (companies that supply equipment as generators, chillers etc.) for training. Companies in areas as Goa and Pune run such programs for a maximum period of 5 days. The key is to schedule the training for all associates. (E)

8. The Admin Assistant would benefit from training in secretarial duties and in other areas as organizing, follow ups and general administration. (D)

Implementation

1. Training regarding electronic or telephone repairs, can be handled by associates in Marriott who are specialized in this area. Otherwise, suppliers could impart necessary training regarding repairs and maintenance of equipment supplied.

2. Training on telephone etiquette can be done according to Marriott practices and computer training can be given according to the kind of software used.

3. Marriott videos and other documentation available within hotel on administration and organizing would be of help to the Admin Assistant otherwise, other associates may share their styles and ways of working.

Suggestions

1. A third party should review the training needs in Marriott periodically. Such a review becomes necessary keeping in mind the number of associates in the hotel and the associate turnover it witnesses. Being a service industry lack of training would easily show in the work.

2. The HR should play an active role in training from more than being a facilitator. Owing to the pace of work it is not possible for most of the department heads to look into training needs of their departments and cater to individual needs. Marriott policies and procedures have evolved out of years of experience in the hotel industry and if they are not made use of, it is a big loss for Goa Marriott.

3. Again because of lack of time it is impossible to follow the 15-min training concept daily. Most associates agree that the exercise is beneficial to them but is difficult to practice daily. Thus, all departments should be asked to follow it compulsorily and an "or else..." stand should be taken. Penalties should be decided and made known to others if the exercise is not done. For e.g. A when a department is not following it, then a complaint should be sent to the department with a Cc to the General Manager.

4. For review of the 15-min training in all departments, associates in the lowest position should also be asked, and not just the head of the department. Most departments have separate the 5-min training from the

briefing session, and so that is what is mentioned in the review.

5. Training is mainly necessary for individuals who lack initiative to learn. The major thrust of the training programs should be on such individuals, so that they learn from the whole exercise and are able to contribute to their job effectively.

6. When an associate is promoted his job Description changes but he is not given any specialized training and is expected to learn on-the-job. It may take a lot of time for an associate to learn, and prior training would do a lot of benefit.

7. WFT is a restaurant that is open for 24 hours. When even one customer is seated in the restaurant it becomes impossible for the Executive to take training there. For such cases, Wan Haw should be made available to the associates at WFT, so that they can have the training session there in their lean period and can be easily called over in case of need.

8. There has been feedback given by trainers earlier with regard to certain Associates, but it seems like no action has been taken.

9. Cross Training becomes very significant from two aspects.

   i) All departments in Marriott are closely linked and have to work in sync to give the guests the best of service. Thus to work effectively it becomes necessary for one department to know how the other department functions. This may also lead to one department catering their output so as to suit the other department's need. *For e.g.* It is important for the F & B to know the recipes of the food as many times have queries about it. Thus, the kitchen department in cross training could take it up.

   ii) Cross training also becomes necessary when an associate is planning a switch &om one department to another. It would allow him to understand the working of another department and then plan a switch.

10. Some associates complained that the seniors should practice what they preach in daily work. For e.g. a Marriott states that" Keep Your associates Happy" but most associated in the F &B department state that they are so

hard pressed for time that it is not possible to enjoy the work.

11. In many cases the person doing the job daily, knows how best to do the job than the person supervising. Also at times the supervisor maybe totally unaware of how a job is to be performed.

12. For Fidelio, the new recruits should be given a list of commands (hard copy) for the system, so that time is not wasted in trial and error, and they can be pinned on a board for easy reference.

23rd June, 2006

Dear Fr. Walter,

I have before me, your kind letter of 29th March, 2006 with which you sent to me a copy of the first volume of GYANA. An Interdisciplinary Research Journal, brought out by our Rosary College of Commerce and Arts.

I wish to express my deep appreciation for this initiative of research, which is taken by the college under your dynamic guidance. I am sure that this journal will offer a suitable platform for the Staff and the Students to engage themselve in research activities.

With my renewed thanks and prayerful wishes.

Yours sincerely in Jesus

Sd/- Filipe Neri Ferrao
Archbishop of Goa and Daman

Rev. Fr Walter de Sa
Principal
Rosary College of Commerce & Arts
NAVELIM, Salcete
Goa. 403 707

ARQUIDIOCESE PRIMACIAL
DE
GOA E DAMAO
PATRIARCAL
DAS
INDIAS ORIENTAIS

"PACO PATRIARCAL"
P. O. BOX NO 216
Panjim 403 001
GOA - INDIA

Tel.: (0832) 2223353 & 2224139
Fax : 91 0832 2224139
E-mail : archbpgoa@gmail.com

April 28th , 2006

Dear Fr. Walter,

I am pleased to gratefully acknowledge receipt of a copy of an Interdisciplinary Research Journal - under the title of GYANA - of Rosary College of Commerce and Arts, Navelim, which you have kindly made available to me.

While appreciating your thoughtful gesture, I take this occasion to convey my sincere congratulations and best wishes to you and those concerned in the College with the launching and publishing this Research Journal. I am indeed glad to see the variety of the contributions made to the first issue of GYANA particularly by the members of the Staff of the College, which certainly promises well for the future of the journal. May God bless abundantly all responsible and involved in the Journal GYANA

Yours sincerely in Christ

Sd/- + Raul Nicolau Gonsalves
Archbishop Emeritus

Rev. Fr Walter de Sa
Principal
Rosary College of Commerce & Arts
NAVELIM, Salcete
Goa. 403 707

CONTENTS

ROSARY

MULTIDISCIPLINARY RESEARCH

JOURNAL

Rosary
Multidisciplinary Research
Journal

Vol. I No.1 July 2002

Rosary College

Navelim, Salcete
Goa – 403707
www.rosarycollege.com

ROSARY MULTIDISCIPLINARY RESEARCH JOURNAL

Note: Views expressed by authors are their own and do not necessarily reflect those of the Rosary College.

CONTENTS

EDITORIAL

Rosary College is launching the first issue of the Rosary Multidisciplinary Research Journal. This is an initiative that deserves encouragement from all the quarters.

Teaching-Learning and Research are two important areas that must be promoted in an institution of higher education. The focus in the colleges has been on Teaching –Learning. Research has taken a backseat specially because the Faculty has to deal with a large number of students and most of their time is spent in the classroom.

However, where there is a will there is a way. It is expected that this journal will motivate our faculty and students as well as others to look at research as one of the important avenues to be explored.

This issue is multidisciplinary but in the course of time it is expected that it will also be interdisplinary. This issue carries papers on tourism, internet community, konkani proverbs, mining pollution, etc.

The pages of this journal will also be made available, in the course of time to others who would like to submit papers for publication.

– Newman Fernandes

AN ECONOMIC BALANCE SHEET OF TOURISM IN GOA : A BROAD, THEORETICAL OVERVIEW

SAVIO FALLEIRO

The main objective of this presentation is to outline and highlight some of the various positive and negative economic implications of tourism - the knowledge of which would give possible insight and 'room for thought' towards attaining in a planned systematic and scientific way a more purposive and balanced growth of tourism in Goa. To get the very best out of tourism, we in Goa have to work in a systematic, planned & co-ordinated way - without any selfish, short term motives. Experiences of places elsewhere have revealed the vicissitudes of the tourism industry and the state of trepidation it has put people into. We in Goa therefore have to learn from the experiences of others - we cannot be heterodox nor can we afford to have a 'tunnel vision'. If we do not take proper care of tourism, a fortiori, instead of being a big boon, it will end up as a curse - or a 'pyrrhic victory' of sorts.

INTRODUCTION

Tourism, claimed to be the fastest growing industry of the world today, along with oil and info-tech, was aptly defined by P. J. Abbey and D. L. Sapienza in *The Art and Science of Managing Hotels/ Restaurants/ Institutions* as an industry concerned with attracting people to a destination, transporting them there, housing, feeding and entertaining them upon arrival and returning them to their homes. True, with all its diverse activities/areas, it is an industry of industries - and that too a smokeless one.

Tourism is growing in India. Way back in November '98, Government of India (GOI) set up the Tourism Export Promotion Council and in December '98 the GOI accorded to tourism the 'export house' status in a bid to boost foreign exchange earnings, employment and income generation. Factors like improved transport, higher incomes, more leisure time, easy availability of funds/ loans for travelling through attractive bank schemes, improved marketing/ promotion/ publicity, large number of travel agencies, growing urbanization etc. are responsible for the growth of tourism. However, tourism in India is growing very slowly. A miniscule figure of 0.4%, of the total tourists travelling worldwide (over 570 million travel worldwide), visit India.

Mr. Savio Falleiro is the Head of Department of Economics, Rosary College, Navelim, Salcete, Goa.

Even among Asian countries India ranks far behind. A recent report showed that China receives around 53 million tourists a year. This is in stark contrast to India which received about 2.42 million tourists in 1998-99 [Hindu, 20/02/00]. Even Indonesia and Malaysia get about 20 million foreign tourists a year. Unfavourable geographical location of India vis-a-vis the major tourist generating countries of the world, poor and/or insufficient facilities/ modern comforts and wrong image of India abroad on account of improper marketing/ promotion, are the important reasons for India's poor performance on the tourism front.

Growth of tourism is witnessed in Goa too. It contributes a substantial amount to the Gross Domestic Product of Goa; different sources give different figures for this, ranging form 25% to 55%. Goa, popularly called as the Rome of the East, was rated amongst the top five tourist destination countries of the world for the so called millennium celebrations. From about 2 lakhs tourist in 1975, the number has gone up to about 8.34 lakhs in 1986 and 12.44 lakhs in 1999 (of this figure, 9,60,114 were domestic tourists and 2,84,298 were foreign tourists). The annual growth rate of tourists arrivals in Goa has been positive especially since the mid-eighties, except for two years viz. 1988 and 1991 when there was a negative growth. The annual growth between 1998 and 1999 was 7.7%. The ratio of domestic to foreign tourists visiting Goa is around 75:25. The total number of tourists visiting Goa every year is more than Goa's actual population. The present accommodation available to tourists is about14982 rooms, of which 3489 are in the starred category, 2566 are in the paying guest room category and the remaining 8927 rooms in the unclassified category [Tourism Statistics, Department of Tourism, Government of Goa, 2000].

One fact responsible for Goa's popularity among tourists is the combination of festivals/ feasts, churches/ temples, customs/ traditions, about 109 kms of littoral stretch and easy accessibility by air, road, rail (and even sea). A rise in the operations of direct charters to Goa especially from countries like the U.K., Germany and the Scandinavian countries, is an important cause for the growth of foreign tourist arrivals in Goa. Except for the year 1996-97, when the number of charter flights/ passengers declined, there has been a regular increase in charter flights/ passengers right from 1990-91 onwards (prior to this year there were regular fluctuations), from 121 flights in 1991-92 carrying a little over 17,000 passengers, the figure has gone up to 356 flights and about 90,635 passengers in 1998-99 [Tourist Statistics, Dept. of Tourism, Govt. of Goa,2000].

Growth of tourism in Goa may also be on account of participation in various world fairs like International Tourism Borse (FTB) at Berlin, Germany and Feira International de Tourism (FTTU) at Madrid, Spain and in various travel and trade fairs in different parts of the country.

This presentation is an attempt to provide *a broad theoretical overview of the economic impact of tourism on Goa*, at present. This has been done since tourism has become an indispensable part of the Goan economy. The objective here is to *outline and highlight some of the various positive and negative economic implications of tourism* – the knowledge of which would give possible insight and 'room for thought' towards attaining in a planned systematic and scientific way a more purposive and balanced growth of tourism in Goa.

- *This presentation concentrates only on tourists visiting Goa. It has not dealt with any impact on Goa on account of Goan people going as tourists elsewhere.*

- *The economic implications mentioned below are based on, mainly, information /data obtained from secondary sources. Material obtained from the Department of Tourism (Government of Goa), GTDC, newspaper reports / articles, press statements, and by cross-questioning local people (especially from the coastal areas) and 'Informed' people have been of immense help for this presentation.*

THE POSITIVE ECONOMIC IMPLICATIONS OF TOURISM ON GOA

EMPLOYMENT

Tourism which is even at present a labour intensive industry has provided a lot of employment opportunities. It is said to be the 'maximum employer' for every rupee invested. Proper planning of the tourism sector can provide even more solace to the unemployed class.

Tourism provides both, direct as well as indirect jobs/ job opportunities – to the skilled as well as unskilled labour force. In Goa, tourism has offered a wide variety of jobs ranging right from receptionists, cooks, room-boys, secretaries and accountants to hair-dressers, laundry men, waiters, guides, tour-operators and taxi-drivers. Construction activity on account of tourism has also increased employment. Self-employment has also gone up. Tourism is also an 'industry' which provides a lot of jobs to trained females - and this has been beneficial for a state like Goa having a large number of educated girls. Almost 20% (i.e. roughly about 2 lakhs) of Goa's population earn their livelihood from tourism — either directly or indirectly.

That tourism per se has provided a lot of job opportunities is a fact. However, it may be pertinent here to mention two points with respect to tourism and employment, namely:

i) *A large number of people dependent on tourism in Goa have seasonal employment only (in July '99 - off season time, there were only 3315 foreign tourists and 57,138 domestic tourist arrivals in Goa as compared to 41476 foreign tourist and 1,07,837 domestic tourist arrivals in Dec '99 -peak season time. There are no charter flights too in the off-season) [Tourist Statistics, Dept. of Tourism, Govt. of Goa, 2000]. It is however argued that the seasonal nature of tourism related jobs is not an important aspect because, firstly it is said that in the*

3

peak season the average earnings are such that they will compensate for low or no earnings in the lean / off season, and secondly it is argued that tourism at least gives jobs in the peak season; otherwise people would have been unemployed throughout the year.

ii) A large number of tourism related jobs of all categories, skilled and unskilled, are taken up by the 'non-locals'. It is claimed by some that 'outsiders' get the 'good lucrative' jobs because trained / qualified Goans are not available and the low and unskilled jobs, because Goans shy away from such jobs. True or not - the debate goes on with arguments and counter-arguments.

FOREIGN EXCHANGE EARNINGS

Goa earns a substantial amount of foreign exchange on account of tourism. (This is bound to be so, since about 12% of the total international arrivals in India and around 70% to 75% of the total direct charter flights come to Goa). This foreign exchange is earned (unlike other industries) without having to resort to 'exports'. Tourism today is claimed to be the largest net retainer of foreign exchange earnings. In 1994-95, Goa earned about Rs.194.60 crores worth of foreign exchange on account of tourism (it was about Rs. 32.64 crores in 1986-87). Reports claim that there is an average rise of about 25% in foreign exchange earnings every year.

INCOME

Tourism has helped, at least some, to earn 'better' incomes. Besides a number of people earning their incomes directly through tourism related jobs, others are supplementing their regular, non-tourism income (through tourism) - by providing bikes / rooms on hire / rent and by opening small shops (even in their own houses). Even the handicapped, the aged and not to forget, the 'busy housewife' - all earn on account of tourism. Higher incomes have led to better spending capacity and hence improved standard of living and prosperity – at least for some of the local people.

It is appropriate to mention the 'multiplier effect' here. The multiplier shows the number of times money keeps changing hands. On account of tourism, people earn extra money although they may not have received anything directly from the tourists. This is so because people, earning directly from the tourists, spend money for their own 'requirements' , which thereby becomes the earnings/income of other people. These beneficiaries too will keep on spending, at least a part of their income.

TAX REVENUE

The Government of Goa has earned (and can further earn too) a part of its revenue from tourism. Tourism - involving both domestic and international tourists - contributed to both forms of tax revenue, direct and indirect. Sales tax, income tax, tax on profits/ earnings, license fees of different types, tariffs of different types, excise duties, luxury tax etc — all on account of tourism - have contributed to the state coffers. The luxury tax on account of tourism in Goa, by itself, contributes to about Rs. 16 crores per annum.

INFRASTRUCTURE

Tourism and infrastructure need one another. Goa has improved its infrastructure to quite an extent, as compared to what it was earlier — and this has been partly due to the influence of tourism *(difficult to say what is the exact influence of tourism on infrastructure)*. Thus, we have better / broader roads (at least in certain areas), improved transport, communication, banking etc. Not only tourists benefit from this improvement, but also the locals.

From the point of view of infrastructure however, there is a lot of scope for further improvement - both qualitative and quantitative. Goa has gained, but not much - a lot more can be done and has to be done. Erratic power supply, irregular water supply, breakdown of transport, lack of sufficient capacity at the only existing airport etc. are some of the areas which need to be looked into - and looked into fast.

DEVELOPMENT OF BACKWARD AREAS

Tourism has definitely helped certain 'not so developed' areas to develop, thereby helping the local population improve their standard of living. Coastal areas like Palolem, Utorda, Cavelossim, Fatrade, Betalbatim, Tirakhol, Anjuna, Baga etc. have all developed economically- mainly due to tourism. Till recently, they were all dormant areas with not much activity, with a large number of people gainfully employed elsewhere and those locally employed used to receive low incomes.

However, with all the potential that Goa has been abundantly endowed with, much more could and should have been done to the backward areas. Unfortunately, the same areas have been 'over burdened' with hordes of tourists on account of unimaginative, selfish planning or no planning at all. Areas coming under Quepem and Satari taluka get no tourists at all. Pernem and Canacona get only a few.

RETAIL TRADE, COTTAGE AND SMALL INDUSTRIES

Tourism and its growth has led to an increase in retail trade in Goa. Shops, business establishments, small stalls etc. have all increased and so also have the cottage and small manufacturing units producing items like handicrafts, mementoes, garments, wines and liquor etc. The employment and incomes of the people have thereby also increased.

NEGATIVE ECONOMIC IMPLICATIONS OF TOURISM ON GOA

RISING PRICES

Tourism has led to shortages, actual plus artificial. Actual shortages have arisen on account of demand exceeding supply and the artificial ones on account of diversion of items in favour of tourists since they have a superior money / spending power. Shortages have led to a rise in prices especially of items like fish and sea food, meat and poultry products, vegetables, fruits and even milk products. Rising prices and the consequent rise in the cost of living and erosion in the value of money has put a lot of strain – at least on the not-so-well-off people.

MIS-UTILISATION OF SCARCE RESOURCES

Goa is a small place and its resources have to be used in an optimum way. Tourism in Goa has led to, in many cases, mis-utilisation (and even exploitation and destruction) of the scarce resources — many times on account of selfish motives and short term gains (a la the eleventh hour stopped *Rave party* at Anjuna in end- Dec'99). Big stretches of land and coastal areas have been 'grabbed' by a few, big starred hotels. The case of mis-utilisation is no different in the case of power (used extensively on account of freezers, coolers, water heaters, air conditioners, water pumps etc) and water (used extensively on account of swimming pools, gardens / lawns, laundries etc).

BREAKDOWN OF EXISTING INFRASTRUCTURE

The way tourism is developing in Goa at present, at times all unplanned and haphazard, only certain areas are getting most of the tourists. The existing infrastructure of these areas are bound to collapse on account of tremendous pressure. Already strains are felt on water and power supply, transport and communication etc. It appears that the Optimum Carrying Capacity (OCC) has been crossed in many places like Benaulim, Colva, Anjuna, Calangute etc. A present only some of the coastal areas are developing, but not so the hinterland and talukas like Pernem and Canacona. Unless the less crowded areas (and Goa has been blessed by a number of beautiful sequestered places) are developed with proper planning, the infrastructure and other services will collapse putting the local population and the tourists in trouble.

INADEQUATE RETURNS

The returns from tourism, especially from international tourists, are much lower than what should have been. Way back in 1990, the Madrid based World Tourism Organisation (WTO) had stated that Goa, by the year 2000, would receive annually around 2.5 million tourists. However, this has not been so. Vis-a-vis the expenditure incurred in different ways to promote international tourism and the total number of tourists travelling worldwide (along with their spending), India - and especially Goa, is hardly getting anything. Less than 0.5% of the total foreign exchange generated worldwide on account of tourism is earned by India. The total foreign exchange earnings of India (from tourism) in 1998/99 was around Rs. 11745 crores *[Times of India, 05/02/99]*.

Charter tourism is an area of concern for Goa - for at present there is too much dependence on such tourists. Charter tourists and the foreign 'back-pack' tourists are the low-end, low-budget tourists, who, in sheer numbers form a big chunk of the foreign tourists coming to Goa. There is still a lot of potential for high-end tourists. Although they contribute, overall, a substantial amount - from the point of view of the large numbers involved, their contribution is negligible. When a London — Goa return trip plus 14 days in a hotel costs just around 100 to 140 pounds coupled with a spending of about 100 dollars a week in Goa (when it should have been at least 350 to 400 dollars) - not much can be said about the gains *[Panorama, Navhind Times, 01/11/98. ...and others]*. However, one point of comfort about the 'back pack' type of tourists and charter tourists (as compared to the well-heeled, high-

end tourists) is that, they stay for a longer duration and spend in such a way that the local population (through shacks, restaurants etc) benefit more directly. The higher-end, well—heeled tourists spending, is mainly earned by the big starred hotels which are usually owned by non-locals.

One possible way to improve the returns from international tourism is to, after proper study, adopt or at least experiment on the model adopted way back in Egypt, wherein visiting tourists had to spend a minimum predetermined amount fixed by the government — and, those tourists who could not spend this minimum amount were not permitted to enter. In this way returns improved and so also the pollution levels and congestion.

In a completely different context, our recent budget too is going to dilute the returns—the returns of hotels. Returns to hotels and thus profitability is expected to take a beating since the present budget has withdrawn tax benefits for earnings in foreign exchange under section 80 HHD of the Income Tax Act. As per the section, 50% tax deduction was applicable to hotels on total foreign exchange earnings and income tax exemption was extended to the balance 50% eanings if the amount was kept in reserve for new projects. The budget has now reduced the income tax exemption on foreign exchange income by 20% for the financial year '01, with the exemption set to be reduced annually by 20% until zero duty exemption is reached. According to S. S. H. Rehman, MD, ITC Hotels and President of Hotel Association of India (HAI), besides profitability dropping, there would be also a deceleration of investments in the hospitality service. [Economic Times 1/3/00]

OVER DEPENDENCE ON TOURISM

In Goa there is a growing over-dependence on tourism. More and more people are getting involved in tourism activities and investing a lot of money / resources. A large number of people are presently dependent exclusively on tourism for their livelihood. This is not a very good sign - for tourism fails (like it did in some of the Far East regions and even in parts of India during the Gulf war and when the plague struck Surat - and recrudescence of such things cannot be ruled out) in the absence of other alternative activities / occupations, there will just be misery. And it looks like we are heading for it with all unimaginative and shoddy planning. The present scene is such that even in the 'present good times', the overall year round occupancy rate in the various types of accommodation is below 2.5% [Mario Cabral e Sa in Panorama, Sunday Navhind Times-20/12/98]. Political instability, regional tensions, opening new virgin areas elsewhere, over crowding / congestion / pollution in the existing tourist destinations, overfamiliarity with the existing places, law and order problem, crimes against tourists or just rumours — can all lead to a collapse of the entire tourism setup. Taking account of all this it appears that the tourism industry is quite aleatory in nature and hence Goa should diversify into other activities also, instead of concentrating just on tourism, and thereby safeguard itself from any adverse eventuality.

CONCLUSION

Tourism in Goa is in the limelight. With the Master Plan for tourism on the anvil, with more and more 'hotels' coming up, with a shift (however slight) from beach tourism to business tourism - it has to be in the limelight.

Tourism has a number of backward linkages which need to be exploited so as to derive maximum benefit for the local people. At present the Goa government has not done much to develop and encourage auxiliary industries, including horticulture and poultry and meat and meat product industry(almost 80% of consumable items including meat, dairy products and vegetables come to Goa from outside) *[Herald, 17/10/98]*. To get the very best out of tourism, we in Goa need ratiocination , proper scientific planning, good co-ordination and dedicated, unselfish effort from different sectors (including Government departments, NGO's, local people, institutions etc), unbiased and correct assessments of projects /feasibility reports etc.

Experiences of places elsewhere have revealed the vicissitudes of the tourism industry and the state of trepidation it has put people into. We in Goa therefore have to learn from the experiences of others - we cannot be heterodox nor can we afford to have a 'tunnel vision'. If we do not take proper care of tourism, a *fortiori*, instead of being a big boon, it will end up as a curse - or a *'pyrrhic victory'* of sorts.

REFERENCES

- Batra, K. L (1990). Problems and Prospects of Tourism, Jaipur, Printwell Publishers.
- Seth, Pran Nath (1987). Successful Tourism Management, Sterling Publishers Pvt. Ltd.
- Batra, G.S. and Chawla, A.S. (Eds.) (1995). Tourism Management : A Global Perspective, New Delhi, Deep and Deep Publications.
- Chopra, Suhita (1991). Tourism and Development in India, New Delhi, Ashish Publishing House.
- Dr. Selvam, M (1989). Tourism Industry in India, New Delhi, Himalaya Publishing House .
- Bhatia, A.K. (1991). Tourism Development - Principles and Practices, New Delhi, Sterling Publishers Pvt. Ltd.
- Singh, Ratandeep (1996). Dynamics of Modern Tourism, New Delhi, Kanishka Publishers, Distributors.
- Sharma, K. K. (1991). Tourism in India, Jaipur, Classic Publishing House.
- Kumar, Maneet (1992). Tourism Today-An Indian Perspective, Delhi, Kanishka Publishing House.
- Dr. Negi, Jagmohan (1990). Tourism and Travel, New Delhi, Gitanjali Publishing House.
- Singh, Ratandeep (1996). Infrastructure of Tourism in India, New Delhi, Kanishka Publishers' Distributors.
- Chattopadhyay, Kunal (1995). Economic Impact of Tourism Development - An India Experience, New Delhi, Kanishka Publishers' Distributors.
- Various reports / pocket books of Department of Tourism, (Government of Goa) and Goa Tourism Development Corporation (GTDC).

APPLICATIONS OF BEZIER CURVES IN COMPUTER AIDED GEOMETRIC DESIGN

NEETA MAZUMDAR

Approximation of the circular arcs by polynomial curves is the fundamental issue in the practice of computer aided design. There are various methods used for Computer aided geometric design. Though these methods possess good approximation and computational properties but these are not always convenient for solving problems in engineering geometry associated with real world tasks and their, technological constraints. The objective of this paper is to show the importance and practical utility of bezier functions in computer aided design for engineering geometry. This paper presents methods for designing curves using bezier functions.

Keywords. Bezier functions, Data security, Cryptographic algorithms.

INTRODUCTION

The rapid development of new manufacturing technologies has generated ever stronger demands for effective methods of geometric description. " In the last decade alongside the classical method of curve description algebraic polynomials and trigonometric polynomials product and tool engineering have seen many new methods based primarily on polynomials splines and their numerous generalizations." (Othman, (1999) pg.-145).

A polynomial representations for circular arcs is not only simpler for the rendering and curve-curve intersection problems, it is of special interest of the aircraft and the automobile industries where surfaces are frequently constructed from curve involving circular arcs using lofting and skinning techniques. " Among the most widely known methods for description of smooth contour in geometric design are the Bezier functions. ", (Ligun, Shumeiko, Wooman (1997) pg.-446)

As a rule quadratic Bezier functions are used when there is one intermediate point between initial and final points of interpolation and cubic, if there are two intermediate points. If there are more points Bezier functions are often applied by reducing the task to one of the two previous cases, (Seeman Gerald (1999) pg.474)

Mrs. Neeta Mazumdar is Sr. Lecturer, Department of Mathematics, Rosary College, Navelim, Salcete, Goa.

Suppose we are interested in how the parametric curve looks for a constant t restricted to interval $0 \leq t \leq 1$ with the skills required so far one may have little trouble in making plots of some curves to this type. For some randomly chosen values of coefficients a, These coefficients form a set of 8 parameters that control the ultimate shapes of the curve but upon little experimentation one will discover that this control is clumsy and unpredictable at best. One has pretty good control near $t = 0$. But near $t = 1$ it is very hard to see how the eighth parameter determines the curve. Bezier's contribution was a different set of eighth parameters (linearly related to the eight parameter that gives the control over the shape of curve is a much more pictorial and intuitive manner).

Beziers' parameter are the coordinates of the control points in the plane. These points form a (non-closed) control polygon of the curve. The cubic Bezier curve associated with this control polygon is defined to be the curve parametrized by :

$$<x1, x2> = B(t)$$
$$= (1-t)^3 p^0 + 3t(1-t)^2 p + 3t^2(1-t) P^2 + t^3 p^3 + \ldots \text{ for } 0 \leq t \leq 1$$

AFFINE MAPS

Most of the transformations that are used to position or scale an object in a Computer graphics or environment are affine maps. The fundamental operations for the points are the barycentric combinations.

A map ϕ that maps E^3 into itself is called an affine map if it leaves barycentric combinations invariant. So if $x = \Sigma \alpha_i a_i$; $x, a_i \in E^3$ and ϕ is an affine map then also $\phi x = \Sigma \alpha_i \phi a_i \phi x$ and $\phi a_i \in E^3$. An example of affine maps that is used in font design is a 2D shear map.

The parabolas are plane curves however many applications require true space curves. Hence we use de Casteljau algorithm to generate a polynomial curve of arbitrary degree n :

Given: $b_0, b_1, \ldots b_n \in E^3$ and $t \in R$

Set

$$b_i^r(t) = (1-t) b_i^{r-1}(t) + t b_{i+1}^{r-1}(t)$$
and $$b_i^0(t) = b_i$$

Then $b^n_0(t)$ is the point with the parameter value t on the Bezier curve b^n is the point with parameter value t on the Bezier curve b^n.

The polygon P formed by $b_0, b_1, \ldots b_n$ is called Bezier polygon or control polygon of the curves b_n. Similarly the polygon vertices b_i are called control points of the Bezier curve. Sometimes we also write $b_n(t) = B(b_0, b_1, \ldots b_n, t)$ = B[P; t] or in short $b_n = B(b_0, b_1, \ldots b_n) = BP$. This notation defines B to be linear operator that associates the Bezier curve with its control polygon and the curve is $B[b_0, b_1, \ldots b_n]$ is the Berstien –Bezier approximation to the control polygon.

PROPERTIES OF BEZIER CURVES

Affine invariance: Affine maps are in the toolkit of every CAD system through these the objects must be repositioned, scaled and so on. An important property of Bezier curves is that they are invariant under affine maps which means that the following two procedures yield the same result :

(i)   First compute the point $b^n(t)$ and then apply an affine map to it.

(ii) First apply an affine map to the control polygon and then evaluate the mapped polygon at parameter value t.

Invariance under affine parameter transformations : Very often one thinks of a Bezier curve as being defined over the interval [0,1]. This is done because it is convenient and not because it is necessary; the de Casteljau algorithm is " blind" to the actual interval that the curve is defined over it, uses ratio only.

Convex Hull Property : For $t \in [0,1]$, $b^n(t)$ lies in the convex hull of the control polygon. This follows since every intermediate b_i^r is obtained as a convex barycentric combination of previous b_i^{r-1} at no step of the de castelejau algorithm do we produce points outside the convex hull of b_i. A simple consequence of the convex hull property is that a planer control always generates a planer curves. The importance is that the convex hull property lies in what is known as interference checking. Suppose we want to know if two Bezier curves intersect to each other, for example: each might represent the path of robot arm and our aim is to make sure that the two path, do not interact thus avoiding the expensive collision of the robots.

Endpoint interpolation : The Bezier curve passes b_0 and b_n.
We have $b^n(0) = b_0$, $b^n(1) = b^n$. This is easily verified by writing down the following equation :

$$b_0^r(t) = (1 - t)b_i^{r-1}(t) + tb_{i+1}^{r-1} + (t)$$

for the cases $t = 0$ and $t = 1$. In a design situation, the endpoints of a curve are certainly two very important points. It is therefore essential to have direct control over them, which is assumed by endpoint interpolation.

DESIGNING WITH BEZIER CURVES

While designing the Bezier curve one gets the impression that in some sense the Bezier curve "mimicks" the Bezier polygon. It is the reason why Bezier curve provided such a handy tool for design of curves; to reproduce the shape of a hand drawn curve, it is sufficient to specify a control polygon that somehow " exaggerates " the shapes of the curve.
Bezier curve of degree n is defined by :

$$B(t) = \sum_{i=0}^{n} c_i B_i^r(t); \quad 0 \le t \le 1;$$

Where C_i are the control points and $B_i'(t)$ are the Berenstein polynomials.
The figure below shows a Bezier curve:

From the inspection of the example one gets impression that in some sense the Bezier curves "mimicks' the Bezier polygon. It is the reason why Bezier curves provide such a handy tool for the design of curves. It is sufficient to specify the control polygon that somehow "exaggerates" the shape of the curve.

The derivative of a Bernstein polynomial $B_{i}n$ is obtained as :

$$d/dt \, B_i^n(t) \quad = d/dt \, {}^nC_i \, t^i(1-t)^{n-i}$$
$$= i \, n!/i!/i!(n-i)!t^{i-1}(1-t)^{n-i} - ((n-i) \, n! \, / \, i!(n-i)!) \, t^i (1-t)^{n-i-1}$$

thus
$$= n \, [\, B^{n-1}_{i-1}(t) - B_i^{n-1}(t) \,]$$

Hence we can also prove that

$$d/dt \, b^n(t) = n \sum_{j=0}^{n-1} b_i B_i^{n-1}(t); \, \Delta \, b_i \in R^3$$

Thus the derivative of a Bezier curve is another Bezier curve obtained by differencing the original control polygon.

To compute higher derivatives, we first generalise the forward difference operator. $\Delta \, b_i = b_{i+1} - b_i$
The iterated forward difference operator Δ^r is defined by $\Delta^r b_i = \Delta^{r-1} b_{i+1} - \Delta^{r-1} b_i$
And thus we get the formula for the rth derivative of a Bezier curves given by:

$$dr/dt^r \, b^n(t) = n!/(n-r)! \sum_{j=0}^{n-r} \Delta^r b_i B_i^{n-r}(t)$$

This derivative does not change if the translation is applied to the original curve.

A Bezier curve b^n is usually defined over the interval $[0,1]$ but it can also be defined over the interval $[0,1]$ but it can also be defined over any interval $[0,c]$, the part of the curve that corresponds to $[0,c]$ can be defined by a Bezier polygon. Finding this Bezier polygon is referred to as subdivision of the Bezier curve. Finding unknown Bezier points c_j can be done if we use the blossoming principle. Thus each c, is obtained by carrying out j de Casteljau steps with respect to c. Thus it turns out that the de Casteljau algorithm not only computes the points $b^n(c)$, but it also provides the control vertices of the Bezier curves corresponding to interval $[0,c]$. Instead of subdividing a Bezier curve we may also extrapolate it. Thus we find that Bezier curves are used for approximating shapes or for interpolation.

CONCLUSION

Hence it is clear that the Bezier curves are affine invariant symmetric and interpolating their first and last control points. Bezier curves are also known to be variation diminishing and to lie in the convex hull of their control points. It is these properties that make Bezier curve of practical value in the computer aided geometric design.

The material provided in this paper on Bezier curves and B-spline was not included for reasons of any deep geometric significance but rather for its practical utility in presenting curves. In almost every applications of computer graphics, what we ultimately require is output a picture. In the majority of cases such pictures are composed of number of curves.

REFERENCES

- Ligun, A.A., Shumeiko, E.D. Wooman; (1997). Asympotically optimum recovery of smooth contours by B'ezier curves., CAGD, 15, 446.

- Othman W.A.M. (1999). The dual basis functions for the generalized ball basis of odd degree., CAGD, 14 .

- Seemann Gerald, (1999). Approximating a helix segment with a rational Bezier curve., CAGD, 14, 474.

BERTA DE MENEZES BRAGANÇA
(A study of a Goan Short Story writer)

PRIYA CARVALHO E VIEGAS

In 1991 appeared a book of short stories titled 'Tales From Goa.' It was just a collection of stories already published in the Blitz and the Bombay Chronicle far back in the 1930s. A thin, frail young lady – who is more familiar to us as Goa's greatest woman freedom fighter – Berta de Menezes Bragança, penned them. These stories depict to us the sensitivity to human suffering, the keenness of observation of Goan village life and the subtle revolutionary spirit of a writer who can be considered as one of the first Indo-Anglian women writers in the country.

Born in Cuelim, Goa on the 17ᵗʰ of Dec.1911, Berta was the daughter of the renowned writer and thinker, Luis de Menezes Bragança. She never underwent any formal education, as her father had little faith in the Portuguese educational system, but under the able tutelage of her parents she educated herself and acquired a fluent working knowledge of English, Konkani, and Portuguese.

The first stirrings of the nationalist movement in Goa struck a chord in the heart of the 17 year old girl and these feelings remained the *raison d'etre* of her very existence from then till Goa was liberated by the Indian Army in December 1961. The humiliation that her people were subjected to, developed in her a resentment for the Portuguese rulers, and the dictatorial Salazar regime. It was her close association with her uncle T.B. da Cunha, that gave direction, to her discontent.

In 1929, she became a member of the Goa Congress Committee, an organization that was set up to fight for Goa's freedom from the Portuguese. In 1935, she joined and taught at Adarsh High School, Margao, infusing in her pupils the patriotic spirit, but after eleven years, her services were terminated because of her involvement in the freedom movement. With this development, she plunged whole-heartedly into the resistance movement and subsequently became the secretary of the Goa Youth League. She married Dr.Antonio Furtado in 1947, but the couple had to soon leave Goa as her husband refused to collaborate with the Portuguese rulers in denouncing Jawaharlal Nehru. They settled in Belgaum, where their house became a refuge and a meeting center for all Goan freedom fighters and others.

Mrs. Priya Carvalho e Viegas is Sr. Lecturer, Department of English, Rosary College, Navelim. This paper was presented as a Lectio brevis at the Inaugural Programme of the academic year 2000 – 2001, at Rosary College, Navelim.

In 1961, Berta undertook an intensive tour of India to build up national support for Goa's freedom, and in the same year she attended the Afro-Asian Women's Conference in Cairo. At the invitation of the Soviet women present at the conference, she went to the USSR and was able to build international solidarity for Goa's liberation movement.

Besides editing *Free Goa* – a bulletin giving news of the freedom struggle in Goa, she published three books: one, a biography of her father, the second, *Landmarks In My Time* and the third, a book of short stories titled The *Tales from Goa*. This paper is a humble attempt to appreciate and analyse the short stories of a writer *par excellence* who has seen life in its meanest and its most edifying aspects.

Berta's short stories try to create an awakening in the minds of Goans against all tyranny and oppression existing in society. Although she does not directly mention the freedom struggle in any of her stories, they subtly aim to make us aware of the injustice meted out to the Goans by the Portuguese. She speaks of hypocrisy of the upper classes of the Goan society, and exposes and satirically describes the extravagant and pompous life style of the landed gentry of the time. She revolts against the arrogant and domineering behavior of the "bhatkars" towards their "mundkars", and sketches the Goan care-worn faces of the labourers, the maidservants, the "poskims" (adopted children) and the Gauda community.

Berta in her fifteen short stories does not refer to the paradise of Goa. She does not paint the golden sunshine of Goa's sandy beaches, the blue skies, the swaying palms, nor the magnificence of its churches, nor the jasmine–like dreamy quality of its temples. Her Goa is not the paradise painted in dazzling colours. Although she does describe the scenic beauty of Goa in her story *Black Rocks of Betul*, the beauty is attached to poignant memories where selfishness has transformed man into an animal, and obscurantism clouded his clear vision. She depicts stark truth against the background of ignorance and poverty-the seething rage against the hard, naked rocks of reality.

Living during a period when Communism was at its peak, Berta was greatly influenced by the ideas of Karl Marx, Gorky and Victor Hugo. It is a point to be noted that her stories do not, at any juncture, refer to the caste system existing in India and Goa, but rather to the class system – of the haves and the have nots. She criticizes the feudalistic insensitivity towards the unfortunate classes and the communidade laws, which led to the exploitation of the cultivators by the shareholders.

Berta's stories are realistic and down-to-earth woven from episodes and happenings in and around the village. Considering that she lived a very sheltered social life they are based either on her own experiences, her reading, or on the gossip brought in by the servants. She depicts Goan culture giving attention to the minutest of details. Her meticulous description of the Goan wedding of her times, a typical funeral procession in the village, the rigged elections held during the Portuguese regime are memorable records for posterity.

Most of Berta's stories are set in the real locale of her own village-Chandor. The village as it exists till date, comes alive to the reader with its little railway station crowded before the arrival of the train, the palatial Menezes Bragança house, the fountain surrounded by the casuarina trees better known as *Caldas de Miranda*, the rickety chapel on the mount from where one can view the whole village "girdled by a lofty and unbroken chain of blue grey mountains"

Her English has retained the rustic flavour of the native Konkani idiom and she uses a lot of Konkani and Portuguese words to get across her message. The stories revolve round the Goan Christian society with a little mention of the Hindu community and deals with various topics like the exodus of Goans to Bombay in search of jobs, the exploitation of adopted girls, the evils of alcoholism and gambling etc. Her stories are indeed a pattern of black and white where tragedy and passion play a major role. Yes, she has been accused of exaggeration. However exaggeration is an essential element of all art. If Berta overdoes, she does it with boldness and sincerity of a writer intensely involved with the life of her people, and lacerated to the quick by silent suffering.

To conclude, I would like to quote Manoharai Sardessai who says " Berta's stories are slices of life, fresh and raw, bedewed with tears and at times dripping with blood. They do disturb us only to awaken us to a newer, richer life where 'man's inhumanity to man' will forever cease."

REFERENCES

— Cruz,Antonio. (1974) Goa - Men and Matters, Vasco da Gama, Ashok Printing Press,.

— Menezes Bragança, Berta. (1992) Landmarks in My Time, Margao, Author.

— Menezes Bragança, Berta. (1991) Tales From Goa, Bastora, Tipografia Rangel.

IS INTERNET CREATING NEWER COMMUNITIES REVITALIZING CITIZEN-BASED DEMOCRACY?

AFONSO BOTELHO

From almost total obscurity, Internet swiftly leapt into our lives. Once an arcane communication medium for academics and researchers it now sustains almost any human activity you can imagine. Millions of people on every continent use it to exchange pleasantries and argue, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, etc. You can't kiss anybody and nobody can punch you in the nose, but a lot can happen on Internet. To the millions who have been drawn to Internet, the richness and vitality of computer- linked activity is attractive, even addictive. For us it is still a young technology and most of us are pretty young in our use of it.

The Internet explosion happened so rapidly that we have not had much time to step back from the medium and look at it more systematically, as a new environment that can have potent effects on our behaviour and society. Research about actual online behaviour is still sparse, although it is quickly attracting the attention of scientists in many disciplines.

INTERNET ENVIRONMENT

Internet is not just one environment but also several. The first is the *World Wide Web*, when it is used as a kind of library and magazine rack and also as a self-publisher. Internet users complain bitterly about navigation problems but most people say they can find what they are looking for at least half the time. *Electronic Mail* has become a vitally important Internet environment for net users, who now consider it to be side by side with the web as an indispensable technology. You know you are addicted to Internet when you get up to go to the toilet at 3 a.m. and stop to check your e-mail on the way back to bed. Another distinctive space on the Internet is the *Asynchronous discussion forum*. These are the ongoing conferences in which participants start topics, post replies to each other and read what others have said. They are asynchronous in the sense that you can catch up on the discussion and contribute your thoughts at any time of day or night. In these groups, you become part of a discussion among people with similar interests, regardless

Mr. Afonso Botelho is Sr. Lecturer, Department of Sociology, Rosary College, Navelim. This paper was presented as a Lectio brevis at the Inaugural Programme of the academic year 2001 – 2002, at Rosary College, Navelim.

of their geographic location. Another flavour of asynchronous discussion forums is the collection of conferences known as newsgroups on a distributed Bulletin Board systems called *Usenet*. This is one of the oldest Internet niches, and the forums span every conceivable human interest - from the scholarly to the salacious. *The Synchronous Chats* are the fourth environment on Internet. When people are online at the same time, they can enter chat rooms to engage in a kind of real time conversation with the others in the room. Besides these, some other environments are the *MUD (Multi-user Dungeons), Meta-worlds, Internet-based interactive video and voice, etc.*

These different Internet environments using computer-mediated communication technology link people around the world in numerous ways. A few years ago, Internet was open to only a limited group, chiefly academics and researchers. Today, however, network access can be purchased commercially and suddenly the number and diversity of Internet users has expanded by leaps and bounds. The most important aspect of the emerging communication technologies is that people are moving away from their televisions and are again communicating with one another. There are people who spend large amounts of time logged-on and who lead emotionally stimulating and satisfying lives in cyberspace. An inevitable outcome of this availability of computer-mediated communication technology has been the creation of newer and newer communities on line. An explanation for these phenomena may be the hunger for community that grows in the breasts of people around the world as more and more informal public spaces disappear from our real lives. These new media attract colonies of enthusiasts because computer-mediated communication enables people to do things with each other in new ways and to do altogether new kinds of things. Today, thousands of online communities exist and more come on line everyday focussing on many topics including health, religion, education, culture, community, sports, pets, children, old age, professional issues, etc.

CAN COMPUTER-MEDIATED COMMUNICATION CREATE TRUE COMMUNITIES?
Communication is vital to communities both online and offline. Communication creates, recreates and maintains community through the continued interaction of participating members. However, the technological ability to communicate does not in itself create the conditions of community. There has arisen, therefore, a controversy around the idea of online communities. One of the main issues is whether the online communities can be considered communities at all. A vast majority argues that communities formed in cyberspace are true communities that contribute to the common good of humanity. Community depends not only upon communication and shared interests but also upon 'communion' a term often chosen to describe a spiritual emotional, or 'human' feeling that comes from the communicative coordination of oneself with others and the environment. Rhinegold's definition of virtual community reflects this understanding of community

when he defines them as 'social aggregates that emerge from the net when enough people carry on .... public discussions long enough with sufficient human feeling, to form webs of personal relationships in cyberspace. According to Rhinegold and others, the notion of virtual community is not to be dismissed as technological, cyberpunk fantasy in which people increasingly live in 'second hand worlds'; chained to their computer terminals, experiencing life through dehumanizing technology rather than through human contact and intimacy.

Indeed, Rhinegold discusses in length the passionate character of his on-line relationships within cyberspace and particularly within the WELL (Whole Earth 'Lectronic Link), a San Francisco- based conference site. His relationships in the WELL community have spilled over into his personal life where he has attended weddings and funerals for his fellow WELL community members. The primary reason why CMC researchers like Rhinegold came up with the community metaphor to originally describe online interaction forums is that *it feels right*. When one looks into a virtual forum, it feels like what one knows as a community.

Another aspect of community, which hastens the word's metaphorical use in studies of CMC, is that the word 'community' has been used in anthropology to draw distinctions between groups of people and ideas. The notion of community as *institutionally distinct groups* is supported by the social organisation of the Usenet Bulletin Boards into areas of common interest. A CMC groups' internal development of expressions by members of that group, and which draw distinctions between those who are internal and external to the group, can be taken as an indication that something akin to community as an institutionally distinct group is developing.

Another element of community is a *shared symbolic system*. These symbols are generally called emoticons – the ;o) smileys, the *g* to grin, the *smooches* to convey feelings and information which we would transmit through (sometimes unconscious) non-verbal symbols in a physical interaction. Each virtual community has their own variations or specific set of emoticons which are prevalent in use, and which are known to each member of that community. *Intimacy* is an important feature of community. Nessim Watson writes, "Our understanding of community includes not just the presence of intimacy but the actions which are collectively taken to achieve and to preserve it. The continual internal battles of a growing group of people with different levels of intimacy are a primary characteristic of offline community. The social aggregations online should therefore be measured not simply for group intimacy, but also for the process of attaining and maintaining it". As populations grow there is an increase in organisational movements to protect the values and norms of the communities. Many online groups appear to be communities not just because their members share similar goals, but

also because those goals and the core values to be protected are developed through the same communicative process by which all communities establish their borders and values. Anthony Giddens has described this emergent construction of community values and norms as structuration. Structuration is the process by which the structure or rule set of a community is formed from the continual interaction of individual participants. This structuration activity can be taken as a sign of group intimacy and therefore as a sign of community.

RETHINKING COMMUNITY AND THE REVITALISATION OF DEMOCRACY.

We have to rethink about the notion of community in the face of Internet. We need to stop thinking of community as shared communication in the same physical space. By removing the need for a shared physical space participants have a chance to meet, interact with (and judge?) people for what they are (intellectual and emotional personality) rather than for some physical aspect of their lives. Just as the emergence of nation-states transformed the meaning of 'community' to fit a new world situation, so, the rise in CMC technologies is operating to alter the meaning of this term again. In applying this metaphor to something new CMC theorists are not simply expanding the definition of community, they are changing it, and may be changing it for the better.

The most glaring offender in the terminology is the most popular term of all: virtual community. Experience has been that people in the offline world tend to see online communities as virtual but that participants in the online communities see them as quite real. In Marxian terms, recognition of themselves as a community is the first step to creating the common consciousness that enables attempts at improvement in the conditions of the participants' daily lives. Using the word virtual implies that what we are trying to call community is not actually community. This distinction tells us immediately that online phenomena are not real communities. By accepting the distinction between real and virtual communities we will blind ourselves to recognising that these online collectivities may be the new form which representative democracy is taking.

Representative democracy means that individuals need to form groups if they hope to be represented at all. Internet offers an improved set of tools for the formation of groups or communities and for their struggles to be represented in the public sphere. Online communities are formed around a common interest. Thus participating in one of these communities, one can maintain the assumption that every one involved is actually interested enough to initiate their own participation in the community. These volunteer communities are certainly better than the structured communities created by coincidences of geographical proximity that almost always have the experience of pulling together against the will and desire of many individual members.

The idea of modern representative democracy as the enlightened philosophers first conceived it included recognition of a web of citizen-to-citizen communications known as civil society or public sphere. By "public sphere," we mean first of all a domain of our social life in which such a thing as public opinion can be formed. Although elections are the most visible fundamental characteristics of democratic societies, these elections are assumed to be supported by discussions among citizens at all levels of society about issues of importance to the nation. If a government is to rule according to the consent of the governed, the effectiveness of that government is heavily influenced by how much the governed know about the issues that affect them. The mass-media-dominated public sphere today is where the governed now get knowledge; the problem is that commercial mass media, led by broadcast television, have polluted with barrages of flashy, phony, often violent imagery a public sphere that once included a large component of reading, writing, and rational discourse. The political significance of CMC and the newer communities lies in its capacity to challenge the existing political hierarchy's monopoly on powerful communications media, and perhaps thus revitalize citizen-based democracy. The way image rich sound-bite based commercial media have co-opted political discourse among citizens is part of a political problem that communications technologies have posed for democracy for decades The way the number of owners or telecommunication channels is narrowing to a tiny elite, while the reach and power of the media they own expand, is a converging threat to citizens. Which scenario seems more conducive to democracy, which to totalitarian rule: a world in which a few people control communications technology that can be used to manipulate the beliefs of billions, or a world in which every citizen can broadcast to every citizen?

In classical Greece, in the centre of every large settlement, in the shade of the temples and civic buildings, was something known as the *agora*. The agora was part marketplace, part meeting place, part town hall, and part social club. It was the place where people met to gossip, discuss the news and thrash out issues confronting the State. The agora (or the *fora* (forum) in Rome) was the informal public space where people could discuss and debate any issue of importance. The agora was personal, passionate, and — if you waited long enough — a direct link to everyone in your community. The *agora* was not only the public political arena; it was also the third place of its society. To Oldenberg the third place after 'the place we live and the place we work' is the place we gather for conviviality. Many who are familiar with the idea of the *agora* see elements of such a public space in the Internet. It is a participant designed controlled and patrolled space for communication. It allows for those who may otherwise have no outlet in which to express their opinions to be heard. It is a space conducive to debate and argument, to revitalizing the public sphere. It allows for you to hear other opinions. It is a space that, theoretically, allows for greater democracy to flourish.

"A necessary condition for the development of a strong and positive democratic political identity is the ability to talk about politics with others. Individuals must recognize that they are important entities in the political sphere and they must take their roles seriously to achieve full involvement in democracy (Thornton, 2000). The nature of CMC provides individuals with opportunities that they might not be able to experience otherwise. "On the Net, I see a culture of people who – in jarring contrast to the offline world – line up to express their civic opinions, participate in debates, even fight for their political beliefs. Where freedom is rarely mentioned in mainstream media, it is ferociously defended – and exercised daily – on the Net" (Katz, 1997). Perhaps the most democratizing aspect of the Internet is the ability for people to organize and communicate in groups or communities. It is within the context of electronic free assembly and association that citizens will gain new opportunities for participation and a voice in politics, governance, and society.

CONCLUSION

Rethinking the notion of the term 'community', therefore, will assist the larger project of revitalising the democratic process and finding pathways to social change. The idea of democracy modeled in virtual communities through political debate among citizen is positive and worth promoting. However, we must not let our zeal for new technologies blind us to the fact that it is solely a medium for democracy with all the difficulties and inherent problems we associate with non-electronic democracy. I leave open the question whether the changes are for good or bad. Only time will tell. In the meantime it seems wise to take cyberspace seriously as a new and developing experience. I end with a quote from Rhinegold. He writes "I think there is time to prove the democratic potential of the medium by using it properly. Electronic communication does not offer a utopia, but they do offer a unique channel for publishing and communicating, and the power to publish and communicate is fundamental to democracy.

BIBLIOGRAPHY

Baym. (1995). The Emergence of Community in Computer-Mediated Communication. In S. G. Jones (Ed.), *CyberSociety: Computer-mediated communication and community*, Thousand Oaks, CA: Sage

Clift, S. (1999). A wired agora Minneapolis, citizen participation, the Internet and Squirrels. On-line. Available: http://www.publicus.net/present/agora/htm

Fernback, Jan and Thompson, Brad. (1995). Virtual communities: Abort, Retry, Failure. Available: http://www.well.com/user/hlr/texts/Vccivil.html.

Jones, S. G. (1995). Understanding Community in the Information Age. In S. G. Jones (Ed.), *CyberSociety: Computer-mediated communication and community*, Thousand Oaks, CA: Sage

Jones, S. G. (Ed.) (1997). Virtual Culture: Identity and Communication in cyber society. New Delhi: Sage.

Katz, J. (1997). Birth of a digital nation. Available: http://www.wired.com/wired/5.04/neitzen.htm

MacKinnon, R. (1995). Searching for the Leviathan in Usenet. In S. G. Jones (Ed.), *CyberSociety*, op. cit., pp. 112-137.

McLaughlin, M., Osborne, K., & Smith, C. (1995). Standards of Conduct on Usenet. In S. G. Jones (Ed.), *CyberSociety*, op. cit., pp. 90-111.

Oldenburg, R. (1991). The Great Good Place. New York: Paragon House.

Rhinegold, H. (1991). Virtual Reality. New York: Touchstone Books.

Rheingold, H. (1993). The Virtual Community: Homesteading on the electronic frontier. New York, Harper-Collins. s

Thornton, A. (2000). Does internet create democracy. Available, http://www.wr.com.au/democracy/intro.htm

Turkle, S. (1995). Life on the Screen: Identity in the age of the Internet. New York, Simon & Schuster

Wallace, Patricia.(1999). The Psychology of the Internet. Cambridge: Cambridge University Press.

Willemse, Lisa. (1997)Some Perspectives on Virtual Communities. Available: Lawillem@acs.ucalgary.ca.

भास आनी भाशेचो उपेग : एक अभ्यास

भालचंद्र गांवकार

भास सगले लोक उलयतात. पुण भाशेविशिंचें तांकां गिन्यान आसताच अशें ना. भाशेविशींच्यो जायत्यो चुकीच्यो कल्पना लोकांच्या तकलेंत आसतात. जी भास उलोवक मेळटा ती भास. भाशेचो पयलीं उलोवपाखातीर उपेग जाता आनी उपरांत ती बरोवपाखातीर वापरतात. पूण सगल्याच भासांक लिपी आसताच अशें ना. संवसारांत हजारांनी भासो आसात. पूण सगल्योच बरोवपाखातीर वापरीनांत. कितल्याश्याच भासांचो उपेग फक्कत उलोवपाखातीर जाता.

भास ही नादरूप आसता. तोंडातल्यान उच्चारिल्लो अर्थ आशिल्लो नाद म्हळयार भास. मनीस आपणाल्या तांडातल्यान कितलेशेंच तरंच आवाज वा नाद काडपाक शकता. पूण तांकां सगल्यांक अर्थ आसताच असो ना. ह्याच खातीर कुरवांची भास, सवण्यांची भास हांकां भास अशें मानिनांत.

भास कशी तयार जाता ताची एक प्रक्रिया आसता. तशेंच भाशेचो उपेग तरेकवार रिर्तींनीं जाता. देखीक भाशेक लागून मनीस आपणाल्या मनांतले विचार दुसऱ्यांक सांगपाक शकता. त्या भायर भाशेक लागून मनशाचे विचार वाडटात. भाशेचो मुखेल उपेग उलोवप हो आशिल्ल्यान उलोवपाखातीर भाशेचो उपेग चड प्रमाणांत जाता. बरोवप हो भाशेचो आनीक एक उपेग आसा. पुण तो मुखेल उपेग अशें म्हणपाक जांवचेनां. भासांचो जल्म केन्ना जालो ते विशीं निश्चितपणान आमच्यांनीं सांगपाक जायना. पूण बरोवपाखातीर तांचो उपेग खूब उसरां जालो. भास वरयल्या उपरांत तिचो वाचपाखातीर आनी शिकपाखातीर उपेग जावपाक लागलो.

भाशेच्यो वेगवेगळयो तरा आसतात. त्यो भाशेच्या उपेगावेल्यान लक्षांत येतात. देखीक आमची सदांची वावराबळीची भास कार्यालियांतले भाशेपरस वेगळी आसता. त्या भायर ग्रांथिक भास, उलोवपाची भास, प्रादेशिक भास, तंत्रिक भास आदीं भाशेच्यो तरा आमकां पळोवक मेळटात.

ह्या सगल्या गजालींचो विचार ह्या लेखांतल्यान करपाचो यत्न केला.

Mr. Bhalchandra Gaonkar, is Sr. Lecturer, Department of Konkani, Rosary College, Navelim, Goa.

'भास' हें उतर 'भाष्' ह्या मूळ संस्कृत उतरावेल्यान तयार जालां. 'भाष्' म्हळयार उलोवप'. जी बरोंवक मेळटा ती भास असो चुकिचो समज लोकांमदीं आसता. भाशेविशींची ही चुकीची कल्पना तकलेंतल्यान काडून उडयल्यावगर भाशेचो अभ्यास करूंक जांवचेना. सगळयांत पयलीं एक गजाल आमीं मर्तींत धरूंक जाय. ती म्हळयार भास ही तोंडातल्यान भायर सरपी, म्हळयार मौखिक क्रिया आसता. जी उलोंवक मेळटा ती भास. भाशेचो पयलीं उलोवपाखातीर उपेग जाता आनी उपरांत ती बरोवपाखातीर उपकारायतात'. पूण सगळयाच भासांक लिपी आसताच अशें ना. संवसारांत कितल्योश्योच हजारानीं भासो आसात पूण त्यो सगळयोच बरोवपाखातीर उपकारायतात अशें ना. कितल्याश्याच भासांचो उपेग फक्कत उलोवपाखातीर जाता. त्यो अक्षररूपान अजून येंवक नांत. देखीक, जे रानटी, माकडमाण्यांसारखे लोक उलयतात ती भास, आदिवासींची भास जांव आफ्रिकेंतल्या रानटी जमातीची भास जांव. ती अजुन मेरेन बरोवपाखातीर उपकारांवकना.

भास ही नादरूप आसता. तोंडातल्यान उच्चारिल्लो, अर्थ आशिल्लो 'नाद' म्हळयार भास. मनीस आपल्या तोंडातल्यान कितलेशेच तरेकवार आवाज काडूंक शकता, उच्चारुंक शकता. हे सगळेच आवाज वा नाद भाशेंत येतात अशें ना. दर एके भाशेंत तोंडातल्यान उच्चारुंक जातात अशे वेंचीक 'नाद' वापरिल्ले आसतात. ह्या वेंचीक अश्या नादांची रचणूक करतकीत त्या नादांच्या चोम्यांतल्यान एकादो अर्थ उक्तो जाता .

नादांच्या चोम्यासावन तयार जावपी उतराक अमुकूच असो अर्थ आसना. पूण उपरांत खंयच्याय गजाली विशीं एकादें उतर वापरलें म्हण्टकीत कांय तेंपान तें उतर ते गजालीपुरतें मर्यादीत जाता. तें उतर चड लोक वापरुंक लागले म्हण्टकीत ताका अर्थ लागू जाता. अशींच उतरां – उतरां मेळून आपशींच भास तयार जाता. ती बळयां घडोवपाची गरज ना. जायते खेपो दुसरे भाशेंतले उतर एकादे भाशेंत भरसून वता. पूण अशें जालें तरीय ते भाशेक उणेपण येना. वेल्यान ती भास उतरावळीन गिरेस्त जांवक पावता. मनशाच्यो गरजो जश्यो वाडत वतात, तशी ताची भाशेची उतरावळ वाडत वता. जितलीं उतरां एकाद्रया शारांत रावपी आनी सुदारिल्ल्या मनशाच्या उलोवपांत येतात तितलीं तीं रानांत रावपी आनी सुदारुंक नाशिल्ल्या मनशाच्या उलोवपांत येनांत.

सगळयांत पयलीं जेन्ना मनीसजातींची निर्मणी जाली तेन्ना ताची मुखेल अशी गरज एकूच आशिल्ली. ती म्हळयार अन्न. तेन्ना सुरवातीक तांची भास तयार जाली ती

'अन्न' (जेवण – खाण) आनी कांय मुखेल अशा गरजांपुरतीच आशिल्ली. उपरांत ताका आसऱ्याची गरज दिसूंक लागली. आसऱ्या उपरांत ताका न्हेसण जायशें दिसपाक लागलें. अशे तरेन गरजांवांगडा भाशेची उतरावळ आनी गिरेस्तकाय वाडत गेली.

भाशेचो म्हळयार उलोवपाचो प्रयोग जायत आसता. एक मनीस उलयता आनी दुसरो आयकता. उलोवप्याच्या तोंडातल्यान जे नाद भायर सरतात ते आयकुप्याच्या कानांमेरेन पावतात. आनी तांची रचणूक सारकी आसत जाल्यार त्या उलोवपाचो अर्थुय ताका कळटा. वांगडा ताका कितें सांगपाचें आसा तेंय कळटा. मनीस आपल्या मनांतलो विचार जांव उर्फके दुसऱ्यांक कळीत करपाखातीर भाशेचो वापर करता.

भास हें मनांतल्यो भावना उक्त्यो करपाचें साधन आसा. मनांतल्यो भावना उक्त्यो करप हेंच भाशेचें मुखेल लक्षण आसा. सवर्णीं आनी सावदां हांकांय भूक, भंय सारख्यो मुळाव्यो गरजो आनी भावना उक्तावपाक कळटात. म्हळयार तांकांय नाद निर्माण करून संपर्क करपाक कळटा. पूण हो नाद सैमीक आसता. तातूंत बुध्दीचो इल्लोय वापर जाल्लो नासता.

मनशाची भास ताच्यार बुध्दीतल्यान तयार जाल्ली आसा. ती फक्कत सैमीक आसून एकटया दोगांपुरती मर्यादीत आसना. ती संपर्कांभायर भावना, विचार उक्ते करप, तांची जतनाय करप हींय कामां तितल्याच मेकळेपणान करता. मनशाच्या भाशेंत सर्जनशीलताय आसता. मनशाच्या भाशेंत आशिल्ल्यो शक्ती सावदां – सुकण्यांच्या वा मनशान निर्माण केल्ल्या कॉम्पूटरासारख्या माकनांनीं येंवकूंच शकनांत. भास ही मनशान निर्मिल्ली कृत्रिम आसली तरीय तिची कृत्रिमताय आमकां दिसून येना. आमीं वेगवेगळया संदर्भांत आनी वेगवेगळ्या कामांखातीर भाशेचो मुक्तपणान वापर करतां. भास लेगीत आमचीं सगळीं कामां वेसवरे रितीन पुराय करता. आमीं मनीस देखावांची वर्णनां करतां, बाजू मांडटां, घडणुको आनी प्रसंगांच निवेदन करतां, तरेकवार कल्पना मांडटां, गुढ विचार उक्ते करतां. हीं सगळीं कामां आमीं भाशेच्या मजतीन पुराय करतां.

समाजांतल्या दर एका मनशाक 'भास' येता. कांय जाणांक एकापरस चड भासो कळटात. कांय जाणांक बळयां चड भासो शिकच्यो पडटा. समाजाच्या विंगड – विंगड घटकांक एकामेकावांगडा सहकार्य करचेंच पडटात. तें संपर्कांबिगर जांवक शकना. हो संपर्क भाशेच्या माध्यमांतल्यानूच जाता. अशे तरेन समाजाचे सगळ

घटक भाशेचो वापर करतात. समाजाची जशी उदरगत जाता तशी नवीं सत्यां, विचार, कल्पना मुखार सरतात. तेन्ना तांच्या अभिव्यक्तिखातीर नव्या उतरांची गरज पडटा. देखून नवीं उतरां घडोवचीं पडटात. अशी भाशेची एकसारखी वाड जायत रावता. ही वाड जावपाक समाजाच्या सगळ्या घटकांचो हातभार लागता. अशे तरेन भास ही एक समाजीक संस्थाच आसता.

विचार करप, उलोवप, आयकप, वाचप आनी बरोवप हीं भाशेचीं मुखेल अशीं कामां आसात.

भास आनी विचार

मनशाच्या मनांत येवपी दर एक विचार भाशेंतल्यांनूच येता. आमच्या मनांत घट जाल्ले एकादे गजालीक आमीं विचार अशें म्हणटां. 'हालीं राजकारण हळशीक जालां', 'बऱ्या मनशान राजकारणांत पडचें न्हय', 'संवसार आयज खूब मुखार पावला' – असले हे जे़ विचार मनशाच्या मनांत येतात ते भाशेक लागुनूच येतात. मात ही विचारांची प्रक्रिया मनांतल्या मनांत घडटा. ती दोळ्यांक दिश्टी पडना. पूण तिची जाणविकाय जाल्या वंगर रावना.

केन्ना केन्नाय एकादो बरो ग्रंथ वाचल्याउपरांत आमच्या मनांतले विचार उक्ते जातात. विचार तकलेंत उप्रासतात आनी ते भाशेचें रुप घेतात. दुसऱ्याच्या विचारांक लागून जरीय आपले विचार उक्ते जाले तरीय ते भाशेंतल्यांनूच येतात, भाशेच्या परिसरांत वावुरतात आनी भाशेचें रुप घेवन प्रगट जातात.

भास आनी उलोवप

उलोवप हें भाशेचें सगळ्यांपरस चड म्हत्वाचें आनी मुळावें कार्य आसा. 'भाष्' ह्या धातूचो अर्थूच उलोवप, उमाळे उक्तावप, सांगप, वर्णनां करप असोच जाता. मोनो मनीस सोडलो जाल्यार हेर सगळे लोक उलयतात. मनीस आपणालें जिवितभर खूब उलयता. उलोवप हें भाशेचें मूखेल कार्य आसून बरोवप हें दुय्यम स्वरुपाचें काम आसा. डी. डब्लू. रीड हाणें आपणाल्या 'A Theory of Language, Speech and Writing' ह्या लेखांत जायत्या जाणांचे भाशेविशींचे विचार सांगल्यात. मनीस उलोंवक लागल्यार सुमार पांच लाख वर्सा जालीं. जाल्यार बरोवपाक लागल्यार फक्कत पांच हजार वर्सा जाल्यांत. सद्याक अस्तित्वांत आशिल्ल्या दर एका भींसाची एक वा

चड भासो आसात. पूण जंय कांयच दरोवन दवरपाची रीत ना अशे हजारानीं भीस अस्तित्वांत आसात. मनशाक उलोवपाची शक्त घड यल करींनासताना जोडूंक जाता , पूण वरोवपाची संवय खूव उसरां आनी जायत्या कश्टां उपरांतूच जांवक शकता. ज्या समाजाक वरोवपाची कला खवर आसा असल्या समाजांतल्या सगळ्या जाण्ट्यांक बोलीभास बरी खवर आसता. पूण वरोंवक सगळ्यांक जमना.

हे वेगवेगळे विचार डी. डब्लू. रीड मानून घेवपाक तयार ना. ताच्या मताप्रमाण एकाद्रया मोन्या आनी भयऱ्या मनशाक व्हड जालो तरीय उलोंक येना पूण वरोंवक येता. त्या भायर एकादो वाचपी जितले गतीन वाचता तितले गतीन एकादया उलोवप्याक उलोंवक जमना.

स्वरयंत्रांतल्यांन भायर सरपी आनी आयकूंक येवपासारख्या नादरुपी भाशेक phonic substance अशें म्हण्टात. एका मनशाक जेन्ना दुसऱ्या मनशाक एकाद्री गजाल कळोवची अशी दिसता तेन्ना ताका मौखिक वा लिखित भाशेचोच आदार घेवचो पडटा. हे गजालीक संकर्प सादप वा विनिमय करप अशें म्हण्टात. हो विनिमय घडून येवपाक उण्याच दोन मनशांची गरज आसता. तातूंतलो एक उलोवपी आनी दुसरो आयकुपी. हे दोगूय विनिमयांत सामील जाल्ले आसतात. असल्या विनिमयांत कोणतरी कोणाकडेनतरी खंयच्यातरी विशयासंवंदान वा प्रसंगासंबंदान खंयच्यातरी भाशेच्या आदारान कितेंतरी उलयत आसता. उलयल्लें सोपता. देखून तें आयकुप्याक परतें परतें आयकूंक मेळना. ह्या उलोवपांत विशयाचो संदर्भ पुरायतेन, त्या उलोवपांतलें व्याकरण शुघ्द नासता. कितलींशींच वाक्यां अपूर्ण आसतात. कांय वाक्यांतले सगळे उच्चार सारखे आसनांत. जायत्या वाक्यानीं क्रियापंदा नासतात तरीय उलोवप हेंच भाशेचें मुखेल कार्य आसता.

भास आनी बरोवप

बरोवप म्हळयार धव्या कागदाचेर काळ्यो वा हेर रंगांच्यो कुरवो करप. जेन्ना एकाद्रो मनीस आपणाल्या मनांतले विचार वरोवन वा छापून दुसऱ्यांक कळयता तेन्ना ते भाशेक Graphic Substance अशें म्हण्टात. चित्रलिपयेच्यो भासो सोडल्यार हेर भासो थारिल्ल्या आनी मर्यादीत कुरवांनीं वा खुणांनी वरोंवक मेळटात. देखीक देवनागरींतल्यो चडश्यो भासो १६ स्वर ३९ व्यंजनां, १० आंक आनी १३ विरामचिन्हां मेळून ७८ संकेतांच्या (Symbols) आदारान वरोंवक

जाता. अशेतरेन बरोवप व छापप ही संकेतांची भास आसता. तिका Code अशें म्हणटात.

उलयल्लें उतर बान्यार हुबता पूण बरयल्लें वा छापिल्लें तशें उरता. आमीं बरयल्लें वाचतां. ताचो अर्थ समजलो ना जाल्यार थांबतां आनी गरज पडल्यार फाटलो मजकूर परतो वाचून काडटां. ही खास सोय आशिल्ल्यान बरयल्लो वा छापिल्लो मजकूर जायते फावट विनिमय सादूंक शकता.

पूण उलोवप एकूच फावट विनिमय सादूंक शकता. त्या भायर छापणावळीची सोय आशिल्ल्यान छापिल्लो मजकूर कितल्याश्याच सुवातिनीं आनी जायत्या मनशांमेरेन पावूंक शकता.

बरोवपाची भास उलोवपाच्या भाशेच्या मानान चड शुध्द, बेवस्थीत आनी ठाकठीक आसता. वाचपी बरयल्ली भास शांतपणान आनी बारीकसाणेन वाचता देखून बरोवपी लेगीत ती सामकी काळजी घेवन बरयता. उलोवपाच्या भाशेंत सभाविकपणान जीं अवेवस्थितपणां, विस्कळितपणां, अशुध्दपणां, आदीं दोश आसतात ते बरोवपाचे भाशेंत येवचे न्हय हाची जापसालकी बरोवपी घेता.

भास आनी वाचप
बरयल्लें वा छापिल्लें बरप आमीं दोळयांनीं पळयतां आनी ताचो अर्थ समजून घेतां. कित्याकतर तें वाचप्यान वाचचें, समजून घेवचें आनी ताका फावो तो प्रतिसाद दिवचो अशी बरोवप्याची अपेक्षा आसता. पूण ही अपेक्षा सदांच पुराय जाताच अशी ना. आमीं वाचता आसताना कागदांवयल्यो बरयल्ल्यो वा छापिल्ल्यो कुरवो वाचतां. त्यो कुरवो बळखिच्यो आसून लेगीत आनी बरयल्लें आडखळनासताना वाचूंक जाता पूण तें बुध्दीक समजताच अशें ना. देखुनूच वाचप म्हळयार सदांच समजप अशें न्हय.

भाशेच्यो तरा ঃ
भाशेच्यो वेगवेगळयो तरा तांच्या उपेगावेल्यान लक्षांत येतात. देखीक, आमची सदांची बावरावळीची भास कोर्ट कार्यालयांतले भाशेपरस वेगळी आसता. कित्याकतर दर एके सुवातेर भाशेचो वापर वेगवेगळीं उद्दिश्टां साध्य करपाखातीर करतात. भाशेच्यो वेगवेगळयो तरा जायत्या भास –

अभ्यासकांनीं सांगल्यात. क्रिस्टल आनी डेव्ही हांच्या मता प्रमाण भास जायत्या तरांची आसता. तांणी तिचे अशेतरेन कांय प्रकार सांगल्यात. देखीक – दुरदर्श नावयली जायरातींची भास. खबरेपत्रांतल्या जायरातींची भास, भौशिक व्याख्यानांची भास, लेखी सुचोवण्यो आनी आदेशांची भास, प्रशासकीय कार्यालयांची भास, कायघाची तोंडी भास, रेडियोवयल्या भाशणांची भास, रेडियोवयल्या खबरांची भास, विज्ञानाची भास, भासाभाशेची भास, वर्णनांची भास, धार्मिक ग्रंथांची भास, खबरेपत्रांच्या खबरांची भास आनी कायदेशीर दस्तावेजांची भास.

आईव्ज हाणे भाशेच्यो तरा अश्यो सांगल्यात. (१)ग्रांथिक भास (२)उलोवपाची भास (३)औपचारिक भास (४)अनौपचारिक भास (५)प्रादेशीक भास (६)तांत्रिक भास (७)अशिक्षितांची भास (८)कुवाडयांची (सांकेतिक/गुप्त) (९)प्राचीन (पुर्विल्ली)* अशे णव प्रकार.

डर्बीशायर हाणें भाशेचे चार प्रकार सांगल्यात. ते म्हळयार (१)खाजगी भास (२)भौशिक भास (३)ललित साहित्याची भास आनी (४)गिन्यानाची भास अशे आसात. मनीस आपणाल्या घरच्यांकडेन आनी सोयऱ्यांकडेन वा इश्टांकडेन उलयताना जी भास वापरिता ती खाजगी भास. भाशेचे सगळे प्रयोग हेच भाशेचेर आदारिल्ले आसतात.

भौशिक भास ही खाजगी भाशेचेरुच आदारिल्ली आसता. सगळया सामाजीक वावरावळीखातीर हिचो उपेग जाता. शिक्षण, राजकारण, प्रशासन, वेपार, कला आर्दी क्षेत्रांनी हिचो वापर जाता. भौसाच्या जिवितांत हे भाशेक म्हत्वाचें स्थान आसता. थंयर्चीं तत्वां, सिघ्दान्त, संकल्पना, मतां, कल्पना, श्रघ्दा आर्दी उक्तावपाचें काम ही भास करता देखून ही भास प्रयोगाचे नदरेन खूव आंवाठीत आसता. ललित साहित्याची भास ही खाजगी भास आनी भौशिक भास एकामेकांत भरसून तयार जाता. ही भास व्यक्तिगत भावना आनी उत्कर्ल्याच्या आविश्करणाखातीर वापरतात.

गिन्यानाची भास ही भौशिक भाशेंतल्यान तयार जाता. हे भाशेमर्दी आनी भौशिक भाशेमर्दी तर्शें. व्हडलें वेगळेपण आसना. गिन्यानाचे भाशेंत तांत्रिक उतरावळ आसता. तिचो वापर अचूक व्याख्या करपाखातीर व विशिश्ट विशयांच्या उंचेल्या पावंडयावेल्या विद्वत्तायेन भरिल्ल्या भासाभाशेखातीर वेंचीक विशेशञूच करतात. गिन्यान – विज्ञानाच्या दर एका फांटयाची स्वताची स्वतंत्र भास आसता. त्या भांशेची वेगळी पारिभाशीक उतरावळ आनी वाक्यांच्या रचणुकेच्यो रिती आसतात. जायते फावट नव्या संकल्पनांच्या अभिव्यक्तींखातीर नवीं प्रतिकां सोदून काडून वापरचीं पडटात.

REFERENCES

- Anderson , J. A. (1973) Structural Aspects of Language Change, London Longman.
- Bloomfield, L.(1957) Language, London : George Allen and Unwin.
- Balinger, D. (1968) Aspects of Language, New York : Harcourt, Brace and World.
- De Soussure, F. (1960) Course in Linguistics, London : Peter Owen.
- Elgin , S. H. (1973) What is Linguistics, New Jersey : Prentice – Hall
- Hockett, C. F. (1958) A Course in Modern Linguistics, New York: MacMillan & Co.
- Jesperson, O.(1954) Language, London : George Allen and Unwin.
- Langaokar , R. W. (1968) Language and its structure New York : Harcourt, Brace and World.
- Martinet , Andre (1964)Elements of General Linguistics, London : Faber and Faber.
- Sapir, E. (1949) Language New York : Harcourt , Brace & Co.

IMPACT OF MINING ON THE WATER RESOURCES IN GOA.

SMITA NAIK FERNANDES

Nature has lavishly endowed Goa, not only with tantalizing scenic beauty, but also significant economic resources, consisting of rich mineral deposits of iron ore, in close proximity of our navigable rivers and excellent harbour.

Mining is the dominant industry of Goa; today iron ore constitutes the most important mineral resource and their mining plays a vital role in the economy and ecology of Goa. Goa exports nearly 15 millons tonnes of iron ore annually (accounting for nearly 35-40% of the total exports), thus forming the backbone of the Goan economy; manganese and bauxite are the other minerals exploited.

The exploration of these mineral resources is besieged with innumerable problems. The mining operations are mostly in the Ghats and forested areas. They have seriously undermined the integrity of the Goan watershed, polluted the rivers and disrupted the ground water aquifers and tables.

Discharge of mining pit water, waste water from the wet benefication plants, run-off from the reject dumps, barge movement and effluents from the workshop have created havoc with the Goan river systems. The ground water sources are also fast depleting.

Suggestions for better water resource management in the mining area have been mentioned at the end.

INTRODUCTION

Nature has lavishly endowed Goa, not only with tantalizing scenic beauty and enviable ecological assets, but also significant economic resources, consisting of rich mineral deposits of iron ore, in close proximity of our navigable rivers and an excellent harbour.

Mining is the dominant industry of Goa, today. Goa occupies a pivotal position

Mrs. Smita Naik Fernandes is Sr. Lecturer, Department of Geography, Rosary College, Navelim, Salcete, Goa.

with regard to the iron ore production and export from India. Goa exports nearly 15 million tonnes of iron ore (accounting for nearly 35-40% of the total exports), thus forming the backbone of the Goa economy. The other minerals available in Goa are manganese and bauxite.

The exploration of these minerals is causing grave concern to the environment, due to air, water, soil pollution and land degradation. The mining operations in Goa are mostly in the Ghats and forested areas. They have seriously undermined the integrity of the Goan watershed, polluted the rivers and disrupted the ground water tables and aquifers.

OBJECTIVES
To study the nature of the mining activity in Goa.
To study the negative impact of mining on the water resources-rivers, streams and ground water.
To suggest specific and general solutions.

STUDY AREA
The mining area of Goa is approximately 700sq.kms i.e a little less than 20% of Goa's land area. It is concentrated in four talukas, Bicholim, Satari, Sanguem and Quepem. Goa being on the watershed zone of the Western Ghats has a number of rivers, namely Mandovi , Zuari, Tiracol and Chapora. flowing westward into the Arabian Sea. Of these, Mandovi and Zuari and their tributaries namely Bicholim, Assonora, Madei, Arvalem, Velguern and Kalay flow through the mining areas. The important streams are Kudnem, Dhonkal, Sonshi and Advoi.

DATA
The present study is based on co-lateral/tertiary data. References are made from handbooks, statistical books and other available literature.

ANALYSIS

IMPACT ON WATER RESOURCES DUE TO MINING ACTIVITIES
a) The hydrological cycle that exists in Goa today, is culmination of the geological processes that started millions of years back. The hydrological regimen which nature has taken millions of years to evolve, has been disturbed in a couple of decades, due to mining.

IMPACT ON RIVERS
Mining affects the hydrological regime and water quality of the rivers. The factors contributing to pollution of water bodies are:

Discharge of the mine pit water.

Waste water from the benefication plants.

Rainwater run-off from the dumps.

Barge movements

Effluents from the workshop

MINE PIT WATER

The mine pits are classified into dry and wet pits. The dry pits are those where the mines are operating above the ground table and therefore remain dry throughout the year, except in monsoons. Wet pit mines are operating below the ground water table and therefore discharge water throughout the year. The pit water is red in colour and has high concentration of suspended and dissolved solids. The pit water is often pumped and discharged into the rivers, without any control, thereby polluting, the rivers.

BENEFICATION PLANT EFFLUENTS

The benefication process is basically a desliming process where the lighter sticky aluminous and silecious materials is removed and the ore is scrubbed and cleaned, heavier and coarser particles of ore are thus enriched. Many benefication plants are located on the banks of the Mandovi river and withdraw water from the river for consumption. The seepage/overflow of the tailing ponds is discharged back into the river. The high concentration of dissolved solids increases the electrical conducting of water and makes the river water unfit for irrigation.

The benefication plants don't operate during monsoons. Therefore, the impact of benefication plants on the rivers is only during the non-monsoon period.

RUN-OFF FROM MINE DUMPS

An important feature of the Goan mining industry is the high over burden to ore ratio, which requires a large volume of material to be handled and extensive areas for dumping. The ore to overburden ratio varies from 1:2to 1:3 and in some cases it goes as high as 1:8; Thus, over 850 million tones of laterite overburden waste dumps have already accumulated. In addition, every year about 30-35 millions tonnes of overburden is generated. There is acute problem of space for disposal of the overburden material. In some cases, the reject dumps extend right up to the river bank.

Intense rainfall to the order of 3000 - 4000mm in the mining belt, causes large run-off and vigorous streams flow. Soil erosion and run-off from mine dumps is discharged into the rivers and nallahs, resulting in heavy siltation in the beds in many stretches.

The dump run-offs also affects the river water quality, making it turbid. Annually 70,000 tonnes of run-off materials is deposited in the Mandovi river.

BARGE MOVEMENT

Mining activity is also responsible for pollution of river water by oil and grease, from the barges. Almost the entire iron ore production is transported by barges over the Mandovi and Zuari rivers to the Mormugao port. The concentration of oil and grease in inland water varies between 0.2 to9.2m/l with occasional higher values.

The propellers of the boats resuspend the bottom sediments and increases the water turbidity.

WORKSHOP EFFLUENTS

Major mines owners maintain their engineering workshops for maintenance and servicing of trucks and barges, along the banks of the rivers. These workshops generate effluents which have high concentration of oil and grease. Except Codli mine of Sesa Goa, the rest of the mining companies release their workshop effluents into the rivers, without treating. The quantity of grease released by a mine is estimated to be 250kgs/mine.

The requirement of washing the barges, each time an ore of a different grade is transported, has added to the pollution of the rivers.

Nitrates are among the other water pollutants released by mining activity. They originate from ammonium nitrate, which is used in explosives. Approximately 10 tonnes of ammonium nitrate are used per month. The worst affected rivers are Bicholim, Madei/Mandovi and Khandepar. The Bicholim river is polluted mainly from the run-off from the benefication plants and dumps at Bicholim mine. Madei river is polluted due to dumps at Pale village. Khandeapar is polluted due to washouts from the dumps at Codli-Kirlapal, Bimbol-Sirgao and Odamol -Tathodi group of mines.

DESTRUCTION OF GROUND WATER SOURCES

The short sighted approach to open-cast mining of iron ore in Goa, adversely affected the groundwater sources.

REDUCTION IN INFLITRATION CAPACITY.

In Goa, 350sq.kms of mining concessions and leases are within forest areas of Western Ghats. Deforestation was thereby, inevitable. Deforestation and stripping of top soil at the mining site has reduced the infiltration capacity of the soil. The effect is an increase in run off from the site, whereby the infiltration capacity is further reduced.

INCREASED RATE OF EVAPORATION

Deforestration has increased the evaporation from the soil. Combination of these 2 factors has resulted in a education in the quantum of water percolating the substrata, augmenting groundwater supplies.

DIMINISING WELL WATER SUPPLY

Removal of the lateritic cap of the hills, reduces the supply of water to the wells. Thus, either the water table in the wells is reduced or the wells go dry early.

Pumping out water from the pits, has resulted in depression of the water table. In northern Goa ore belt between Usgao and Honda, the ground water table has dropped from55m.a.m.s.l to 35 m.a.m.s.l.

DISAPPEARING SPRINGS

The perennial springs which were present at the foot of the mines are fast disappearing.

CONCLUSION/RECOMMENDATIONS

Afforestration of mining reject dumps should be undertaken vigorously.
In future, the dumping of rejects should not be allowed within a distance of 500mts of a natural stream.

Laterite walls of about 2mts thick and 3mts height at a distance of 100mts from the toe of the dumps should be constructed. The filtrated water from the laterite walls should be collected in a drain and should pass through a settling tank before discharge into the natural drains. The settling tank should have at least 3 hours holding capacity.

The locomotive maintenance depots should be equipped with waste oil collection systems and provisions should be made to recycle the oil.

The tailing water from the benefication plants should be completely recycled within the benefication plant, itself.

Research and Development projects should be initiated to make use of mining rejects.

Water from the abandoned mining pits should be studied in detail for utility.

REFERENCES

Alvares, Claude (1993). Fish, Curry & Rice, Panjim, Ecoforum.

Tata Energy Research Institute (1997) Areawide environmental quality management (AEQM) plan for the mining belt of Goa State. Final draft report submitted to Directorate of Planning & Statistics, Government of Goa, Panaji.

Afonso, Ave Cleto (1988) (Ed.). Workbook for Orientation programmes, Goa Research Institute for Development.

Kumar, Ashok (1996) Conservation of Mineral Resources and Environmental Problems in the Exploitation of Iron Ore and Manganese Ores of Goa, in Integrated Mining Exploration Programme in Goa : A Vision, Panjim, edited & published by Goa Mining Association.

A STUDY ON INTER-STATE MOVEMENT OF AGRICULTURE PRODUCES AND ASSOCIATED MARKETING PROBLEMS IN GOA

FILIPE R. E MELO , DR. B. C. NAIR, DR. M. R. PATIL , S. B. PATKAR

Agriculture is the largest primary sector and it is considered as the backbone of Indian economy. It provides source of livelihood for more than 70% of population in the country. Agriculture contributes significantly a large share to the national income of India. Agriculture in India plays a significant role in the country's international trade. India earns a sizable amount of foreign exchange though export of agricultural commodities.

Goa was liberated in 1961 and became a union territory comprising of Goa, Daman and Diu. Goa was elevated to the status of the 25th state in the Indian Union in 1987. It has two districts comprising of eleven Talukas. The geographical area of Goa is around 3702 sq. km. Goa is not in a position to meet the demands of the present population , as far as agricultural crops are concerned. These are imported into Goa from neighbouring states. The farming community needs to be motivated to enhance the size of agricultural produces.

Agriculture is one of the important economic activities of the people of Goa. Prior to liberation agriculture was almost neglected and no efforts were made to improve it. After liberation there was a tremendous change in agricultural sector. High yielding varieties, fertilizers, scientific method of cultivation, appropriate plant protection measures, irrigation, credit and marketing facilities were facilitated to increase agricultural production.

The agricultural crops that are currently grown include paddy, udid etc. The common fruit trees are cashew, mango, jackfruit , breadfruit, papaya, banana, pineapple, chikoos, guavas, and vegetables such as brinjal, lady finger, radish, cucumber, pumpkin etc. Sugarcane, sweet potatoes, onions, chillies etc. are also produced wherever irrigation facilities are available. Rice is the staple food of Goans and paddy is the principle agriculture crop in Goa.

Growth of marketing depends upon effective implementation of marketing strategies. Marketing of produces at better price and at the right time

Mr. Filipe R. E Melo is Sr. Lecturer, Department of Commerce, Rosary College Navelim, Goa.
Dr. B. C. Nair , Lecturer in Statistics, St. Xavier's College , Mapusa, Goa.
Dr. M. R. Patil, Sr. Lecturer in Commerce, DMS College of Arts & Commerce, Mapusa, Goa.
Mr. S. B. Patkar, Lecturer in Commerce, Saraswat Vidyalaya College of Commerce, Mapusa, Goa.

encourages the farmers to produce more. Even though the agriculture production after liberation is increased but still it is not enough to meet the demand of the present population. The present food grain production in the state is not adequate to meet the requirements of the local population as also the floating population. The demand of foodgrains exceeds the supply; thus the gap is filled through public distribution system specially rice, wheat and sugar. Fruits and vegetables production increased after liberation, but like foodgrains it falls short compared to the demand.

This demand is met through import from neighboring region specially, Belgaum in Karnataka. Tourism industry in Goa is flourishing at a faster pace. Lakhs of people visit Goa annually. The agricultural production could not meet the demand of this floating population. Goa has developed an extensive market which can accommodate a large quantity of agricultural commodities. Farmers in Goa find easy to market their agricultural produce due to a short distance between farm area and market. A large quantity of vegetables such as cabbage, cauliflower, carrot, chillies etc. are brought from Belgaum, Karnataka market daily by the middlemen and sold to vendors in local markets.

Significance Of Inter-State Movement Of Agricultural Produces
Agriculture continues to be the mainstay of the Indian economy and an effective antidote to poverty and unemployment. Recognising the importance of agriculture in the economic development of the country, adequate emphasis has been assigned in each successive five year plans. Agricultural development was slow for two decades but has kept pace with the growing demand for the products since mid sixtes.

The significance of agriculture in India arises from the fact that the development of agriculture is an essential condition for the development of the national economy. The marketing of agricultural products in general has not received as much attention as the introduction of new technology for the expansion of output and yield in our country. Marketing system of farm products has assumed a greater importance in recent years. For the farmer, disposal of his farm produces has become as important as the adoption of new technology for improving yields in agriculture. Better returns will induce the cultivators to produce more and market greater proportion of what they produce.

A predominantly agricultural economy like ours cannot march ahead on the rapid growth path unless arrangements are made for the movement of agriculture produce from one state to another. If the agriculturists do not see any easily accessible market outlet where they can sell their produce at a fairly reasonable price they will have little incentive to regard agriculture as a gainful occupation.

There is an urgent need to press into service all the major components of modern marketing in the field of agricultural marketing. Full proof system of grading, standardisation and warehousing, trustworthy banding, an

attractive packaging and an efficient mode of transportation are some of the factors which are important particularly when the product in question is destined to move for the markets within our country.

NEED FOR THE STUDY

Agriculture is world's important and the oldest sector, which provides food, employment, raw material to industries, source of livelihood and foreign exchange. After independence, India has become self sufficient in agriculture. The government gives utmost priorities for increasing agricultural production and marketing the produces. Inter-state movement of agricultural produce gives scope to farmers for marketing their produce in other territories. It develops good relation between the two states. The production of agricultural being limited Goa has to depend on neighboring states for fruits, vegetables and foodgrains. The traders and middlemen bring a large quantity of vegetables, fruits and foodgrains from other states. An effective distribution of agriculture produce is an important job of market functionaries. There are many obstacles in effective distribution of agricultural produces, thus it is felt essential to study the trend of inter-state movement of agricultural produces and associated marketing problems in the state.

OBJECTIVES OF THE STUDY

The broad objectives of the study are as follows :

1] To examine the pattern of imports of various agricultural produces to Goa market from the neighbouring states.

2] To study the annual growth of the imports of various notified agricultural produces into Goa regulated market.

3] to analyse the various marketing channels through which agricultural produces are brought into Goa market and associated marketing problems.

4] to suggest suitable measures for the improvement of agricultural production in Goa.

DATA AND METHODOLOGY

The present study is based on both primary and secondary data. The necessary secondary data are collected from the yearly published annual reports of Goa Agricultural Produce Market Committee, Margao, Goa, for the period from 1995 to 2000. A physical survey of Mapusa market which is a major market for agriculture produce in Goa was carried out to examine the inter-state movement of agricultural commodities, as well as associated marketing problems in Goa.

Trend analysis technique has been employed to find out the yearly growth (Increase/Decrease) of various commodities brought into Goa. The physical survey has been carried out though a questionnaire data collection tool specially designed for the purpose. A random sample of 25 vegetables vendor respondents and 25 fruit vendor respondents has been selected for soliciting their opinions with regards to inter-state movement of vegetables and fruits as well as marketing problems.

ANALYSIS AND DISCUSSION

Analysis of Import of agriculture commodities into Goa from the neighbouring states.

Table –1

Import of agriculture commodities into Goa from other states from 1995-96 to 1999-2000

Quantity in tons.

Sr. No.	Commodities	1995-96	1996-97	1997-98	1998-99	1999-2000
1.	Bananas	7728.47	5967.10 (-22.8)	7798.64 (30.7)	11227.64 (44.0)	8474.10 (-24.5)
2.	Papayas	1.42	0.62 (-56.33)	2.15 (246.77)	2.93 (36.27)	1.61 (-45.05)
3.	Chikoos	33.50	48.21 (43.9)	33.39 (-30.74)	125.08 (274.6)	15.47 (-87.6)
4.	Oranges	2663.48	731.31 (-72.54)	1115.72 (52.56)	1242.69 (11.38)	365.22 (-70.61)
5.	Grapes	286.82	740.05 (158.0)	846.15 (14.33)	975.71 (14.31)	503.86 (-48.35)
6.	Onions	3683.00	4521.69 (22.77)	5061.75 (11.94)	4502.40 (-11.5)	4294.85 (-4.6)
7.	Potatoes	2469.00	3539.33 (43.35)	3638.01 (2.78)	3661.08 (0.06)	3340.71 (-8.75)
8.	Chillies	16	28.56 (78.5)	65.03 (127.6)	53.74 (-17.36)	70.26 (30.74)

SOURCE : Annual reports of Goa Agriculture Produce Market Committee from 1995-96 to 1999-2000.

NOTE : Figures in brackets represent percentage increase/ decrease over the previous year.

Table 1 reveals the notified agriculture commodities in regulated market. It was observed from the table that growth of bananas shows fluctuating growth. In the year 1996-97, and 99-2000, there was negative growth by 22.8% and 24.5% as compared to 95-96, 97-98 and 98-99 showed positive growth. This fluctuating growth is due to irregular supply and demand of bananas in the market. Besides this, bananas are also produced in Goa, but it is not traded in regulated market. Papaya, and Chikoos show positive growth for 96-97, 97-98, and 98-99. Oranges and Grapes are brought from Maharastra. Grapes show positive growth from 95-96 to 98-99 and oranges show positive growth in the year 1997-98 and 98-99. Fruits which are sold in outside market are not recorded, thus the demand of fruits exceeds the figures in the tables. Onion showed positive growth upto 1997-98 and later on negative. Similarly potatoes also show positive growth upto 98-99 and a negative growth in the year 99-2000. Onions and potatoes are high utility agricultural commodities having demand throughout the year. The growth of these

commodities are increasing due to an increase in consumption both commercial and domestic.

ANALYSIS OF MARKETING CHANNELS AND ASSOCIATED MARKETING PROBLEMS

Marketing channels and associated marketing problems

The success of agriculture depends upon effective marketing systems. Marketing of agricultural produces is made through marketing functionaries. The marketing channels in inter-state movement of agricultural commodities are :

Middleman – Vendor – Consumer

Trader – Consumer

Market functionaries are faced with certain problems in effective marketing. There is a lack of transport facilities for transporting the produces from the neighbouring states. The only mode of transport for agriculture produces is through trucks/tempos which arrive at different timings in all major markets in Goa. Goa also lacks storage facilities for the perishable commodities. Most of the vegetable and fruit produces are brought on the previous day and they get exhausted in 2 to 3 days, as storage facilities are lacking and many times a large quantity of unsold stock gets spoiled. As a result, vendors are forced to raise the price which affects the turnover. There is no shed for the vegetable and fruit vendors. All the markets in Goa have a weekly Bazar day. Many vendors from neighbouring states come to Goa on the previous night and dispose of all goods on the next day. There are also no sanitary facilities for the vendors in most of the markets in Goa. Banks do not provide financial assistance for the vegetable and fruit vendors, as no books of accounts are maintained and they are not permanent traders or vendors of that particular place. In the absence of financial assistance from Banks they are forced to depend on money lenders who exploit them by changing a higher rate of interest.

CONCLUSIONS AND SUGGESTIONS

The study reveals the following conclusions:

1] It was observed from the study that the agricultural produce imported into Goa from neighbouring states includes cabbages, carrots, tomatoes, chillies and other vegetable as well as oranges, bananas grapes, apples, watermelons etc.

2] It has been observed that import of various commodities in regulated market shows a mixed trend; some years there was considerable increase and some years, decrease. This could be due to irregular pattern of demand and supply.

3] A large portion of agricultural produces are brought form neighbouring states i.e. Karnataka and Maharastra and they are not accountable.

4] It was observed that vendors are faced with the problems of transporting the goods, commonshed, storage facility and financial assistance.

5] It was observed that prices of agricultural commodities fluctuate in the market. This is due to lack of storage facility; rotton items are thrown out and loss is recovered from other produces by increasing the prices.

SUGGESTIONS

The following suggestion are recommended:

1] The farming community in the state needs to be motivated to enhance the size of agricultural produces with financial support, improved variety of seeds, fertilizers, pesticides and more importantly remunerative prices for agricultural produces.

2] The vendors needs to be provided with necessary infra-structure so as to improve the efficiency of marketing systems.

REFERENCE

- Khan, N. (1991), Agricultural Development and Marketing, H. K. Publishers and Distributors.

- Gomes, Olivinho J. F. (1987), Village Goa, New Delhi, S. Chand & Company (Pvt.) Ltd.

- Angle, Prabhakar S. (1983), Goa : An economic review, Bombay, The Goa Hindu Association Kala Vibhag.

- Prasad, R. (1996), Role of state in agricultural marketing : an overview, The Bihar Journal of Agricultural Marketing, vol IV, No. 4, Oct.-Dec. PP. 335.

- Census of India, (1991), Directorate of Census Operations Goa.

- Annual Reports of Goa Agricultural Produce Market Committee, Margao, 1995-96 to 1999-2000

* Courtesy : *Indian Journal of Agriculture Marketing*

TRADE UNIONISM IN GOA
A CASE STUDY OF
ZUARI INDUSTRIES LTD AND GOA SHIPYARD LTD

ANJANA RAJU AND JIM BARRETO

This paper is divided into three sections. Section one gives brief information on Goa and its industrialization since its liberation and outlines the state of Trade Unionism in Goa in recent years. Section two deals with trade unionism in Zuari Industries Ltd and in Goa Shipyard Ltd and how these companies are facing two different problems i.e. inter union and intra union rivalry. It also covers the challenges faced by unions of both the companies. In section three conclusions are drawn.

On May 30, 1987, Goa became the 25th full-fledged state of the Indian Union. The state has a 40 member assembly with full legislative powers. The state is divided into two districts. North Goa and South Goa, with headquarters at Panjim and Margao respectively. There are eleven talukas, six in the northern district and five in the southern. Pernem, Bicholim, Satari, Bardez, Tiswadi and Ponda form North Goa, while Mormugoa, Salcete, Sanguem, Quepem and Canacona talukas comprise South Goa. Three hundred and seventy four villages are divided into 183 village panchayats which in turn are divided into ten development blocks.

Three and half decades after liberation, Goa has reason to be pleased, if not entirely satisfied, with the progress of industrialization. There are now about 116 large and medium scale manufacturing plants, 250 joint stock small scale industries (SSI) units and about 4500 other small scale factories. There are also about 1200 joint stock companies engaged mainly in commercial activities.

Although statistics reveal a giant leap forward by industry over the last 37 years since liberation, there is a virtual absence of any policy to ensure that a proper direction is given to the industrialization taking place in Goa. In fact, industry is reeling under the problems of uninterrupted power and inadequate water supply. Further, besides the usual difficulties created by bureaucratic red tape in sanctioning industrial projects, other interests and considerations also stand in the way.

Ms. *Anjana Raju,* is a Sr. Lecturer in Commerce, Goa University
Mr. *Jim Barreto,* is a Lecturer in Commerce, Rosary College Navelim, Goa

Nevertheless, in the last seven years the share of industry in the net state domestic product has gone up by about 27 per cent and more and more industries are coming to Goa due the Government's advertising campaign

TRADE UNIONISM IN GOA
The trade union Act 1926 was extended to the union territory of Goa, Daman and Diu on 19th December 1962.

The first three unions to be registered in Goa were the Goa Government Employees Union (22-3-1963), the Marmagoa Waterfront Workers Union (14-5-1963 and the National Mine Workers Union (23-7-1963).

A total of 367 trade unions were registered in Goa between 1963 and 1998. However the registration of 129 was cancelled for the following reasons: non submission of returns, the registrar was not informed about a change in the name of union and in its address; and finally, because the union went on strike without giving advance notice. Therefore, there are now 238 registered trade unions functioning in Goa. Between 1981 and 1989 the maximum number of trade unions was registered, namely 101, followed by 1972- 1980, 99.

TABLE 1
Trade Unions Registered and Cancelled in Goa Between 1963 and 1998

Year	Number of Trade Unions Registered	No. of Registrations Cancelled
1963-1971	80	29
1972-1980	99	55
1981-1989	101	41
1990-1998	87	4
Total	367	129

Source : Labour Commissioner, Junta House, Panaji
Industrial Relations scene in Goa between 1988 and 1997.

TABLE 2
No. of strikes, lockouts and mandays lost in the last 10 (calendar) years in Goa

No.	Year	No. of Work Stoppages due to			No. of workers involved			No. of mandays lost		
		Strikes	Lockouts	Total	Strikes	Lockouts	Total	Strikes	Lockouts	Total
1	1988	11	-	11	3,265	-	3,265	14,179	-	14,179
2	1989	11	3	14	4,658	1,297	2,954	25,634	15,960	41,594
3	1990	8	2	10	2,978	200	3,178	10,845	2,600	13,445
4	1991	20	1	21	3,348	45	3,393	14,776	540	15,316
5	1992	16	3	19	1,955	285	2,240	58,478	6,615	65,093
6	1993	5	2	7	268	150	418	2,032	5,190	7,222
7	1994	3	1	4	888	580	1,468	29,430	1,22,960	1,52,390
8	1995	11	1	12	926	125	1,051	22,158	2,875	25,033
9	1996	7	-	7	2,956	-	2,956	46,941	-	46,941
10	1997	8	-	8	1,096	-	1,096	23,540	-	23,540

Total number of strikes and lockouts from 1988 to 1997 = 113.
Source: Labour Commissioner, Junta House, Panaji

The industrial relations scene in Goa is not a bright one. There were 113 strikes and lockouts in the period 1988 to 1997. 1991 saw the highest number of strikes and lockouts, 21 followed by 19 strikes and lockouts in 1992.

In 1989, the largest number of workers were involved in strikes and lockouts viz., 5954 while in 1991, 3393 workers were involved in industrial disputes.

in 1994 a maximum number of mandays was lost as a result of strikes and lock outs viz.1,52,390 man hours while in 1992, 65,093 man hours were lost.

TABLE 3
No. of disputes registered and settled in Goa

Year	Disputes registered	Disputes settled
1993	252	153
1994	241	149
1995	220	108
1996	357	106

Source: The Navhind Times, Jan. 1998

The trend shown in the above table points to a vulnerable industrial relations system, which discourages industrial growth because entrepreneurs tend to open units in regions favourable, to them, despite the carrots dangled before them elsewhere. Poor industrial relations also contribute to industrial sickness in one form or another.

TRADE UNIONISM IN ZUARI INDUSTRIES LTD

Zuari Industries Ltd, formely called Zuari Agro Chemicals is a leading producer of fertilizer in India. Zuari industries operates in a spacious and well laid out plant at Zuari nagar. The basic raw material used in the manufacture of fertilizer by the company is naptha, although the recent trend is to use natural gas.

There are three trade unions in Zuari Industries Limited. They are Zuari Agro Chemicals Employees' union, Zuari Agro Chemical Workers' Union and Zuari Agro Chemical Officers' Association.

Zuari Agro Chemicals Employees' Union was formed in 1972 and registered in the same year under registration number 81. When the union was first started, its membership was 300 employees, but now this has gone up to 500 members. Zuari Agro Chemicals Employees' Union is now basically the union of the factory workers, whereas previously all employees whether white collar or blue collar were members of this union. The structure of the union consists of one President, One General Secretary, One Vice President, One Treasurer, Two Joint Secretaries and four Executive Committee Members. An annual subscription fee of Rs. 25 per member is collected which is used as required.

Reasons for going on strike

The employees union went on a ten day strike in 1978 to fulfill the three following demands: a better wage package; a fair promotion scheme (right now the workers are not promoted at all and have to retire in the same position); a 40 hour work week. The administrative staff were then enjoying the facility of working only for 40 hours per week.

Due to the violent actions of some employees, the company resorted to lockouts in May 1979 and July 1979.

Till 1980 there was only one union in Zuari Agro Chemicals. Then in August 1980 Zuari Agro Chemicals Employees' Union declared a strike for settlement of wages and to secure a 40 hour work week. Then in January 1981 some employees of Zuari Agro Chemicals Ltd Employees' Union broke away and formed the Zuari Agro Chemicals Workers Union. Eleven members were from the factory and the rest belonged to the administrative staff or were regional workers.

Till 1990, with good understanding between both unions, settlements used to be signed jointly. Then in 1991, goodwill between the two unions broke down because the Workers' Union started demanding the allowances .that were given to factory workers, such as factory allowance, towel and soap allowance, and so forth. The employees union was against giving these allowances to the administrative staff. However, the management decided that this demand would go to an arbitrator and Justice Malwankar was appointed arbitrator. The issues placed before the arbitrator were :

a)   whether the same factory allowance should be paid to both parties;

b)   whether the same towel and soap allowance should be paid to both parties; and whether the same washing allowance should be given to all. It should be noted that till 1990 uniforms were supplied only to factory workers but in 1991 the company introduced uniforms for administrative staff as well. However, there was a disparity of Rs. 40/- between administrative and factory employees as far as washing allowance was concerned.

c)   The last issue submitted for arbitration was the question of the special production incentive. In 1991, the management had introduced a special production incentive for employees directly involved in production.

The arbitrator. Justice Malwankar came to the conclusion that only washing allowance should be equal for both parties and no other allowance should be given to the members of the Zuari Agro Chemicals Workers Union. For two years, the above three allowances were frozen because of the arbitration proceedings, but the management decided in principle to increase the allowance payable to the members of the Zuari Agro Chemical Employees Union once the arbitration proceedings were over.

Achievements of the Zuari Agro Chemicals Employees Union

1. The Union bought for a 40 hour week, while previously workers had to work for 44 hours per week.- The union considers this to be a major achievement, since in no other fertilizer plant is this facility given.
2. The union was able to secure better pay scales than those prevailing in other similar fertilizer plants.
3. The union was able to secure greater benefits like housing loans of up toRs.3 lakhs per employee for all categories of employees.
4. Through the union's efforts, the company was able to start their own pension scheme which is now trying to supercede the government scheme.

Problems faced by the Employees Union

1. There is no law governing the recognition of unions, so that any number of unions can mushroom in an industry, without recognition and in fact the management of Zuari encourages multiple unions.
2. Employees have crossed the age of 40 and receive no promotion. They are forced to retire in the same position.
3. In future there can be retrenchment of the employees because of the liberalization programme introduced by the government. The government may also withdraw the subsidy which the fertilizer industry is now enjoying. This is the major problem the union may face in future.
4. Management tries to suppress union activities, by playing one union off against the other.
5. Zuari Industries Ltd has not gone in for any expansion. The management is siphoning funds off, to other states.
6. Politicians keep interfering. For example, the Employees' Union had demanded majority status, but due to the interference of certain politicians, it was not granted, though the Union enjoys the support of a majority of the employees. In 1994 a wage settlement was arrived at, but the management refused to sign on the insistence of the Labour Minister. The settlement was signed only after the Chief Minister intervened. Moreover, the internal leaders of the union do not have influence over the government machinery for settling disputes.

Future Challenges faced by the Employees' Union

Some of these are given below.

1. the Liberalization policy of the government;
2. uncertainty in the political situation;
3. the Company does not take a long-term view of the problems likely to arise because of removal of the subsidy;
4. government imports fertilizer, so that the company does not produce enough fertilizer, though it has the capacity to do so;
5. because of changing technology, the menpower requirements will be less; also new skills will have to be developed to meet the needs of the changing technology;
6. the cost of production may increase in future; right now the company is using naptha as the raw material which is costly and has to be bought at open market rates; there are cheaper gas based plants coming up which may threaten the very existence of the company;

7. because of liberalization, the company may become a trading concern (focusing on distribution only) and may be forced to stop production.

The Zuari Agro Chemicals Employees Union is planning to set up a trust called Zuari Industries Ltd Employees Trust. The trust will have a social objective, that is to provide education for the workers. The union would like managers and officers to become trustees but the majority of the trustees will be union members. A corpus of about three lakhs, has already been collected to start this trust. Membership will not be restricted only to Zuari employees, but members from other industries will also be welcome.

TRADE UNIONISM IN GOA SHIPYARD LTD.

Goa Shipyard Ltd (GSL), established in 1957, is today a leading shipyard east of the Suez. It meets the exacting requirements of varied customers in the design, development, construction, repair, modernization, testing and commissioning of ships.

In Goa Shipyard Ltd there is only one trade union called the Shipyard Employees Union. This union was formed on December 5, 1977 and registered in the same year with 143 as its registration number. When the Shipyard Employees Union was first formed, its members numbered 1000, but now the membership has almost doubled to 1950. It was affiliated to the central trade union called Hind Mazdoor Sabha (HMS) in 1978 but was disaffiliated in 1988. A subscription of Rs. 15/- per year per member is collected which is used for conducting meetings, elections and so forth. The union has one President, three Vice-presidents, one General Secretary, two Secretaries and one Treasurer and there are 32 managing committee members.

Objectives of the Union
They are to
1. Organize and unite persons employed in a number of shipyards situated at different places in Goa and to regulate their relations with their employers;
2. secure to the members fair conditions of life and service;
3. try to prevent any reduction of wages and if possible to obtain an increase whenever circumstances allow;
4. try to redress employees grievances;
5. endeavour to settle disputes between employers and employees amicably, so that cessation of work may be avoided;
6. endeavour to secure compensation for members under the Workmen's Compensation Act in case of accidents;
7. endeavour to provide against sickness, unemployment, infirmity, old age and death;
8. secure a share in the profits for the workers and greater participation in management.

Achievements of the Union

The workmen are now better organized and more secure than before. They enjoy better wages. Victimization of workers has decreased and workmen now have to work fewer hours than before.

The union does not have a clear structure at present, but in the forthcoming general body electing they propose to revamp the constitution so as to include this. There is no direct involvement of politicians in the union's activities, but there is certainly indirect interference and the union has so far avoided close contacts with politicians.

The managements do not consult the union before taking policy decisions; but in case any decisions adversely affect the workmen's interest, the union raises objections and the problems are sorted out.

Activities conducted by the union

Besides the internal activities mentioned above, the union also conducts certain other activities. These are:

a) improving the welfare of the members;
b) providing legal aid to them;
c) starting co-operative societies so that one consumer society, one credit society and a few housing societies exist today;
d) inviting outside experts and institutions to conduct courses like counselling, vocational education, and medical courses.

Problems and challenges faced by the union

The union is facing the problem of intra-union rivalry, encouraged by the management. In fact the management of GSL is supporting the rival group to keep the main union under check.

The principal future challenges are to secure a five days work week and above all to ensure job security for all.

CONCLUSIONS

1. There has been a mushroom growth of trade unions in Goa. This is primarily due to the giant leap forward in industrialization since the liberation of the territory and the absence of any law concerning the recognition of unions. This is a serious impediment to healthy trade unionism in Goa, because unions can be made scapegoats, despite having the support of a majority of the workers.
2. There is a trend towards easy cancellation of the registration of unions. This may be due to a frivolous attitude on the part of the union leaders in registering a union and adhering to the Trade Unions Act.
3. The industrial relations scene is not a pleasant one in Goa. The territory has experienced 113 strikes and lockouts within a span of nine years. What's more, industrial disputes in Goa show an increasing trend. Thus in 1996, 357 disputes were registered with the labour commissioner of which only 106 were settled. Government machinery is clearly slow and inadequate in settling industrial disputes.

4. In Zuari Industries Ltd the management encourages multiple unions so that it can play one union off against the other. Politicians are also interfering in the affairs of the unions which makes matters worse for the unions. The Liberalization policy of the government seems to be the greatest challenge faced by unions in Zuari Industries Ltd.
In Goa Shipyard Ltd too, the problem of intra-union rivalry is present, encouraged by the management. To keep the main union a bay and to avoid conceding its demands management plays the minority rival group against the majority group.
Despite all these problems, the Unions would do well to continue their work and to seek for greater mutual cooperation and understanding.

REFERENCES

- Alvares, Claude. (1993). "Fish, Curry and Rice", Panjim, Eco Forum.

- De Souza, Gerald A. (1998). "Surveying the Industrial Scene": Goa Today, September.

- Maske, Pradip. (1998). "Labour Movements in Goa", The Navhind Times, January.

- Naik, Varman R. (1998). "Calling Industries!", Goa Today, December.

DEPOSITORIES – A CASE STUDY OF GLOBAL TRUST BANK LIMITED WITH REFERENCE TO GOA.

HELIC MARIO BARRETTO

This paper is divided into 3 sections :
Section I deals with the Introduction, Meaning of Depository, Functions of Depository, Advantages and Disadvantages of Depository.
Section II deals with the Case Study of Global Trust Bank Ltd. with reference to Goa.
Section III deals with the conclusion of the study.

INTRODUCTION

The Indian Capital Market has made a lot of progress especially in the last decade as can be seen from the increasing investor population. However, this rise has also brought in a series of problems, which sometimes threaten the very survival of our capital market. A closer look at the problems reveal that most of them arise due to the intrinsic nature of paper based trading and its settlement.

Each year the number of companies listed at the various stock exchanges in our country goes on increasing. But, the basic infrastructure required to handle the growing volume of paper remains almost the same. This causes numerous problems for the investors trading in physical shares :
i) Delay in transfer of shares : sometimes it takes even three months for the investors to get the shares lodged in their name.
ii) Existence of fake share certificates in the market.
iii) Mutilation of share certificates in transit.
iv) Possibility of forgery on various documents leading to bad deliveries.
v) Loss of share certificates in transit.
vi) Longer settlement periods and
vii) Theft of shares and subsequent litigation.

The retail as well as institutional investors are very cautions of entering the Indian capital market due to the above problems. In this scenario, a need was felt about something which will help the investors to overcome the above problems. Hence, the term "Depository" came into existence so as to improve the efficiency of the Indian capital market.

Mr. Helic M. Barretto is Sr. Lecturer, Department of Commerce & Accounts, Rosary College, Navelim, Goa.

Depositories Act 1996:

The government of India introduced the ordinance for depositories as part of capital market reforms in September, 1995. The system envisages a three tier structure under which transfer of securities and the scripts shall be stored with authorized depositories for safe keeping.

Investors can opt to have share certificates in physical form or join the depository mode. An investor has to register himself with one or more depository participants who act as custodial agencies. Exit from the depository and pledges shall be allowed to the investors.

It is mandatory for a depository participant to obtain registration from the Securities and Exchange Board of India (SEBI) within the rules. The act has also made amendment for exemption of stamp duty for share transactions but not debentures through depository and amendments in companies and Benami Transaction (Prohibition) Act.

The salient features for the Depositories Act, 1996 are :
i)   Investors will get all the benefits and shall enjoy voting rights even though the shares will be registered in the name of the depository.
ii)   Transfers would be effected automatically.
iii) Depository will indemnify the participant for any loss or damage.
iv)   No need to pay stamp duty for equity shares.
v)   There will be one or more depositories.
vi)   Investors will have a choice of using the depositories or having physical share certificates.
vii) Depositories shall be introduced in phases.

Evolution of Depository :
The Depository Act was enacted in the year 1996 to provide for the regulation of depositories in securities and other matters connected with it.

National Securities Depository Ltd. (NSDL) was the first depository in India formed on the 8th of November, 1996. However, the actual trading in dematerialized securities started first at the National Stock Exchange (NSE) from 26th December, 1996, for a few scrips.

Central Depository Services (India) Ltd. (CDSL) is the second depository in India formed on the 8th of February,1999. CDSL commenced operations at the Bombay Stock Exchange (BSE) from 22nd March, 1999. However, CDSL was formally inaugurated on the 15th of July, 1999, by our honourable finance, minister Shri. Yeshwant Sinha.

Both NSDL and CDSL established closer connections with each other regarding inter-depository transfer of securities.

What is a Depository ?

A Depository can be conceived of as a bank for securities. In the depository system, physical securities are converted into electronic book entries. Just as one can open an account in a bank, deposit or withdraw money, instruct the bank to pay somebody on his behalf etc., similarly in the depository system also, one can open a securities account, withdraw his securities and instruct the depository participant to deliver or receive securities on his behalf.

Depository can be defined " as an agency (Individual / Corporate / Bank / Trust) to whom securities are deposited for safe keeping and handling on behalf of the owner or the depositor". Depository in simple words means – a place where something is deposited for safekeeping by others as per the terms and conditions of a specific depository agreement.

Functions of Depository :

The functions of depository are :

1) **Corporate action** : The depository will track the benefits due to the clients and will do the job of timely collection of benefits like rights issues, bonus issues, dividends, redemptions and warrants.

2) **Book entry settlement** : Depository will accomplish settlement work via computerized accounting system. The book entry will ensure elimination of the physical packaging and movement of share certificates while settling a transaction.

3) **Safekeeping** : It involves the storage of securities in a secure location.

4) **Pledging** : Depository will allow securities to be used as collaterial to secure loans and other form of credit.

5) **Transfer and registration** : The dematerialized system eliminates the physical movement of securities as it reduces the transfer process to a book – entry activity.

6) **Funds handling** : it involves handling of funds such as collecting funds from issuing companies like dividends, interest or distribution of funds to participants connected with the settlement of securities transactions.

Advantages of Depository :

Depository offers several benefits to the investors which are given below :

1) An investor who wants to participate in a depository has to open a securities account.
2) Conversion of physical shares into electronic entries.
3) Holding securities in their custody in electronic form.
4) It provides to their clients a statement of account every fortnight or every month.
5) Transfer of securities is possible.
6) Rematerialisation of securities.
7) Initial Public Offer (IPO) allotment.
8) Lower brokerage cost.
9) No stamp duty for equity shares
10) Pledge.

Disadvantages of Depository :

1) Depositories is an infrastructure service with a very long pay-back period.

2) Depository system will have the presence of both dematerialized and physical securities in the same market.

3) Depository system is not very much helpful for the speculators as they can't keep the shares as a open document.

Case study of Global Trust Bank Ltd. with reference to Goa.

In this tiny state of Goa, presently there are about ten Depository participants namely : GTB Ltd., HDFC Bank, Integrated Enterprises, UTI Bank, Stock Holding Corporation of India Ltd., Infrastructure Leasing & Financial Services Ltd. and UTI securities. Among all the Depository Participants (DP's) in Goa, Global Trust Bank Ltd. occupies the first rank in terms of clients base and profitability. The profits of GTB Ltd. for the last two years were around Rs. 72 crores in 1998-99, and around Rs. 109 crores in 1999-00. However, their profits for the year 2000-01, were only about Rs.80.33 crores, a little lower due to a high exposure in the share market and other related activities.

GTB Ltd. came into existence on 30th October, 1994, as a private sector bank under the leadership of its former chairman Mr. Ramesh Gelli. It was appointed as a depository participant during the year 1997. The main objective of GTB Ltd. here is to offer the best DP services to its clients. Presently it has five branches in Goa and nearly 2500 clients operate through this DP from Goa. It handles equity shares of all the companies listed under NSDL. GTB Ltd. is also a member of CDSL. It attracts clients through newspaper advertisement and by word of mouth.

An investor who want, to open a demat account in GTB Ltd. has to visit any one of their branches in Goa as per his convenience and sign with them a standard agreement. The agreement contains rules, regulations, rights and duties for the investor and also for the bank. The investors are not restricted to open demat account with only one DP but they can open any number of demat accounts and with any number of DP's. Once the account is opened, the investor is given a client ID number. Usually, it takes about five working days to get the client ID number in GTB Ltd.

Demat account is similar to a bank account but the major differences between the two are: A demat account can be opened even with zero balance and the investor is not required to maintain a minimum balance in his demat account.

PROCEDURE FOR OPENING A DEMAT ACCOUNT IN GTB LTD.

For Individual Residents and NRI's

i) Application form for Individual residents and NRI's alongwith photographs.

ii) Agreement alongwith schedule A signed on all the pages, to be executed in presence of GTB official and is to be stamped as per the "State Stamp Act".

iii) Standing instruction for debiting charges to current or saving account.

iv) Proof of identity to be verified with original and certified (to prove the identity of an individual one can get his voter's ID or ration card or even driving licence).

v) Savings bank account opening form, if one does'nt have such an account with them.

vi) PAN or GIR number to be filled in the account opening form.

vii) In case of Power of Attorney, the General Power of Attorney , special Power of Attorney to be submitted duly notarized on stamp paper.

viii) In case of a minor – date of birth,

ix) In case of HUF – joint family letter.

x) In case of NRI holdings, a copy of RBI permission is required in addition to the above documents.

For Corporates :

i) Application form for corporate account opening alongwith photographs of the person operating the account.

ii) Agreement alongwith schedule A signed on all the pages, to be executed in presence of GTB official and to be stamped as per the "State Stamp Act".

iii) Standing instruction for debiting charges to current or savings account.

iv) Certified copy of AOA or MOA.

v) Certified copy of Board Resolution in prescribed format.

vi) Current account opening form, if they don't have any such account with them.

vii) As and when the authorized signatories of the corporate change, a fresh board resolution needs to be submitted to the DP along with photograph and specimen signature card.

For Clearing Member (CM) Account opening :

i) Application form for corporate account opening alongwith a photograph of the clearing member.

ii) Agreement alongwith schedule A signed on all the pages, to be executed in presence of GTB official and to be stamped as per the "State Stamp Act".

iii) Standing instruction for debiting charges to current account.

iv) Current account opening form, if such an account is not yet opened with them.

v) Clearing member ID received from clearing corporation.

GTB Ltd. maintains all the demat accounts of its clients from Goa at its Panjim branch and its other branches in Goa are only doing postman's job as far as this service is concerned. A demat account holder does not receive a pass – book from the bank, but he receives a cost free statement of his holding every fortnight, irrespective of the number of transactions. A demat account can be easily closed by the investors as and when they want and the DP does not charge any fees to close the account.

Who opens a Demat Account ?

A Demat Account is usually opened by an individual or individuals or a corporate organization, who are holding shares in physical form and want to convert this physical holding into electronic entries due to the limitations of physical holding. Also, shares of almost all the companies now trade only in demat form and if one wants to buy or sell these shares then one has to open a demat account. However, each and every investor does not always open a demat account while buying or selling shares because one can buy shares of a company which compulsorily trade under demat and credit them to his broker account, of course with his permission, and after sometime he can request his broker to sell them for him.

An investor can dematerialize only those shares certificates which are already registered in his name and belong to the list of securities admitted for dematerialization at the NSDL. In GTB Ltd. the investor has the choice to dematerialize a part of his securities in one company and keep the remaining part in physical form. But, by doing this, the investor will have to pay the dematerialization charges twice, which is a loss to him.

During dematerialization no transfer deed is required to be signed by the seller. Dematerialized shares do not have any distinctive certificate numbers and also there is no marketable lot for demat shares. This means, an investor can buy or sell demat shares in multiples of one share. In GTB Ltd. the entire process of dematerialization takes about three to six weeks to complete. This bank also undertakes dematerialization of odd lot shares.

Selling demat shares :

An investor who want to sell demat shares has to first place his sell order with his broker on any trading day or working day. Once the sell order is executed, the investor has to fill up a form called as "Delivery Instruction by Clients" and submit it to his DP (GTB Ltd.). The delivery instruction by clients form contains the following six instructions :

i) ISIN to be filled by the customer or investor compulsorily.

ii) All instructions to be given 48 hours before the NSDL deadline.

iii) Only market or off-market column is to be filled up.

iv) All the columns are to be filled completely.

v) In case of joint holdings, all holders must sign, and

vi) Execution date should be greater than the date of instruction.

The investor doesn't pay any commission to the DP while selling shares. However, the DP will debit their client account with transfer fees which comes to about 0.04% of the value of the securities sold for individuals or joint account holders and 0.02% for clearing member.

CONCLUSION

The depository system is of a recent origin in India and it is developing at a rapid pace. Among the two depositories that we have in India, NSDL is very popular among the investors. The number of clients accounts with NSDL has gone up to more than 5 million by the end of March, 2001. NSDL works at the retail individual investors level and CDSL works at the brokers, and depository participants level. GTB Ltd. as a depository participant is very popular among the investors because the fees charged by this DP for dematerialization of shares works out to be very less in the long run as compared to other DP's. The clients of GTB Ltd. have the facility of on-line demat operations where the clients can any time access to their accounts to know the balance shares in their accounts, as on that date.

REFERENCES

- Desai Vasant, The Indian Financial System, New Delhi, Himalayas Publishers House.

- National Securities Depository Ltd. (1999). An investor's guide to Depositoties, Mumbai, NSDL.

- The Integrated Share News, A Magazine on investment matters (volume IV) dated 16th to 30th June, 2000 and dated 16th to 30th September, 2000.

- National Securities Depository Ltd. (2000). Demat by NSDL – Towards a secure Future, Titled, "Impact of Scripless Trading on business practices of sub-brokers"., Mumbai, NSDL.

- Global Trust Bank Ltd. (2000). Securities Banking, Mumbai, GTB Ltd.

ओपारी : पुर्वजांचें अलंकारीक वास्तववादी दायज
(अंत्रजी मोडीचेर आदेर बोलीचेर आदारून एक अभ्याय)

मनोज एन. कामत

कांकणी भाशेंत साबार बोली भाशा आसात. अंत्रजी ही फोंडें म्हालांतली उलोवपाच्या रूपांतली एक बोली. अंत्रुज वाठार हो उपरांत व्हड - व्हड साहित्यिकांक लागून चड फामाद जालो.

सगळ्या भासांनी ओपारी आसात. ओपार म्हळ्यार भाशेचो जीव, अणभवांचें खतखतीत दर्शन घडोवपी भाशीक सौंदर्य. कोंकणी भाशेंत चडशा सगळ्या बोली भासांनीं ओपारी आसात.

हांगा हांवें फकत अंत्रज म्हालांतल्योच ओपारी घेतल्यात. हयो ओपारी हेर बोलीनीं वा भासांनी मेळूंक येतात.

आमचे जाणटे पिळगेन आपल्या अणभवांचेर आदारून हयो म्हणण्यो घडयल्यो आनी तांचो परत - परत वापर ते करुंक लागले अशे डॉ. जोन्सन हया विव्दानाचें मत जावन आसा.

- सुर्वेच्या बरपांत हांवें ओपार म्हळ्यार कितें, तिची घडण हाचेर भासाभास केल्ल्या.

- उपरांत ५५ ओपारी (खाशेल्ल्यो अशो) दिवन तांचो अर्थ दिला (जो म्हाका होलमला).

- मागीर सुमार ५० फामाद ओपारी ज्यो कोंकणी भाशेंत घोळटात तांची एका फांटोफाट वळेरी दिल्या.

- एकंदर ओपारींचेर उडटी नदर दिवन / दवरुन बरयलां.

- निमाणेकडेन हया ल्हान प्रबंधाचो शेवट केला.

Mr. Manoj N. Kamat, is Lecturer in Konkani, Rosary College, Navelim, Goa.

काळ बदलत आसता. मनीस बदलत आसता. पयलींचो खोंपीत रावपी गांवचो मनीस उदार मनाचो आसलो आनी आयचो बंगल्यांत रावपी मनीस संकुचीत वृत्तीचो जाला, आपलें पुरतें मर्यादीत चिंतपी. शिक्षण नासून लेगीत हो गांवचो मनीस संस्कारांनी बांदील्लो आनी आयज शिकप आसून संस्कार शेणिल्लो होच बदललेलो मनीस. हाका खूब कारणां आसात; पूण दिशीं - दिशीं मनीसपणाक तो फाट करता.

आमची जाणटी पिळगी घडये पयशाफाटल्यान लागूंक नासली आनी तशी परिस्तितीय नासली, देखून मनीस मनशाक लागींचो आसलो. प्रसारमाध्यमांचोय प्रभाव नासलो. चिंतप आनी समाजाक केंद्रबिंदू करून चिंतप हें काम तो करतालो आनी हांगा ताचो स्वार्थूय नासलो. समाजाचें पडबिंब हया विचारांचेर पडत रावलें आनी ओपारी वा म्हणण्यो घडल्यो.वास्तवंवादी चित्रणांतल्यान हें द्रायज फुलत गेलें. हयो म्हणण्यो ओपारी अर्थाचे नदरेन थपथपिल्ल्यो अशो आसल्यो, आपल्या गोंयच्या भुंयेचो वांस आनी कोंकणी भाशेचो स्वास तांतल्यान उकतो जातालो.हयो ओपारी दिसपाक सोप्यो आसल्यो तूरी तांतूत अणभवांची खोलाय आसताली.मो.रोदोल्फ दालगादा सावन उपरांत फा.आंतोन पेरेर मेरेन ओपारिंचेर खूब अभ्यास जाल्लो आसा, आनी आयजूय जायत आसा, दर एका विद्वानान आप-आपले परीन तो फुडें व्हेला.

हांगा म्हज्या संग्रहांत आसपी ४४९ ओपारींतल्यो कांय वेंचीक ओपारी हांवें घेतल्यात आनी म्हजेपरीन तांकां अर्थ लावपाचो यत्न केला. ओपारी हें कोणाचेंच खासा येरांस न्हय, तें आज्या-पणज्याथावन नातरां-मेरेन पाविल्लें दायज. तें सांबाळप, ताची जपणूक करप हें आमच्या हातांत आसा.

ओपारींक अर्थ लावप हें सोपें काम न्हय. कित्याक तर ही ओपार खंयच्या वेळार, खंयच्या वातावरणांत घडली हाका तितलेंच म्हत्व आसा. आयचें वातावरण वेगळें, देखून ओपारीक लायलेलो कस वेगळो थारूंक येता, वा तशी शक्यताय आसा. पूण हयो सगळ्योच गजाली कडेक दवरुन ओपारिंचेर खोलायेन अभ्यास जावप तितलेंच गरजेचें. दुसरी गजाल म्हळ्यार मोडी / बोली बदलतात तशे कांय शब्दांचे अर्थ लेगीत बदलतात. आनी हयाच कारणापासत एका बोलींत येवपी शब्द दुसरे बोलींत समजता आसतना ताचो मूळ अर्थ येतलोच अशेंय ना.

हांगा हांवें एक फाटल्यान एक अशी ओपारींची वळेरी दिल्या आनी म्हाका होलमल्लो तांचो अर्थूय दिलाः

१ - आगीफुडें धुंवोर खावप.

अर्थ - कांय मनीस बरी गजाल करपाची आसता तेन्ना तांतल्यान जावपी वायट परिणाम पयलीं सोदतात. हे लोक सदांच निराशावादी वृतीचे आसतात. तांकां उजो ही बी गजाल दिसपापरस धुंवर ही वायट गजाल दिसता, धुंवर वायट इतल्याच खातीर, तो दोळ्यांत गेल्यार दोळे चुरचुरतात.

२ - अडेचें उदक नाल्लांत घाल्यार गोड जाता ?

अर्थ - नाल्लांत जे उदक आसता ताची रुच वेगळीच आसता आनी जर अडेचें उदक नाल्लांत घालचें पडलें जाल्यार खरी रुच ताका येवुकूच शकना. ढ मनशाक कितलोच शिकयलो जाल्यार तो हुशार बुदवंत जावंक शकना, मनीस आपलो गुणधर्म सोडूंक शकना, तो ताच्या वांगडांच वता.

३ - आपूण आपणांक देव समेस्तांक.

अर्थ - कांय मनशांक समाज माथ्यार बसयता आनी देवाच्या पावंड्यार लेगीत व्हरुन बसयता, पूण देवाच्या पावंड्यार मनशाक खबर आसता आपूण मनीस म्हण कसो तें. देखून लोकांनी देव मानलो तरी आपूण आपल्याक केन्नाच देव जावंक शकना.

४ - अळशिकेंत गुंडो उडौन आंग भोरुन घेंवक.

अर्थ - अळशिकेंत गुंडो / फांतर उडयल्यार आंगार अळशीक उसळटा. अशेच तरेन दोग जाण झगडटात आनी तांचे मर्दीं पडल्यार आपल्याकूय वायट उतरां (गाळी) आयकून घेवचीं पडटात. दुसऱ्याचें वायट करुंक गेल्यार आपलेंय वायट जाता.

५ - उजो लावन पाणयांत धांवप.

अर्थ - कांय जाण दुस ऱ्याचें वायट करतात आनी तें पचोवंक सोदंतात, पुण वायट तगना. एक ना एक दीस तें वयर येताच. उजो लावन उदकांत धावलो म्हण जल्मभर उदकांत रांवूंक नजो केन्नांय तरी उदकाभायर येवचेंच पडटलें.

६ - उट्टा तो बुट्टा.

अर्थ - मनशाक गर्व केन्नाच आसूंक फावना, जो मनीस गर्व करता तो एक दीस शेणटा. मनशान देखुनूच आपली तांक पळोवन पावल घालूंक जाय, पांय व्हड आसात म्हण एक मळबार आनी दुसरो भुंयेर दवरुंक उपकारना.

७   – उदकांतलें उदकांत गेलें .

अर्थ – कांय लोकांच्या हातांत एक-एकदां कश्टा विरैत हातांत सुमारा भायलो पयसो येता. पूण हो पयसो तांकां सांबाळपाक येना; तेन्ना ही म्हणणी वापरतात. उदक सदांच उदकांत वचून एकवटीत जाता.

८   – उंदराच्या रागान घरा उजो लांवक.

अर्थ – उंदीर घरांत घुडगूस घालतात म्हूण तांका जळोवंक घराक उजो लावंक फावना. आनी उजो लायलोय जाल्यार उंदीर हुशार आसतात ते पयलींच पळटात, देखुन तांकां हुशारकायेन मारुंक जाय; घराक उजो लावंक जायना. एका मनशाक लागून घराचो नाश करचो न्हय.

९   – उपकारांक फापार दिवप.

अर्थ – मनशान दुसऱ्यान केल्ले उपकार केन्नाच विसरुंक फावनात, पूण चडशेफावटी आनी दुसऱ्यान केल्लो आदार विसरतात आनी गरजेंत आसपी पयली आमकां आदार करपी मनशाक विसरतात वा वळखनाशिल्ले भशेन करतात.

१०   – ऊंस गोड की सांगात गोड ?

अर्थ – ऊंस कितलोय गोड आसूं ,पूण मनशाचो सांगात हो सगळ्यां परस गोड आसता .बऱ्या मनशाच्या सांगातान वायट मनीसलेगीत बरो जावंक पावता.

११   – ऊंस गोड म्हूण ताडासयत खांव नये.

अर्थ – आमच्या हातांत बरी गजाल मेळ्ळी म्हूण आमी तीचो सुमाराभायर फायदो काडूंक जायना ,आपल्याक जाय तितलीच ती घेवंक जाय .आनी अशें करतकूच दुसरे पावटी ती गजाल आमकां उपकार पडूंक येता.

१२   – उमथ्या कोळशार उदक.

अर्थ – कांय लोकांक कितलेय समजायले जाल्यार लेगीत ते आपलें तेंच खरें म्हणटात. तांका समजावन कांयच फायदो ना. जशें कोळसो उमथो दवरुन ताचेर उदक रकयल्यार तें धरना, सकयल पडटा तशेंच हांगाय जाता.

१३ - खाकें आसा चेडो, भोंवता सोगळो वाडो.

अर्थ - कांय फावटी आमी विसरतात आनी ती गजाल सोद - सोद सोदतात निमाणेकडेन ही गजाल आमचे सामके बगलेक आशिल्ली हें कळना फुडें आमकां आमचोच हांसो येता.

१४ - देवाच्या खुशीभायर एक काडी हालना.

अर्थ - आमीं कितलेंय येवजीलें म्हूण तें मनासारकें जाताच अशें ना. देखून कांय लोक ताका नशीब म्हणटात जाल्यार कांय लोक ताका देवाची मर्जी म्हणटात. देवाचों साथ नासल्यार कितलेंय कश्ट केल्यार व्यर्थ जाता.

१५ - कावळ्याची दिश्ट तवशार.

अर्थ - कावळ्याची नदर खूब खर आसता, पयसल्यान लेगीत ताका खावपाचो जिनस दिसता. तवशें वेळींत कितलेंय लिपिल्लें आसूं कावळो तें रोकडेंच सोदून काडटा. कांय मनशांची दृश्ट आपल्या फायदयाकडेन चड आसता, आपलो फायदो ना तें काम तो करीना.

१६ - केंस काडल्यार मडें ल्हव जायना.

अर्थ - कांय पावटी कांय कठीण प्रस्न आमच्या मुखार उबे जातात ते कितलेंय केल्यार सुटनांत, अशा वेळार दुसरो कोणूय उपाय योग्य नासता. अशा वेळार ही ओपार वापरतात.

१७ - खणीसारकी माती, मातयेसारक्यो भिंती / वणटी.

अर्थ - जशी खण आसता तशी खणीची माती आसता. देखीक, खणींत बरी माती मेळल्यार खण बरी मानतात. आनी माती बरी आसल्यार घराच्यो वणटी लेगीत घट्ट जातात. हांगा मनशाचो सभाव बरो आसल्यार तो घरच्या सगळ्या मनशांक येता आनी घरचीं सगळीं भुरगीं लेगीत मानान रावतात, जाणटयांचो आदर करतात अशें म्हणूंक जातलें.

१८ - खाता पिता, देव दिता.

अर्थ - मनशान सदांच खोशी आसूंक जाय, तशेंच आशावादी आसूंक जाय, खावन पिवन सुखी आसपी मनशाक सदांच देव पावता. तेच परी ताणें कश्टूय करचें, बेकार बसून खावचें न्हय, पूण निराशाय मानची न्हय. खोशयेन जीण सारची.

१९ - आंबट खाता ताच्या ताव्ल्याकडेन कचरता.

अर्थ - जर आमी चड आमट खालें जाल्यार तें आमच्या ताव्ल्याकडेन येता. तेच प्रमाण दुच्याचें वायट केल्यार ही गजाल परत - परत येवजून येता आनी आमीं दुखी जातात.

२० - खैं गेलो खैं ना, कितें हाडलें कांय ना.

अर्थ - आमकां कोणेय कितेंय विचारल्यार आमी खरी गजाल केन्नाच सांगिनात, ताचेर आदारुन ही ओपार आसा. आपूण करतां ती गजाल हेरांक कळत, देखून घडये आमी खरें सांगिनात.

२१ - गरजे पुरतीं कामा, नायकापुरती कडी.

अर्थ - कांय पावटी आमकां गरज भागोवपाक कांय गजाली जाय आसतात. देखून जाय तितलींच कांमा आमी करतात. पयलीं नायक (कामगार ह्या अर्थान आडनांव ह्या अर्थान न्हय) कामाक आसलो जाल्यार ताच्या पुरतीच कडी (हुमण) रांदताले.

२२ - आपले गरजे, गाढव राजे.

अर्थ - केन्नाय आमचे काम वेळार जावचें म्हूण आमी नाका त्या मनशाक माथ्यार बसयतात, आनी गरज भागयतात ,अशा वेळार मुखावेलो मनीस जें सांगता तें आपणे मुकाट्यान आयकून घेवचें पडता.

२३ - गाय आनी मांय सारकी.

अर्थ - गाय आनी मांय (आवय) हीं दोगांय मायेचें प्रतीक जावन आसात, तीं आमकां खूब मोग, माया, आदार सूख, आपलेपण दितात.गाय जाल्यार आमकां दूद दिता, देखून तिका देवाच्या पावंडयार मानल्या, तशेंच आपूण कितलेय कश्ट काडून आवय भुरग्यांक वाडयतात.

२४ - गिरेस्ताचे बायलेक कोणींय व्होनी म्हटा.

अर्थ - गिरेस्तकाय आनी गरिबी हांच्या मजगतीं आसपी फरक हांगा दिसता.गरिबाक कोण लागीं करिनात ,जाल्यार गिरेस्त मनीस सगळ्यांक जाय-जाय कसो दिसता .गिरेस्त मनशाची बायल व्होनी म्हूण सगळ्या गावांत फामाद आसता.

२५ - गुणाक पुजा,अवगुणाक इजा.

अर्थ - गुणेस्त मनीस सगळ्यांक आवडटा,ताची फाम पुराय वाठारभर पातळटा आनी वायट गुणाचो मनीस मात कोणाक नाका आसता,देखून सगलेकडेन ताणें केल्ले चुकीक लागून ताका मार पडटा.

२६ - गोरवांत गोरूं आसल्यार शिंग आदळटा.

अर्थ - दोन मनीस (दादले)वा बायलो जरीं एकटांय रावतात ताच्यो आवडी सारक्यो आसल्यो, तरीं लेगीत कांय पावटीं बारीक कारणावेल्यान तांचे मजगतीं झगडीं उपरासूंक येतात .ही म्हणणी चडकरून रासवळ घराब्याक लेखून आसा.

२७ - आंधळ्याचें गोरूं देव राखता.

जाप - आंधळो म्हळ्यार कुड्डो.जर तो गोरवांक घेवन तांका चरोवपाक दोंगरार घेवन वता, जाल्ल्यार लेगीत ताचें गोरूं शेणना तें मालकाक वळखता,देखून ताका देव राखता अशें म्हणलां .संवसारांत जाका कोण नासता ताच्या फाटल्यान सदांच देव आसता.

२८ - चड ओट्टा, थै तुट्टा.

अर्थ - कसलीय गजाल चड ताणून घरली जाल्यार ती तुटतलीच, घरांत लेगीत हेरांक समजून घेनासतना आपले तेंच खरे म्हूण तेंम केल्यार घरचे बाकीचे लोक दुखावतात.

२९ - चंदना सांगाता आसलेलो रूख चंदन जाता.

अर्थ - हांगा सबावान बरो आशिल्ल्या मनशाचो सहवास कितलो बरो आसता आनीताका लागून हेर लोकूय कशे त्या मनशाकडेन प्रभावीत जातात हें कळटा .चंदनाच्या लाकडाचो वास पयसमेरेन पातळटा,देखून अशा ह्या रानांतले झाड चंदनाचें हे वळखप कठोण जाता .तशेंच वायट मनीस लेगीत बरो जाता.

३० - चांभाराची नजर पांयार.

अर्थ - चांभार हो जोत्यांचो धंदो करपी मनीस. जोतीं तयार करप, तुटिल्ली जोती शिवप हें तांचे काम, देखून पयलींच्या काळार चामाराक हटकूंक गेल्यार खंय तो पांयाकडेन पयलीं पळयतालो कांय लोक कामापुरतेच लागसाण दाखयतात, आपलें काम जावचें हीच तांची आस आसता.

३१ - चार दीस मांयचे ,चार दीस सुनेचे.

अर्थ - घरांत नवी आयलेले सुनेक पयलीं-पयलीं मांय दटायता, पूण एकदां सुनेन त्या घरांत आपली सुवात केली की सून मांयक चणचणायता.देखून आयज ना फाल्यां दर एकल्याचो दीस आसता.

३२ – जाल्ल्याचो गूण मेल्याबगर वचना.

अर्थ – मनीस जल्माक येत सावन उपरांत ज्या वातावरणांत वाडटा तशे ताचेर संस्कार जातात. उपरांत हे गूण बदलनांत वा बदलपाक कठीण आसतात. देखुनूच कांय गूण, खोडी, व्यंगां मेल्याशिवाय वचनांत ती आपलो एक भाग जावन रावतात.

३३ – जीव उल्ल्यार भीक मागून खांव येता.

अर्थ – आपूण आपल्याक स्रेश्ट आसता, देखून संकटांत पडल्यार मनीस आपल्याक सोडून कोणाक वळखना, देखून कशेंय जगल्यार जाता पयलीं आपलो जीव वाटावप म्हत्वाचें, आपल्यावैलें संकश्ट गेलें जाल्यार भीक लेगीत मागून जगपाची तयारी आसता.

३४ – एक जीव, सदाशीव.

अर्थ – आपूण आपल्याच कामांत दंग आसपी मनशाक ही म्हणणी म्हणटात. एकलोच मनीस आसलो जाल्यार ताच्यान कशेंय जगूंक येता, आपली जीण सारूंक येता. पूण परिवार / घराबो चलोंवपी मनशाक नेमिल्ले तरेनूच जगपाक जाय, आपल्याक जाय तशें ताका जगूंक मेळना, तो हेरांखातीर जगता.

३५ – झांकून झांकून गांवकार जावप.

अर्थ – कांय लोक गावांत अनवळखी म्हूण येतात आनी इले - इले करुन गांवच्यो बारीकसाणीं समजून घेतात, उपरांत आपूण हयाच गांवचे आशिल्लेभशेन आरामात रावतात. अडेची हुशारी आशिल्या आनी उपरांत हेरांक हुशारकाय सांगपी मनशाक अशें म्हणटात.

३६ – झांडासारखें फळ.

अर्थ – जशें झाड आसता तशेंच फळ ताका जाता, दुसरें फळ जायना; देखून आवयबापूय जशे आसतात तशेच संस्कार भुरग्यांचेर जावन आपल्या आवयबापायचे गूण भुरगीं घेतात.

३७ – तेकडेन म्हौं काडल्यार तोंडांत पडना.

अर्थ – म्हौव काडप हें एक कठीन काम. पोळें काडटा आसतनां मूस चाबतात इतलेय करुन तें काडलें, जाल्यार काडटल्याक तें मेळटा. परक्याक कशें मेळटलें. आपणें कश्ट केल्या बगर आपल्याक फळ मेळना.

३८ - तूप खातल्याचें रुप दिसता.

अर्थ - ज्या मनशाक सूख मेळटा, बरें - बरें खांवप मेळटा तो रोकडोच आंगान भरता. तूप चड खावपी लोक सदांच तुकतुकीत आनी रुपेस्त आसतात.

३९ - तोंड आसल्यार वाट आसा.

अर्थ - ज्या मनशाक तोंड आसा म्हळ्यार दुसऱ्यांकडेन उलोवपाक, विचारपाक जो घजना तो केन्नाच खंय परके सुवातीर गेल्यार लेगीत शेणूंक शकना. तो वाट विचारीत - विचारीत आपल्या वचूंक जाय ते सुवातीर पावता.

४० - दांत आसा ताणें चणे खावचे.

अर्थ - मनशान आपल्याक झेपता तेंच काम करचें, आपल्या आवाक्या भायल्या कामाच्या वाट्याक वचचें न्हय, ना जाल्यार ताचे त्रास परत आपल्याकूच भोगचे पडटात.

४१ - दांतूय म्हजे, ओंठय म्हजे.

अर्थ - आपल्या विश्वासांतल्या मनशान वा आपल्या घरच्या मनशान कसलीय चूक केली जाल्यार ताची वाच्यकथा करिनांत; ही गजाल वोगी रावून तिचेकडेन आडनदर करची पडटा, आपल्यांचेरुच टिका कशी करप ?

४२ - घोडयाऱ्याच्या कपळांतलो फांतोर चुकना.

अर्थ - घोडयारो हें एक नुस्तें ताच्या तकलेंत फांतर आसतात (धव्या रंगाचो दोन फांतर). खंयची गजाल कांय पावटी आमकां करपाची नासता, पूण उपाय नासून आमकां ती कांयपावटी करचीच पडटा; तशेंच घोडयाऱ्याचें, आपले इत्सेन तो फांतर मागून घेना, ते ताका जल्याथावन मेळील्ले आसतात.

४३ - नदरेन चोर पारखूं येता.

अर्थ - मनशाचो सबाव ताच्या मुखामळावेल्यान दिसून येता. ताच्या मनांत पातक आसा काय तो मनचो नितळ आसा हें पांयलेच नदरेन ओळखूंक येता. चोराक सदांच आपल्याक कोणूय घरत म्हूण भिरांत आसता.

४४ - नाखटाच्या कामाक कुराड कित्याक ?

अर्थ - घाकट्या कामाक घाकटें आयिद्द जाय. नाखूट कापपाक कुराड
उपकारना त्या त्या कामाक तो तो उपाय/येवजण जाय ल्हान प्रस्न
सोडोवंक व्हड येवजण करूंक फावना.

४५ - पायांची व्हाण पायांकूच बरी.

अर्थ - खंयचे गजालीक कितलें म्हत्व दिवप हें आपल्या हातांत आसता.
पांयाक घालपी जोतें माथ्यार घेवन नाचूंक फावना .कामाचो दर्जो
पळोवन ताका म्हत्व दिवूंक जाय.

४६ - पिशा हातांत कोलीत दिवप.

अर्थ - पिशा मनशाक कितें बरोबर आनी कितें चूक तें समजना देखून
ताच्या हांतांत पेटपी उजो दिल्यार तो पुराय घर हुंलपायतलो. त्या
- त्या कामाची पारखणी करुन तें तें काम योग्य मनशाच्या हातांत
सोपोवंक जाय.

४७ - पोट भरतच घरे आंबट.

अर्थ - मनशाक आपलें काम जालें की तो खोशी जाता, दुस-याचें काम
ताच्या तकलेंत वचना. पोट भरतकच गोड पणसा घरे लेगीत आंबट
लागतात. पोट भरिल्ल्या मनशाक रुचीचो व्हालोर नासता.

४८ - फाल्साक रंग चड.

अर्थ - फट गजाल खरी करुन सांगतलो जाल्यार ती रंगोवन सांगची
पडटा, ना जाल्यार ती घडये खरी दिसचीना हाचो भंय आसता.
देखून ती मातशी मीट मसालो लावन रुचीक करपाचो यत्न जाता.
एक गजाल फट सांगतलो जाल्यार साबार फटी मारच्यो पडटात.

४९ - बैल सांडलेल्याच्या कानाकडेन घांटी वाजतात.

अर्थ - जाचो बैल शेणला ताका खंयूय गेल्लेकडेन कसलोय आवाज जालो
जाल्यार आपल्याच बैलाच्या गळ्यांतल्यो घांटी वाजिल्लेभशेन दिसता,
आपलोच बैल लागीं आशिल्लेवरी दिसता. आपली वस्त शेणली
जाल्यार मनीस ती सुवातीनीं सोदता, ताका कशेंच सुख लागना.

५० - भिकाऱ्याक भिकारी नसाय.

अर्थ - आपल्या सारखो दुसरो मनीस आमकां नाका आसता. देखीक भिकारी दुसरो भिकारी पळयल्यार आपल्याक भीक पडटलें तें दुसरो व्हरत म्हूण ताचेर बेजार जाता. मनशाक दुसऱ्याचें बरें जाल्लें पळोवंक नज जाता.

५१ - माजर मासळी सांडीत तेन्ना सोरेकार सोरो सोडीत.

अर्थ - माजराक नुस्त्यापरस प्रीय अशें कांयच नासता. तें नुस्त्याबगर रावूंक शकना, सोरेकार लेगीत सोन्याच्या वेसनातल्यान सहज भायर येवंक शकना. आपल्याक प्रीय आशिल्ली वस्त सोडप खूब कठीण.

५२ - रेडे पाडे झुजतात, झाडांचेर काळ.

अर्थ - आपली दुस्मानकाय आपणें आपल्याकडेच दवरची ना जाल्यार तिसऱ्याच मनशाक कारण ख्यास्त भोगची पडटा. रेडे पाडे झुजतना झांडा माडवतात आनी मरतात.

५३ - वाडलेलें नाका सांडलेलें जाय.

अर्थ - कांय लोकांक बरेपणान दिल्ली वस्त नाका आसता, तांका झगडून दुसऱ्याकडल्यान घेतिल्ली वस्त जाय आसता. दुसऱ्याचे सदांच तांकां बरें दिसता, आपले वस्तिचो वालोर नासता.

५४ - शेवट्यापरस गाबोळीं व्हड.

अर्थ - कांय लोकांचे नखरे चड आसतात. गाबोळी म्हळ्यार नुस्त्याचो गाम तो नुस्त्यापरस व्हड आसूंक शकना. हुशारी कितली आनी बढायो कितल्यो हें ज्या मनशाक खबर ना, ताचेखातीर ही ओंपार वापरतात.

५५ - नवे व्हॉवलेक केळीं उंडे मागीर तिका फातर गुंडे.

अर्थ - व्हंकल जेन्ना नवीच लग्न जावन येता तेन्ना तिका खंय दवरूं आनी खंय नाका अशें सगळ्यांक जाता, पूण उपरांत व्हंकल सदचीच जाता, तेन्ना तिका सगळीं संकश्टां सोसचीं पडटात, सुरवेक कांय दिस नवे व्हकलेची तुस्त तोखणाय जाता, पूण उपरांत सदचेंच रडगाणें तिच्या नशिबांत येता. खंयचीय गजाल नवीन आसता तेन्ना तिका म्हत्व आसता, उपरांत तिचें म्हत्व इलें - इलें करुन उणें जाता.

अशे तरेन लोकांच्या / भौसाच्या तोंडार घोळपी सुमारा भायल्यो ओपारी आसात. हो एक प्रबंदाचो विशय. ही म्हणींची खण खणीत तितली खोल वता आनी तितलेच बरे चिरे दिता. संवसारांतल्या चडशा सगळ्या भासांनी ओपारी आसात. लोकमान्यताय हो ओपारींचो आत्मो जावन आसा. लोकांच्या तोंडार ओपार जितली घोळटा तितलीच ती फामाद जाता. अलंकारीकताय हें ओपारींचे सौंदर्य आनी अणभव हें मूळ ; ह्या अणभवांचेर ओपारींचो रुख वाडत वता.

कोंकणींतल्या कांय फामाद ओपारींची वळेरी सकयल दिल्या :
- शेळे आंगार फुगांव येवप.
- सुण्याची शेंपडी वांकडी ती वांकडी.
- गाय मारुन बामणाक क्राण.
- गांवासारखो भेस, गुरुसारखो उपदेस.
- अडेच्या गिरेस्ताचें रिण काडूं नये.
- कापूस जोखता थैं मूस उपाशीं.
- गोसांयाक मान की गोसांयाच्या सुण्याक मान ?
- चाबून खाल्यार रुच गमता.
- चोराक घर परकें.
- झाड रट्टा फळाक, पूण फळ रडना झाडाक.
- दोळे पापी, जीव सुवराती.
- दोळ्यांआड, मसण पाड.
- दुवाळ्यांक खायन दिसलें तेरें, फुडें खैंचें जातलें बरें.
- धुकराच्या सोंडेक मुदी घाल्यार जाता ?
- नंडणी थोडी पूण कंडो मोठो.
- न्हिविल्लें शीत मुठल्याक येना.
- पावसा पाणयाचें, वराड वाणयाचें.
- आसा पांघरुक खाता शीं.
- पांची बोटां सारकीं ना.
- फाटीर मार पूण पोटार मारु नाका.
- फूल फुलल्याबगर परमळना.
- बुद्द आसा ताका भांडवल आसा.
- भुरग्यांचे नयणेक बीं ना भात.
- भल्लेली मूठ सवाय लाखाची.
- मनांत आसता तें स्वप्नांत दिसता.
- मेल्याबगर सर्ग मेळना.
- माजराचो खेळ उंदाराचें मरण.
- मेल्ले म्हशीक बारा शेर दूद.
- मोग आसल्यार हून उंडे घांटार पावतात.
- मोग आसा थंय शीण आसा.
- रागाक दोळे ना.

- राजा तशी प्रजा.
- लजेक आनी पेजेक पडना.
- फोंडाची माती फोंडाकूच.
- व्हाण काडीना, उदकांत देवना.
- वारें येता तशें सूप दिवप.
- शिमगो सल्लो कवनां उल्ली.
- सवाय खाण पोटपुर्गें.
- सुपांतले तांदूळ आदनांतल्यांक हांसतात.
- हातच्या कांकणांक हारसो नाका.
- हांसता ताचे दांत दिसता.
- आपलें नाशें आनी जगाचें हाशें.
- देवाक हात, गुरवाक भात.
- जोर रट्टा पेजेक.
- उश्टया हातान कावळो आमडीना.
- गरजेवंताक अक्कल ना.
- कान फूंक म्हव्ल्यार वान फूंकता.
- देखलें मडें आयलें रडें.
- बापूय करता पाप, भुरगीं दिता जाप.
- रुं ना थैं पूं काडप.

अशे तरेन कोंकणी भाशेंत शेकड्यांनी ओंपारी आसात. पूण आयचो काळ बदलत आसा. मास बदलत आसा, ती व्यवहारीक आनी मेजकी जायत आसा; आयच्या मनशांक कम-धंदो आनी मनोरंजन सोडल्यार हेर भाशीक गजाल्लीक / उलोवण्यांक म्हत्व दिवपाक वेळ ना. पूण आमच्या घरच्या जाणट्या लोकांच्या त्रोंडांत ह्यो ओंपारी अजून घोळटात. समाजीक कृत्यांचें मुल्यांकन ह्यो म्हणण्यो कर्तात्यो म्हव्ल्यार अतिताय जावची ना.

मो. रोदोल्फ दाल्गाद ह्या म्हणण्यांची अभ्यासू नदरेंतल्यान वांटणी करुन त्यो संस्कृतातल्यान आयिल्ल्यो, पोर्तुगेजांच्या प्रभावान घडिल्ल्यो, तशेंच खासा देशी वाठारातल्यान निर्मिल्ल्यो मेळटात अशें म्हणटात.

ओंपार आयकूंक सोपी दिसता , पूण ती अर्थान भरिल्ली आसता .म्हॊंवा पोळें भायल्यान खड्बडीत दिसता , पूण ताच्या मितर म्हॊंवाचो भांडार भरिल्लो आसता , आनी आमी जेन्ना म्हॊंवाची रूच घेतात तेन्ना तें कितलें रूचीक हें आमकां होलमता तशीच ओंपार .म्हणणी म्हव्ल्यार आमचें पड्बींब दाखोवपी हारसो, पूण हारसो आमी आसात तशें दाखयता, म्हणणी मात आमचो गूण, अवगूण, रिती-रिवाज, वागणूक, नीत-अनीत, कुत्राटेपण, आनी अशा साबार हेर बऱ्या-वायट गुणांचेर व्यंगात्मक नियाळ करता.

REFERENCES

- Talmaki S. S., (1991) 'Konkani Proverbs and Idioms,' Published by Manmohan Bhatkal
- देशपांडे, कमलादेवी राव (१९९८) 'म्हणी फट्टली कऱणी', उजवाडवपी : प्रा. हरिश्चंद्र नागवेंकर,
- फ्र. पेस्व आन्तोनियो, 'Konkani Oparinchem Bhandar' -The Treasure of Konkani Proverbs.