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A Special Article On Women Rights In India

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Women Rights entrenched in the Constitution :

* Article 14: "The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India."
* Article 15(1): "The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them."
* Article 15(3) provides for affirmative and positive action in favour of women and children by empowering the state to make special

provisions for them.
* Article 39(a) ensures right to adequate means of living for men and women, and the right to [d] equal pay.
* Article 39A: "The State shall secure that the operation of the legal system promotes justice, on a basis of equal opportunity, and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities."
* Article 42 states that the State makes provision for securing just and humane conditions of work and for maternity relief.
* Article 44 states that "the State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India."
* Article 297(1): "All lands, minerals and other things of value underlying the ocean within the territorial waters, or the continental shelf, or the exclusive economic zone, of India shall vest in the Union and be held for the purposes of the Union."
* Article 298 states that the executive power of the Union and of each State comprises the carrying on of any trade or business and to the acquisition, holding and disposal of property and the making of contracts for any purpose.
* Article 300A: "No person shall be deprived of his property save by authority of law."

Women's property and use rights in personal laws :

Personal laws vary according to religion. The 1955 Hindu Marriage Act and the 1956 Hindu Succession Act govern the Hindus. The 1937 Muslim Personal Law Shariat Application Act and the 1986 Muslim Women's Protection of Rights on Divorce Act govern Muslims. Christians and Parsis are governed by the Christian Marriage Act and the Parsi Marriage and Divorce Act.

The Hindu Marriage Act, 1955 amended in 2001:

* Article 5 states that a marriage may be solemnized between any two Hindus who willingly consent to marriage, are not already married and have reached the age of 21 for the groom and 18 for the bride.
* Article 7(1): "A Hindu marriage may be solemnized in accordance with the customary rites and ceremonies of either party thereto."
* Article 10(1) states that either party to a marriage, whether solemnized before or after the commencement of the Act, may petition for a decree for judicial separation on any of the grounds of adultery, cruelty, desertion, conversion to another religion and mental disorder.
* Article 13B provides for divorce by mutual consent when a petition for dissolution of marriage by a decree of divorce is presented to the district court by both the parties to a marriage.
* Article 17 states that any marriage between two Hindus is void if, at the date of such marriage, either party had a husband or wife living; the provisions of sections 494 and 495 of the Indian Penal Code shall apply accordingly.
* Article 27: "In any proceeding under this Act, the court may make such provisions in the decree as it deems just and proper with respect to any property presented, at or about the time of marriage, which may belong jointly to both the husband and the wife."

The Muslim Personal Law (Shariat) Application Act, 1937:

* Article 2 states that Muslim Personal Law Sharia applies to all Muslims in all questions, save those relating to agricultural land, regarding intestate succession, special property of females, including personal property inherited or obtained under contract or gift or any other provision of Personal Law, marriage and dissolution of marriage

The Dissolution of Muslim Marriages Act, 1939:

* Article 2 states that a woman married under Muslim law shall be entitled to obtain a decree for the dissolution of her marriage on the following grounds: disappearance of the for a period of four years; neglect or lack of maintenance for a period of two years; husband's imprisonment for a period of seven years or upwards; failure of performing marital obligations for a period of three years.
* Article 5: "Nothing contained in this Act shall affect any right which a married woman may have under Muslim law to her dower or any part thereof on the dissolution of her marriage."

The Muslim Women Protection of Rights on Divorce Act, 1986:

* Protects the rights of Muslim women who have been divorced by, or have obtained divorce from their husbands and provides for all connected matters.
* Article 3 (1) entitles the divorced Muslim woman to [a] "a reasonable and fair provision and maintenance" to be made and paid to her within the idda period by her former husband; [b] maintenance for children in her custody born before or after the finalisation of the divorce; [c] any outstanding dower, and [d] any property given her before or during marriage by her relatives or friends or the husband or any relatives of the husband or his friends.

The Indian Christian Marriage Act, 1872:

* Article 27 states that all marriages solemnized between persons one or both of whom professes or profess the Christian religion shall be registered.

come to or devolve upon her. Such property may be disposed of by her in all respects and in case she dies intestate, go as the same would have gone if her husband had then been dead
* Article 30 states that if the husband, or any creditor seizes any property of the wife, he shall be liable, at the suit of the wife, to return or deliver to her the specific property, and also to pay her a sum equal to double its value.

The Parsi Marriage and Divorce Act, 1936 amended in 2001:

* Article 6 provides that every marriage under this Act shall be registered.
* Article 32B states that a suit for divorce may be filed by both the parties to a marriage on the ground that they have been living separately for one year or more, that they have not been able to live together and that they have mutually agreed that the marriage should be dissolved.
* Article 34 states that any married person may sue for judicial separation on any of the grounds for which such person could have filed a suit for divorce.

The Indian Divorce Act, 1869 amended in 2001:

* Governs divorce among Christians
* Article 10 states that the husband may petition for divorce on the grounds that his wife has been guilty of adultery. A wife may petition for divorce on the grounds that the husband has changed his faith from Christianity to

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Keep your face to the sunshine and you cannot see a shadow.

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* Article 42: "the Court may make such provisions in the final decree as it may deem just and proper with respect to property presented at or about the time of marriage which may belong jointly to both the husband and wife."

The Special Marriage Act, 1956 provides for compulsory registration of marriages irrespective of religion. The Married Women's Property Act, 1974 Article 4 provides for married women's earnings to be their separate property. The 1867 Portuguese Civil Code, applicable to the residents of the state of Goa and the union territories of Daman and Diu, is the only law that accords wife effective rights to the property of her husband during marriage. The Equal Remuneration Act, 1976 ensures equal wages for equal work including women.

The Indian Succession Act, 1925 amended in 1991:

* It governs all people registering civil marriage under the 1956 Special Marriage Act.
* Article 32: "The property of an intestate devolves upon the wife or husband, or upon those who are of the kindred of the deceased, in the order and according to the rules" specified in the Act.
* Article 33 provides that the widow gets on third and the children two thirds of the estate. If there are no children, the widow gets one half and the other half goes to the kindred of the deceased. If there are neither kindred nor children, the widow gets the whole property.
* Article 59 states that every person of sound mind not being a minor may dispose of his property by will.

The Hindu Succession Act, 1956 amended by the Hindu Succession (Amendment) Act, 2005:

* It codified the Hindu Personal Law into statutory law, which applies to Hindus, Sikhs, Jains and Buddhists.
* Article 6(1): the daughter of a coparcener shall i. by birth become a coparcener in her own right in the same manner as the son; ii. have the same rights in the coparcenary property as she would have had if she had been a son; iii. be subject to the same liabilities in respect of the said coparcenary property as that of a son.
* Article 6(2): Any property to which a female Hindu becomes entitled shall be held by her with the incidents of coparcenary ownership and shall be regarded as property capable of being disposed of by her by testamentary disposition.
* Article 6(3)(a) provides that the daughter is allotted the same share as is allotted to a son.
* Article 10 states that the property of an intestate shall be divided among the heirs in class I of the Schedule in accordance with the following rules: i. The intestate's widow, or if there are more widows than one, all the widows together, take one share. ii.. The surviving sons and daughters and the mother of the intestate shall take one share.
* Article 14(1): Any property possessed by a female Hindu, whether acquired before or after the commencement of this Act, shall be held by her as full owner.
* Article 30 states that any Hindu may dispose of by will or other testamentary disposition any property in accordance with the provisions of the Indian Succession Act, 1925, or any other law for the time being in force and applicable to Hindus.
* In case of testamentary succession, the act grants testators absolute freedom of will, i.e. no necessary inheritance share is reserved for family members. This provision is in practice often used to disinherit widows and daughters.

The Muslim Personal Law (Shariat) Application Act, 1937:

* Article 2 states that Sharia law shall apply to intestate succession and personal inherited family property of females between Muslims
* Explicitly excludes inheritance of agricultural land from the scope of the Act. However, Some states have extended the Act to agricultural land.
* Women's inheritance share is half of that of a man in the same succession position.
* While Islamic law restricts women's inheritance, it does entitle women to direct inheritance rights .

Land Legislation

* Article 246 of the Constitution gives the states exclusive power to make laws for their territories. The autonomy of the states has translated into a significant degree of variation across states and over time both in terms of the number and type of land laws and regulations enacted. Since it not possible to list the multitude of state land laws, the categories of laws and their main features are instead provided.

Land laws can be roughly divided into four main categories:

* Laws to regulate tenancy contracts.
* Laws to abolish intermediaries who worked under zamandari feudal lords to collect rent. Most states passed legislation to abolish intermediaries prior to 1958.
* Laws to implement ceilings on land holdings, in order to redistribute land in excess of such ceilings.
* Acts to consolidate disparate holdings

Tenancy reform acts were enacted by various states between 1960 and 1972.

Although national policy guidelines were given, the resulting reform laws varied extensively across states. In Andhra Pradesh, leasing is permitted but regulated. In Telangana region leasing out land by large holders is prohibited. In Assam, there are no restrictions on leasing out land. In Bihar, leasing out is prohibited except for people with disability. Public servants with a salary not exceeding Rs. 250 are included under exempt category. In Gujarat, leasing is prohibited and unauthorized leasing is punishable offence with a fine up to Rs. 1000. In, Punjab and Haryana, there is no ban on leasing and the tenants do not acquire any rights on land. In, Tamil Nadu, leasing is permitted but the law stipulates that every contract should be in written form. A copy of the document shall be deposited with the revenue officials. In Uttar Pradesh, lease for any period is prohibited. Exemptions are allowed for widows, unmarried women, military people, students and physically disabled. Legislation providing for ceilings on agricultural holdings was enacted in two phases: 1955-1972 and 1972-present. The second phase attempted to tackle some of the loopholes of the first sets of laws in terms of retrospective transfers, exemptions and criteria for fixing ceilings. In 1972, national guidelines on legislation providing for ceilings on agricultural holding were issued. As a consequence, all the states modified or enacted their own laws. As for calculation of ceilings, the legislation usually fixes a land ceiling for each household of up to five members and allows additional land for larger households, considering adults and children as separate units. However, in many states, such as. Bihar and Andhra Pradesh, only adult sons, and not daughters, can be counted as separate units. Kerala is an exception, as it allows both unmarried adult sons and daughters to be considered as separate units.

Policies/Institutional mechanisms enforcing or preventing women's land rights

The Department of Women and Child Development, established in 1985 and upgraded to a full Ministry in 2006, "formulates plans, policies and programmes; enacts/ amends legislation, guides and coordinates the efforts of both governmental and non-governmental organisations working in the field of Women and Child Development". The National Commission for Women, established in 1992 under the 1990 National Commission for Women Act, is mandated to safeguard the rights and legal entitlements of women by ensuring constitutional guarantees of equal status to women, reviewing the existing legislations, recommending suitable amendments and providing a forum for women. Several states have set up similar state commissions for women to act as ombudsmen for women in the States. As of 2005, State Commissions for Women had been constituted in 20 out of 28 States and 7 Union territories. The National Policy for the Empowerment of Women of 2001 prescribes that efforts be made to ensure that benefits of training, extension and various programmes reach women engaged in agriculture in proportion to their numbers. The policy also provides that the programmes for training in soil conservation, social forestry, dairy development and other occupations like horticulture, small animal husbandry, poultry, fisheries be expanded to benefit women workers in the agriculture sector. The policy also seeks to encourage changes in personal laws such as those related to marriage, divorce, maintenance and guardianship so as to eliminate discrimination against women, with the initiative of and with the full participation of all stake holders, including the community and religious leaders. As a result of the Government's commitment to encourage amendments in legislations relating to ownership of property and inheritance, the Hindu Succession Act, 2005 was amended to enable daughters to inherit ancestral properties. Efforts have been made to redress the gender imbalances in land distribution programmes through the provisions contained in several five year plans:

* The 1980-1985 Sixth Five Year Plan, provided for joint titles to spouses; however, this policy was not confirmed in the 1985-1990 Seventh Five Year Plan.
* In the 1992-1997 Eight Plan, 40 per cent of forfeited land was allocated to women, and the remaining land to both spouses through joint titles.
* The 1997-2002 Ninth Plan had a women's land rights section and provided for land titles mainly distributed to women through women's groups or individually.
* The 2002-2007 Tenth Five Year Plan aimed at ensuring effective implementation of land reform legislations setting ceiling so as to guarantee the distribution of surplus land to women.
* The 2007-2012 Eleventh Five Year Plan agenda for women in agriculture aims at ensuring effective and independent land rights for women and strengthening women's agricultural capacities.

The Plan will ensure direct transfers of land to women through land reforms, anti-poverty programmes, and resettlement schemes. It will include individual or group titles to women in all government land transfers, credit support to vulnerable women to purchase or lease land, records and legal support for women's inheritance rights, incentives and subsidies on women owned land. The Government has been issuing Joint Pattas or title deeds in the names of both husband and wife, thereby making women joint-owners of land. Efforts are being made on a pilot basis to improve women's access to land by providing community wasteland, fallow land, surplus land to women's self help groups on long-term lease basis and to promote joint pattas. Under these schemes, 4,200 acres of surplus/fallow land have been provided to 2 206 women groups. In Orissa, 355 acres of land allotted to 903 women members have been registered under joint patta. Furthermore, state interventions released approximately 1,000 acres of land mortgaged to money-lenders by women. In 1972, the National Guidelines on Ceiling on Agricultural Holding were issued by the Conference of Chief Ministers on Land Reforms to encourage the adoption of a uniform definition of family for the purpose of land ceiling legislation.

THE WOMEN EMPOWERMENT COLUMN

Patricia Narayan : The Super Woman

(Written By – Our Correspondent)

We all know that the world is a difficult place to live in. Every day there are new hurdles and challenges thrown at us. On top of that, if you are a woman, you know that history hasn't exactly been on your side. Women, in fact, are seen as 'ahistorical figures' i.e., located outside of history. There are innumerable instances of gender violence, immolation, infanticide and so on which have oppressed women for centuries. In fact, a few months earlier, UN officially recognised India as a place where female genital mutilation is practised.

For every story of struggles and hurdles, there are many instances of bravery and tenacity. Over the years, we have seen many women who have fought back and took it upon themselves to rewrite their story. Here is a look at a few brave stalwarts who have proved that being a woman is a boon, not a bane.

“A woman of substance has the courage to overcome tough times in her life and pursue her goals because she stands up for what she believes in and never gives up on her values and virtues"

Celebrating International Women's Day just for the sake of it should not be the right attitude! Understanding women empowerment is really a simple thing. All you need to do is – liberate the women. Don't tell them what to do and what not to dream, because you will never say that to the men in your life!

In this wake, the story of Patricia Narayan may inspire millions. She is someone who truly defines the above-mentioned quote. Patricia Narayan was the winner of the 2010 FICCI Women Entrepreneur of the Year award. She defied all challenges and surely emerged a winner. She was helpless at a point like anyone of us could have been while battling with a drug addict husband. A failed marriage due to an abusive partner and later moving out of it and then nurturing two kids alone didn't stop her from becoming someone out of the million. Why? Because she dared to dream and had the courage to make that dream a reality. She founded a chain of restaurants and is an exemplary woman in today's date.But as you all know Rome was not built in a day, she also had to walk the thorny paths. Read her life story that is segregated into 7 chapters.

1st Chapter of Struggle:

Like any other young woman, she also dreamt of a Mr. Right who would hold her hand to walk the life together. She forgot that she belongs to a very conservative Christian family and gave her heart to someone belonging to a Hindu Brahmin family. The man was 13 years older to her but as they say, love is blind. They knew that their family would be an obstacle in their way and therefore, they decided to secretly marry in the registrar's office. It was initially decided that after she completes her college education, she would break this news of marriage to her family. But after three months of marriage, her husband was pressurizing her immensely. So, she had to spill the beans and accept the harsh words of her family.

Now, our societal set up doesn't approve of a marriage that is only done in papers, they need a ritualistic one! They married again in Purasaiwalkam Church and started living life. Both their families were still not impressed as it was an anti-culture step!

2nd Chapter of Struggle:

What do you think? Things went all hunky dory after that? No, not at all….Like in the movies, the real story will unfold page by page. Unaccepted by families, they moved into a rented apartment in Anna Nagar, Chennai. She slowly established that her husband has no intentions of going out and earning bread and butter. All he can do is consume drugs and alcohol and at the best beat up his wife. Facing all these adversities, she gave birth to two kids over a period of time. A point came when there was no roof, no food, and no money at all. Her father never forgave her for taking this drastic step in life but gave refuge to his daughter, son-in-law, and his grandchildren.

3rd Chapter of Struggle:

She borrowed some 100 rupees from her mom and started making pickles, squashes, and jams. Her mother took them to her office and everything that was carried used to be sold in a day. This was a boost for her. She used to invest almost all the earnings into making more squashes, jams, and pickles.

4th Chapter of Struggle:

Opportunity comes to those who have the courage to try. One of her father's friend ran a school for handicapped children. He was giving out free mobile carts to people who would employ at least two handicapped people. Patricia lapped up this opportunity. She had to train two handicapped kids how to make coffee and serve to the customers. She stalled her mobile cart at Anna Square on the Marina Beach where a crowd used to gather in the evening. In those days (1982), carts like these sold only tea and cigarettes. But this is where Patricia was different. She ran her creative head and provided the customers with fresh juice, coffee, tea, cutlets. Bhaji, cutlets, and samosa.

She sold only one cup of coffee on Day 1 and earned only 50 paisa which disheartened her. God was still taking her test. The next day saw a humungous rise as she earned INR. 600-700 from her delicacies. Patricia Narayan continued this cart business from 1982 to 2003. She struggled every day from 3 P.M. to 11 P.M. and sometimes from 5 A.M. to 9 A.M. also. That's how she was preparing for a bigger future.

5th Chapter of Struggle:

Another opportunity came to her when the Chairman of the Slum Clearance Board saw this hard working lady. He offered her to run the canteen at their office with a proper kitchen and setup. She grabbed this one too. She prepared idlis and went to the beach to serve from 5 A.M. to 9 A.M. and then went to the canteen to cook there. Then she returned to her cart and stayed there till 11 P.M. Her monthly income now turned around to be INR. 20,000 and she had hired a few employees also. Now there was another offer from Bank of Madurai canteen and she had to leave cooking for the Slum Clearance Board.

6th Chapter of Struggle:

One day out of a normal fight with her husband, she went away and boarded a bus and went till the last stop. The last stop was National Port Management Training School ran by the Central government. She went inside and met the administrator and bluffed that she heard they are looking for a caterer. She got a contract of cooking and serving to 700 students. The income of her first week was INR. 80,000 and that soon rose up to 1 lakh/week.

7th Chapter of Struggle:

In the year 1998, she got an offer of partnership in one of the units of the Sangeetha Restaurant groups. And just when life was in controlled and sorted, another tragedy shattered her completely. Her daughter Sandeepha and her son-in-law died in a road accident. Her daughter and son-in-law had just married a month ago and life stopped in one thrash! What was inhumane was the fact that the ambulance denied carrying the dead bodies. Someone came forward and carried the dead bodies in the boot of a car and when Patricia saw her little baby's body come out of a boot of a car, she broke into pieces. No mother should ever be subjected to such a view of her child. She took some time off from work to gather her sanity and confidence.

Her son took the charge now and built a restaurant in the year 2006 and named it Sandeepha. She recovered from that shock and came back to where she belonged. But she didn't forget what she lost. She bought an ambulance and kept it where her daughter faced the deadly accident – Acharapakkam. It helps victims of the road accident to be taken to the hospital whether dead or alive.

There has been no looking back since then. The lady who was beaten up by an addict husband, made a refuge in her father's home, sold one cup of coffee for 50 paisa once, and now after a long struggle of 30 years, owns a chain of 14 restaurants. She earns 2 lakh/day and has 200 employees working under her. From cycle rickshaws to luxury cars – this is a life worth a salute!

What Do We Learn from Her Story?

Never lose self-confidence.

Always remain loyal to what you know.

Struggle keeps you grounded to handle success, so, never complain when you are facing any struggle.

Never feel depressed about failure because nothing is permanent, not even success.

Pain is inexorable and that's why you should just move on.

Never compromise on quality.

One doesn't need to be highly educated to be successful. One requires a dream, ambition, focus, perseverance, and skill.

These 7 chapters and lessons are enough to fire the engine of millions of women who want to shine. 7 is often called the number of perfection. Her story is a perfect example of perfection! Share this story with others and let that dream not die.

THE CINE EXPRESS COLUMN

Tom Cruise : One of The Finest Actor of The World

Thomas Cruise Mapother IV (born July 3, 1962) is an American actor and producer. One of the world's highest-paid actors, he has received various accolades throughout his career, including three Golden Globe Awards, in addition to nominations for a British Academy Film Award and three Academy Awards. His films have grossed over $4 billion in North America and over $10.1 billion worldwide, making him one of the highest-grossing box office stars of all time.

Cruise began acting in the early 1980s and made his breakthrough with leading roles in the comedy film Risky Business (1983) and action drama film Top Gun (1986). Critical acclaim came with his roles in the drama films The Color of Money (1986), Rain Man (1988), and Born on the Fourth of July (1989). For his portrayal of Ron Kovic in the latter, he won a –Golden Globe Award and received a nomination for the Academy Award for Best Actor. As a leading Hollywood star in the 1990s, he starred in several commercially successful films, including the drama A Few Good Men (1992), the thriller The Firm (1993), the horror film Interview with the Vampire (1994), and the romance Jerry Maguire (1996). For his role in the latter, he won a –Golden Globe Award for Best Actor and received his second Academy Award nomination.

Cruise's performance as a motivational speaker in the drama film Magnolia (1999) earned him another –Golden Globe Award and a nomination for the Academy Award for Best Supporting Actor. As an action star, he has played Ethan Hunt in all six of the Mission: Impossiblefilms from 1996 to 2018. He also starred in science fiction and action films, including Vanilla Sky (2001), Minority Report (2002), The Last Samurai (2003), Collateral (2004), War of the Worlds (2005), Knight and Day (2010), Jack Reacher (2012), Oblivion (2013), Edge of Tomorrow (2014), and The Mummy (2017).

Cruise has been married to actresses Mimi Rogers, Nicole Kidman, and Katie Holmes. He has three children, two of whom were adopted during his marriage to Kidman and the other of whom is a biological daughter he had with Holmes. Cruise is an outspoken advocate for the Church of Scientology and its associated social programs, which he credits with helping him overcome dyslexia. In the 2000s, he sparked controversy with his Church-affiliated criticisms of psychiatry and anti-depressant drugs, his efforts to promote Scientology as a religion in Europe, and a leaked video interview of him promoting Scientology.

EARLY LIFE AND EDUCATION

Cruise was born on July 3, 1962, in Syracuse, New York, to electrical engineer Thomas Cruise Mapother III (1934–1984) and special education teacher Mary Lee (née

Pfeiffer; 1936–2017. His parents were both from Louisville, Kentucky, and had English, German, and Irish ancestry. Cruise has three sisters named Lee Anne, Marian, and Cass. One of his cousins, William Mapother, is also an actor who has appeared alongside Cruise in five films. Cruise grew up in near poverty and had a Catholic upbringing. He later described his father as "a merchant of chaos", a "bully", and a "coward" who beat his children. He elaborated, "[My father] was the kind of person where, if something goes wrong, they kick you. It was a great lesson in my life—how he'd lull you in, make you feel safe and then, bang! For me, it was like, 'There's something wrong with this guy. Don't trust him. Be careful around him.'"

Cruise spent part of his childhood in Canada. When his father took a job as a defense consultant with the Canadian Armed Forces, his family moved in late 1971 to Beacon Hill, Ottawa. He attended the new Robert Hopkins Public School for his fourth and fifth grade education. He first became involved in drama in fourth grade, under the tutelage of drama teacher George Steinburg. He and six other boys put on an improvised play to music called IT at the Carleton Elementary School drama festival. Drama organizer Val Wright, who was in the audience, later said that "the movement and improvisation were excellent ... it was a classic ensemble piece". In sixth grade, Cruise went to Henry Munro Middle School in Ottawa. That year, his mother left his father, taking Cruise and his sisters back to the United States. In 1978, she

(Written By - Our Correspondent)

married Jack South. Cruise's father died of cancer in 1984. Cruise briefly took a Catholic Church scholarship and attended the St. Francis Seminary in Cincinnati, Ohio; he aspired to become a Franciscan priest before being expelled from the seminary for drinking and becoming interested in acting. In total, he attended 15 schools in 14 years. In his senior year of high school, he played football for the varsity team as a linebacker, but was cut from the squad after getting caught drinking beer before a game. He went on to star in the school's production of Guys and Dolls. In 1980, he graduated from Glen Ridge High School in Glen Ridge, New Jersey.

CAREER

At age 18, with the blessing of his mother and stepfather, Cruise moved to New York City to pursue an acting career. After working as a busboy in New York, he went to Los Angeles to try out for television roles. He signed with CAA and began acting in films. He first appeared in a bit part in the 1981 film Endless Love, followed by a major supporting role as a crazed military academy student in Taps later that year. In 1983, Cruise was part of the ensemble cast of The Outsiders. That same year he appeared in All the Right Moves and Risky Business, which has been described as "A Generation X classic, and a career maker for Tom Cruise". He also played the male lead in the Ridley Scott film Legend, released in 1985. By 1986's Top Gun, his status as a superstar had been cemented.

Cruise followed up Top Gun with The Color of Money, which came out the same year, and which paired him with Paul Newman. 1988 saw him star in Cocktail, which earned him a nomination for the Razzie Award for Worst Actor. Later that year he starred with Dustin Hoffman in Rain Man, which won the Academy Award for Best Film and Cruise the Kansas City Film Critics Circle Award for Best Supporting Actor. Cruise portrayed real-life paralyzed Vietnam War veteran Ron Kovic in 1989's Born on the Fourth of July, which earned him a Golden Globe Award for Best Actor - Motion Picture Drama, the Chicago Film Critics Association Award for Best Actor, the People's Choice Award for Favorite Motion Picture Actor, a nomination for BAFTA Award for Best Actor in a Leading Role, and Cruise's first Best Actor Academy Award nomination.

Cruise's next films were Days of Thunder (1990) and Far and Away (1992), both of which co-starred then-wife Nicole Kidman as his love interest, followed by the legal thriller The Firm, which was a critical and commercial success. In 1994, Cruise starred along with Brad Pitt, Antonio Banderas and Christian Slater in Neil Jordan's Interview with the Vampire, a gothic drama/horror film that was based on Anne Rice's best-selling novel. The film was well-received, although Rice was initially quite outspoken in her criticism of Cruise having been cast in the film, as Julian Sands was her first choice. Upon seeing the film, however, she paid $7,740 for a two-page ad in Daily Variety praising his performance and apologizing for her previous doubts about him.[24]

In 1996, Cruise appeared as superspy Ethan Hunt in the reboot of Mission: Impossible, which he produced. It was a box office success, although it received criticism regarding the Jim Phelps character being a villain despite being a protagonist of the original television series.

In 1996, he took on the title role in Jerry Maguire, for which he earned a Golden Globe and his second nomination for an Academy Award. In 1999, Cruise costarred with Kidman in the erotic Stanley Kubrick film Eyes Wide Shut, and took a rare supporting role, as a motivational speaker, Frank T.J. Mackey, in Magnolia, for which he received another –Golden Globe and nomination for an Academy Award.

In 2000, Cruise returned as

Ethan Hunt in the second installment of the Mission Impossible films, Mission: Impossible 2. The film was helmed by Hong Kong director John Woo and branded with his gun fu style, and continued the series' blockbuster success at the box office, taking in almost $547M in worldwide figures. Like its predecessor, it was the highest-grossing film of the year, and had a mixed critical reception. Cruise received an MTV Movie Award for Best Male Performance for this film.

His next five films were major critical and commercial successes. The following year Cruise starred in the romantic thriller Vanilla Sky (2001) with Cameron Diaz and Penélope Cruz. In 2002, Cruise starred in the dystopian science fiction action film Minority Report which was directed by Steven Spielberg and based on the science fiction short story by Philip K. Dick.

In 2003, he starred in Edward Zwick's period action drama The Last Samurai, for which he received a Golden Globe nomination for best actor. In 2004, Cruise received critical acclaim for his performance as Vincent in Collateral, directed by Michael Mann. In 2005, Cruise worked again with Steven Spielberg in War of the Worlds, a loose adaptation of the H. G. Wells novel of the same name, which became the fourth highest-grossing film of the year with US$591.4 million worldwide. Also in 2005, he won the People's Choice Award for Favorite Male Movie Star and the MTV Generation Award. Cruise was nominated for seven Saturn Awards between 2002 and 2009, winning once. Nine of the ten films he starred in during the decade made over $100 million at the box office.

In May 2021, Cruise protested against the Hollywood Foreign Press Association (HFPA) by returning all three of his Golden Globe Awards in light of controversy surrounding the HFPA, particularly its lack of diversity, specifically no black members, and ethical questions related to financial benefits to some of its members.

In November 2006, Cruise and Paula Wagner announced that they had taken over the film studio United Artists. Cruise acts as a producer and star in films for United Artists, while Wagner serves as UA's chief executive.

Production began in 2007 of Valkyrie, a thriller based on the July 20, 1944, assassination attempt against Adolf Hitler. The film was acquired in March 2007 by United Artists. On March 21, 2007, Cruise signed to play Claus von Stauffenberg, the protagonist. This project marked the second production to be greenlighted since Cruise and Wagner took control of United Artists. The first was its inaugural film, Lions for Lambs, directed by Robert Redford and starring Redford, Meryl Streep and Cruise. Lambs was released on November 9, 2007, opening to unimpressive box office revenue and critical reception.

In August 2008, Wagner stepped down from her position at United Artists; she retains her stake in UA, which combined with Cruise's share amounts to 30 percent of the studio.

HEALTH AND FAMILY WELFARE COLUMN

YOGA VS GYM – WHY YOGA IS BETTER THAN GYM

(Written By – Sonal Agrawal, Source – elate-wellbeing.com)

Yoga is said to be the antiquated art for physical and psychological wellness. Whereas, the gym focuses more on physical exercise and weight reduction. Individuals once in a while get confused with respect to which one is better: yoga or gym?

* **Yoga benefits our body internally & externally:**

The bending, extending and folding of yoga practice is beneficial for the stomach related problems, the circulatory system, the lymph system and many more body systems. It's an extraordinary method to detox the body and can enhance your cardiovascular system. And this while creating more firm muscles. Whereas gym is centred just around reinforcing muscles and boosting cardio.

Not only this yoga reduces aches & pains from our body. Gym exercises build pains in many areas of the body. According to Elate Wellbeing experts yoga gradually extends muscles and opens the vitality channels of the body. The expanded adaptability keeps muscles and joints lubricated & healthy. Weights and treadmill can cause strain which increases soreness and wounds.

* **Yoga brings calmness & reduces stress:**

Going to the gym can be very upsetting, with all the strain to burn body fat and build more muscle. Individuals who do yoga consistently often report they live peaceful lives. More often than not, individuals really resort to yoga exclusively for its astounding ability to reduce stress. Yoga involves meditation which brings down the stress level of the body, leaving you fresh and rejuvenated. Yoga considered to be good for mental health. Meditation is a series of powerful guided meditation practices to enhance your creativity, productivity, focus, and overall well-being. Meditation programme helps you to clear the mind from the worries of the day. by practising daily, stressful circumstances can be managed all the more effectively and overall feelings of anxiety decline.

* **Yoga can be practiced by everyone**

Unlike to lifting loads or running on the treadmill for considerable long hours, yoga can be as troublesome or as simple as you need it to be. Everybody can do yoga, independent of their age or health level. It doesn't make a difference where you do it and you can discover a style that suits you. Indeed, yoga is even useful for youngsters and teenagers and assists with their confidence. Not only this, gyms are not senior-friendly as there are many heavy exercises which are impossible by everybody. This can be one reason why individuals of all age pick yoga over the gym.

* **Weight Loss – Yoga vs Gym**

Your body can without much of a stretch end up solid and toned through yoga by utilizing your body weight as a base. Yoga decreases weight gradually however once the weight is reduced it can remain for an extended stretch of time regardless of whether you suspend practising yoga. Whereas gym uses additional weights to reinforce your body which at first reduces weight however you tend to gain very easily one you leave the gym.

Wellbeing nutrition experts believe that along with yoga it is very important to keep a check on your nutrition intake. Nutrition experts specialise in creating healthy diet plans which are good for both your body and mind.

To conclude, yoga isn't the end all be all, yet it is really astonishing. When you figure out how to connect your mind and body through your breath, you move gracefully. Yoga is something you can practice for the entire life. Heading off to the gym can feel like a task, yoga will dependably feel like you're giving yourself a treat.

A Brief History of Vaccination

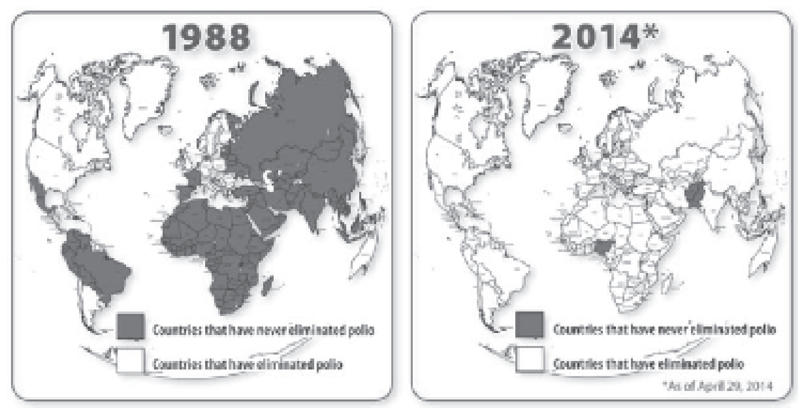
(Written By – Our Correspondent)

The practice of immunisation dates back hundreds of years. Buddhist monks drank snake venom to confer immunity to snake bite and variolation (smearing of a skin tear with cowpox to confer immunity to smallpox) was practiced in 17th century China. Edward Jenner is considered the founder of vaccinology in the West in 1796, after he inoculated a 13 year-old-boy with vaccinia virus (cowpox), and demonstrated immunity to smallpox. In 1798, the first smallpox vaccine was developed. Over the 18th and 19th centuries, systematic implementation of mass smallpox immunisation culminated in its global eradication in 1979.

Louis Pasteur's experiments spearheaded the development of live attenuated cholera vaccine and inactivated anthrax vaccine in humans (1897 and 1904, respectively). Plague vaccine was also invented in the late 19th Century. Between 1890 and 1950, bacterial vaccine development proliferated, including the Bacillis-Calmette-Guerin (BCG) vaccination, which is still in use today.

In 1923, Alexander Glenny perfected a method to inactivate tetanus toxin with formaldehyde. The same method was used to develop a vaccine against diphtheria in 1926. Pertussis vaccine development took considerably longer, with a whole cell vaccine first licensed for use in the US in 1948.

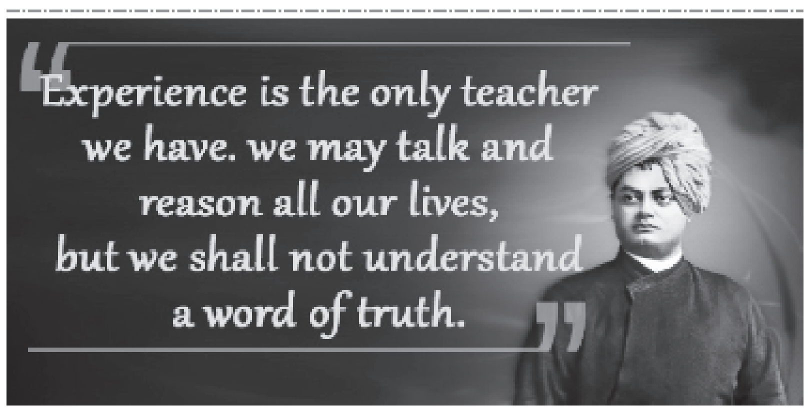
Viral tissue culture methods developed from 1950-1985, and led to the advent of the Salk (inactivated) polio vaccine and the Sabin (live attenuated oral) polio vaccine. Mass polio immunisation has now eradicated the disease from many regions around the world. Attenuated strains of measles, mumps and rubella were developed for inclusion in vaccines. Measles is currently the next possible target for elimination via vaccination.



Despite the evidence of health gains from immunisation programmes there has always been resistance to vaccines in some groups. The late 1970s and 1980s marked a period of increasing litigation and decreased profitability for vaccine manufacture, which led to a decline in the number of companies producing vaccines. The decline was arrested in part by the implementation of the National Vaccine Injury Compensation programme in the US in 1986. The legacy of this era lives on to the present day in supply crises and continued media efforts by a growing vociferous anti-vaccination lobby.

The past two decades have seen the application of molecular genetics and its increased insights into immunology, microbiology and genomics applied to vaccinology. Current successes include the development of recombinant hepatitis B vaccines, the less reactogenic acellular pertussis vaccine, and new techniques for seasonal influenza vaccine manufacture.

Molecular genetics sets the scene for a bright future for vaccinology, including the development of new vaccine delivery systems (e.g. DNA vaccines, viral vectors, plant vaccines and topical formulations), new adjuvants, the development of more effective tuberculosis vaccines, and vaccines against cytomegalovirus (CMV), herpes simplex virus (HSV), respiratory syncytial virus (RSV), staphylococcal disease, streptococcal disease, pandemic influenza, shigella, HIV and schistosomiasis among others. Therapeutic vaccines may also soon be available for allergies, autoimmune diseases and addictions.



SCIENCE & TECHNOLOGY COLUMN

Some Eminent Indian Scientists

(Written By – Our Correspondent)

In independent India, science and technology have been a driving force behind the pursuit of not only economic gains but also ethics, education, justice, aesthetics, and an overall improvement in the quality of life of Indian citizens. To celebrate the contribution of science and scientists to India's freedom and progress, the Illustrated Weekly published profiles of eminent scientists at various times between August 1960 and July 1965. In the book titled Some Eminent Indian Scientists published by the Publications Division, Ministry of Information and Broadcasting, Government of India author Jagjit Singh has sought to recreate some of the profiles with the intent of showing how Indians from various parts of the sub continent contributed to the stream of modern scientific thought and to show that the contributions made can bear comparison with those made anywhere else. Below are excerpts of the book.

C.V. RAMAN

The importance of Raman effect springs from the fact that the associated colour shift in an incident beam of light is a measure of the energy lost by the incoming light photons. But as the loss of light photons is the gain of molecules with which they have had a close brush or collision, it also provides a measure of the increase of internal energy gained by the molecules. A study of the Raman effect thus makes it possible to map out the levels of possible energy gains of the molecules and atoms of the substance, from which it is but a step to infer the details of its molecular and atomic structure. In other words, here is a technique for exploring the interiors of molecules and atoms. Such an exploration was possible even before Chandrasekhara Venkata Raman's discovery but it required recourse to a process called infra-red spectroscopy whose employment presented great experimental difficulties and risks of error on account of its dependence on measurements of invisible infra-red rays by their heat effect. By substituting measurement of the colour modifications of visible rays, the alternative Raman spectroscopy provides a superbly easy experimental technique. This is why the Raman instruments are now extremely useful tools of the physico-chemical workshop and an essential equipment of the research laboratories of all progressive universities and industries. Because of their rapid spread the internal structures of tens of thousands of compounds have been investigated by their use.

Homi Jehangir Bhabha

Homi Jehangir Bhabha... hoped to set up his first atomic power station at Tarapur, some 60 miles north of Bombay, in 1968-within 13 years of the setting-up of the Atomic Energy Establishment at Trombay, of whose massive and multipurpose research effort the Tarapur plant is the first tangible fruit. To be sure, many more of its type as well as other kinds would follow. For Bhabha was busy carrying out the programme that he framed earlier, bearing in view the nature of India's fuel and power reserves, both conventional and atomic, as also the peculiar property of nuclear fuels to regenerate themselves, or to generate new fuels in fissile material.

Far-reaching as was Bhabha's dream of atomic power, it had in its upper fringe an as-yet-faintlyperceived visionary gleam which could, in due time, have illumined the way out of the impasses of atomic power. Bhabha had already foreseen two of them. First, he realised that even a superabundance of thorium deposits cannot make our power reserves inexhaustible, although they do increase them very considerably. Secondly, he also knew that, if all the power needs of our economy when in full industrial flight were to be derived from atomic energy, as it must, the problem of disposal of the radioactive wastes of the fission process might well be very expensive. For, the amount of such radio active fission products would equal the fallout from the explosion in our midst of some half a million atomic bombs per annum. The only way out of both these nightmares of ultimate exhaustion of fuel sources and disposal of wastes is the possibility of putting sunshine, as it were, on tap by making miniature suns here on earth in our midst. Such a miniaturisation programme is now by no means a mere fantasy.

Unfortunately, he did not live (he passed away in an air crash on January 24, 1966) to see the commissioning of even his fire atomic power plant at Tarapur he had laboured so hard to build. Though foiled by untimely death, he will still be remembered as the chief architect of our atomic energy pillar that bids fair to be, in increasing measure, the mainstay of world economy, including ours, in the future.

SATYENDRA NATH BOSE

S.N. Bose is the only physicist whose name is indissolubly linked with Einstein in all the textbooks of physics. This is because he hit on a brilliant artifice whose value Einstein immediately recognised and proclaimed to the scientific world with all the prestige of his great name. In retrospect, it is now clear that even Einstein could not foresee the full power and applicational range of Bose's idea. For Bose's work, along with its subsequent development by Fermi, provides the basis for dividing all the elementary particles of the newer nuclear physics into two neat categoriesthe bosons after Bose and the fermions after Fermi.

If Bose preceded Einstein in his discovery of the 'new statistics', he has, in subsequent years, followed him in his researches on what is known as the unified field theory. This theory is the culmination of one of the two grand themes prominent in the history of science since antiquity. There are at bottom only two because matter, according to an ancient well-understood distinction, can exist in two forms-the continuous, like water in a stream, or the discrete, like the pebbles on its banks.

….this experimental ingenuity of Bose is not confined to physics alone. He could be equally at home in a chemical laboratory. In fact, in one of his inspired moments, he hit on an elegant chemical process of tampering with the internal structure of a sulphonamide molecule just to the precise extent of turning it into a useful pharmaceutical compound-now used widely as eye drops. If Bose could take in his stride all this manifold activity, it is because he is a close pack of perspicuity and intellectual power.

S. CHANDRASEKHAR

Henry James once remarked that but for the excessive intellectual vivacity of men like Democritus, Archimedes, Galileo, Newton and other eccentric genii whom the example of these men has inflamed, the common sense ideas derived from our daily life would have lasted us for ever. Dr. Chandrasekhar is certainly one of these 'inflamed' genii. He has shown, contrary to what commonsense may seem to suggest, that stars and atoms are linked by a close ideological bond, so that knowledge of the one is grist to the other.

A case in point is his forecast of the fates of stars, particularly in the last throes of their life, by a study of the behaviour of atoms crushed to smithereens.

One part of Chandrasekhar's vast output of work has been concerned with charting the course that these stellar and galactic flames, once ignited, are destined to follow. He has done so by constructing mathematical models based on modern quantum theory of the atom to simulate the behaviour patterns of real stars through the vicissitudes of their life. For example, he has shown that a star like our own sun cannot continue to shine forever in its present steady state. Sooner or later, a time must come when, with the exhaustion of the supply of nuclear fuel in its core, fundamental structural changes begin to occur deep down in its interior.

Chandrasekhar has shown that, when the core of star becomes degenerate with stripped atomic nuclei and electrons, all tightly packed together, new factors come into play. Their most important effect is that a star loses the power to balance the pressure and gravitational attraction at its periphery by simply adjusting its radius unless the core happens to remain below a certain limiting mass. Chandrasekhar has shown how such a massive star "can know in advance that it faces an eventual debacle long before it can reach the whitedwarf purgatory". As if 'aware' of the handicap that its great bulk entails in its relentless match towards the final purgatorial doom, it begins to strip itself of its excess mass.

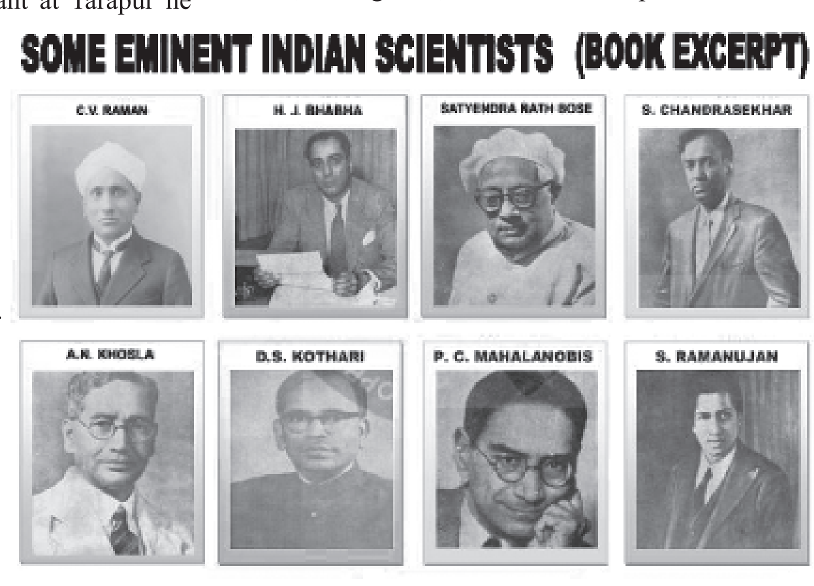
Although research on the internal constitution of stars is a lifetime project, it is only one of the many complex astrophysical problems illumined by Chandrasekhar's scintillating intellect. After completing in 1939 his first major work on this subject, An Introduction to the Study of Stellar Structure-which, incidentally, became a bestseller-he took to another field-the distribution of matter and motion in stellar systems, such as the galaxies like our own Milky Way are.

Surveying the full gamut of Chandrasekhar's research output, one is awed by the depth of his physical acumen, the range of his mathematical vision, and the sweep of his astronomical knowledge, so that it is often difficult to decide whether he is a physicist, a mathematician or an astronomer.

A.N. KHOSLA

Whitehead once remarked that "religion is what one does in his solitude". If that be true, [Ajudhia Nath] Khosla's religion is applied hydraulics. It is a branch of engineering that is literally vital; because it is concerned with a basic problem of life, namely, conservation and utilisation of our exceedingly scarce water resources.

Khosla became so obsessed with this calamitous waste of water some forty years ago that its prevention became the leitmotif of all his subsequent technical work. …he was able to produce by a remarkable blend of deduction and empiricism a far more rational basis for designing weirs and dams than was available even two decades after his graduation from Roorkee University where he first learnt his engineering. Having created his new theory, Khosla himself led the movement for its adoption in designing weirs and dams. To this end he produced a wide variety of standard forms which could be used by field engineers to suit the particular problem they faced by merely referring to tables, charts and nomograms. The whole research, including the preparation of prefabricated formulae and tables for instant use, took him nine years to complete. The results of his prodigious labours are embodied in his classic book entitled Design of Weirs on Permeable Foundations first published in 1936. This work is all the more remarkable as it was done at a time when computers were unknown and other purely numerical methods of solving complicated differential equations such as Southwell's relaxation techniques had not yet been heard of or even invented.



D.S. KOTHARI

It may surprise some that an astrophysicist like [Daulat Singh] Kothari should have taken to defence science research even in peacetime. For, astronomers and astrophysicists are notoriously pacifist and easily frustrated when required to carry grist to the mill of Mars. If Kothari seems to be the exception that breaks the rule, it is because he understood the need of a newly independent nation to sheetanchor its defence on the latest knowledge of science and technology. He was further fortified by the knowledge that, in our case at any rate, 'defence' would by no semantic confusion of which Orwell spoke, be allowed to become a camouflage for the conquest and colonisation of weaker neighbours. Lest an unsympathetic critic be inclined to dub such a belief as a naive post-facto rationalisation of a patriotic jingo, I (the author) hasten to remind him that, paradoxical as it may seem, Kothari's own personal masterpiece in defence science research is a work dedicated to the cause of peace.

This work-Nuclear Explosions and Their Effects-which more than any other contribution of the Defence Science Organisation is Kothari's own handiwork-was undertaken at the instance of [Jawaharlal] Nehru, who made the suggestion in the hope that such a study would be of "some use in directing people's mind to the dreadful prospect in the nuclear age and to the dangers of continuing nuclear test explosions". In his book, Kothari takes us beyond the invisible barrier where man's immense journey from remote preCambrian beginnings may come to an abrupt end. By a careful, though naked, direct and unadorned organisation of the objective facts, but without the emotional tone or tint of moral indignation, Kothari conjures vistas of a possible apocalypse so morosely violent and luridly tragic that we are, as if by a traumatic recoil, jerked into sense and sanity. Rarely has anyone made such an effective practical use of so unpractical a discipline as astrophysics as has Kothari in his Nuclear Explosions and Their Effects.

P. C. MAHALANOBIS

If a great scientific movement of the size of putting a country on the statistical world map could be attributed to a single individual, he is unquestionably Mahalanobis. He took to statistics as a sideline some forty five years ago when he was a professor of physics at the Presidency College, Calcutta, and when statistics as a separate discipline was not known anywhere, let alone in India.

Mahalanobis, who had gone to Cambridge in 1913 to study physics and mathematics, returned to India two years later with copies of Karl Pearson's journal Biometrica and Biometric Tables. These publications gave him his first glimpse of the new vistas in statistics that were just beginning to appear. He since opened many of his own. One may perhaps be permitted to hoist him with a well-aimed sampling petard devised according to his own prescription. If we take as our sampling frame any of the internationally recognised modern monographs or textbooks on advanced statistics, we will find in their author index Mahalanobis name linked with at least three major developments. They are: Mahalanobis 'distance', his contributions to the design of experiments, and his theory and practice of large-scale sample surveys.

S. RAMANUJAN

Srinivasa Ramanujan was a pure mathematician of the highest order, who worked on the theory of numbers, a theory which is the queen of mathematics even as mathematics is the queen of the sciences. Ramanujan's game of pure mathematics secured for us prestige in the intellectual circles of England and Europe even before that stormy petrel of Indian politics, Tilak, claimed Swaraj as his birthright. And long before Gandhiji and Nehru stormed the imperialist citadel to win us our independence, Ramanujan, by dint of his mathematical prowess, had captured that intellectual fortress of England, the Royal Society.

THE ART & CULTURE COLUMN

Arunachal Pradesh Culture : Traditions, Craft & Food of Arunachal Pradesh

(Written By – Our Correspondent)

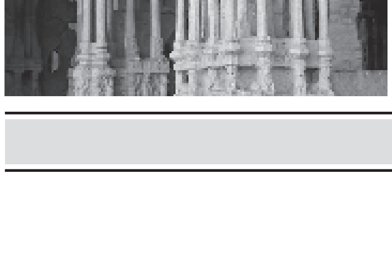
From its exuberant art and culture of multilingual ethnicity, astounding dance forms, mesmerising music, sophisticated heritage, zealous festivities, elegant clothing and delectable cuisine Karnataka has a plethora of historical secrets, interwoven within a rich and varied culture. It is a major tourist attraction with cities like Bangalore, the scenic Coorg, the lesser known hill town of Chikmagalur, and heritage sites like

Hampi, which attract countless people every year. Karnataka offers a little something for everyone, be it a history enthusiast, a nature lover, or someone looking to immerse oneself in its cultural heritage. It is home to various tribes, the unique Siddi community, many Tibetan refugees, the anthropological enigma that is the Kodava community and others, who contribute to its own unique culture.

Art and Culture of Karnataka

Earlier, painting involved not only the act itself but the entire process, from making one's colours to watching as they come to life. Paper, wood, cloth, etc. were some of the materials artists used as a base for their paintings. Brushes weren't made from synthetic materials but were made from the original hair of animals like camels, goat, and squirrel. The Mysuru style of paintings usually are representations of legends, mythical scenes, and the royal family. This style of painting from Karnataka is known for its simplicity and intricate detailing across the country. The artists used a particular gesso paste, consisting of zinc oxide and gum, which formed a protective layer on the painting, which has kept them undamaged even after 150 years.

Karnataka is home to 50 different tribes, each having their traditions and customs. Tribal art is another indigenous art form. Hase Chitra mud painting is an art form emerging from the Shimoga and Karwar



districts and is currently being revived.

Heritage of Karnataka

Once home to the Vijayanagara Empire and four different dynasties that lasted for 300 years, Hampi now is a UNESCO World Heritage Site. The ruins of the Empire can be found in the form of temples, architectural marvels, the famous musical pillars, royal enclosures and scattered monuments. Hampi, housing these ancient ruins doesn't fail to attract abundant tourists every year. The Hazara Ram temple is a major attraction as it is believed to be there since Ram and Krishna's era. The rich history of Hampi is also displayed in the Archaeological Museum located in the town. Another popular attraction is the Mysore Palace. The architectural marvel is a combination of Indo-Saracenic style.

Languages of Karnataka

The diversity of Karnataka isn't just in its art and history but also in religious and linguistic ethnicity. Combined with their long histories, the cultural heritage of the state lies in its language. The Kannadigas envelope most of the state that comprises 30 districts, while Karnataka is also home to Kodavas, Tuluvas, and Konkanis.

Kannada

Kannada is spoken as a native language by about 74% of the people of Karnataka. Kannadigas are the native speakers of Karnataka who form a dominant ethnic group. Being the administrative language of Karnataka, Kannada is considered as a classical language by the recommendations of linguistics experts and the government of India.

Tulu

The native speakers of Tulu called Tuluvas also form a dominant ethnic community of Karnataka. Tuluvas cover most of Dakshina Karnataka, Udupi, Kasargod of Kerala which is often termed as Tulu Nadu. The Tuluvas form 2.38% of the total population of Karnataka.

Konkani

The people who speak Konkani language are widely spread across Uttara Karnataka, Dakshina Karnataka and Udupi. In the region of Karwar taluk, Konkani speaker covers up to 78% of the population where a significant number of people are settled in Sirsi and Belgaum. According to the census of 1991, Konkani speakers are 1.78% of the population of Karnataka.

Kodava

Kodava language is probably one of the unheard languages of Karnataka with just 0.25% of native speakers. The Kodava people are settled in the Kodagu district of Karnataka. Apart from Kodavas, according to the Karnataka Kodava Sahitya Academy, there are 18 other ethnic groups who speak Kodava which includes Iri, Heggade, Banna, Koyava, Kembatti, Kudiya and Meda.

Urdu

The second-largest ethnic group with 9.72% of the total population with a majority of speakers from the Muslim community. Although the Urdu speakers are unevenly distributed in Karnataka, about 43.5 % are bilingual who prefer speaking Kannada rather than Urdu.

Beary or Byari

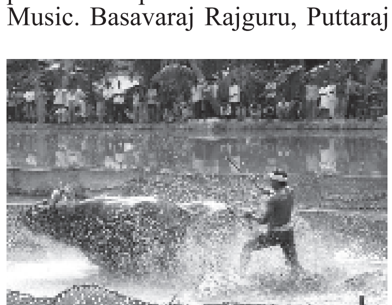
Beary or Byari is spoken by the Muslim communities of Dakshina Kannada and Udipi districts. This language has influences of Malayalam, Arabic and Kannada.

Music of Karnataka

The only state that flourishes with both Hindusthani music from North and Carnatic music from the south is Karnataka.

Hindusthani

The Hindustani musicians of Karnataka have won several awards like the Kalidas Sanman, Padma Vibhusan and Padma Bhusan. Hence, Karnataka has achieved a prominent place in Hindusthani Music. Basavaraj Rajguru, Puttaraj



Gawai, Sawai Gandharva are some famous performers to name a few.

Carnatic

Purandara Dasa is one of the prominent composers in Karnataka who composed close to 75,000-745,000 songs in Kannada and Sanskrit. Owing to his contribution, he is considered as the Father of Carnatic Music. He became a source of inspiration to composers like Tyagaraja. Purandaradasa later laid down a framework to impart the knowledge of Carnatic music.

Dances in Karnataka Culture

Considered a difficult art form, Yakshagana lacks a written script and depends entirely on the artist's ability to be spontaneous, to improvise, to be a good orator and have a sound knowledge of the plot and character. The unique art form of Yakshagana has various elements like dance (Nrithya), makeup (Bannagarike or Mukhavarnike), background singing and direction (Bhagvathike), two forms of drums (Chande Maddale) and conversation (Arthagarike). The art form is 500 years old, and the entire portrayal takes place in refined Kannada, without even a word of any other language. It is an important tradition and also a prevalent art form.

Siddi community's Dammami dance is also another traditional dance form. This dance form derives its name from an instrument Damam, made from leather. Initially, the dance was performed by Siddis post hunting to honour the tribal God Siddhinas. However, as the activity itself is banned, the dance is now performed once a year for the whole night. The performances are done in the Konkani language and depict a story, usually about the hunt or farming activities like ploughing, harvesting, etc.

Festivals of Karnataka

The recent uproar over Tamil Nadu's bull-taming festival of Jallikattu has drawn attention to Karnataka's Buffalo race called Kambala. The annual buffalo race, a two-day festival, is an integral part of the rural community and is considered a sport as well as a tradition. Earlier, the rewards used to be coconuts, but these have been replaced by medals in recent times. The festival can be traced back over 800 years and is celebrated to please Lord Kadri Manjunatha, an incarnation of Lord Shiva. In the last few years, it has received a lot of backlash from organisations concerned about animal cruelty. However, the recent judgement by the Supreme Court has allowed the celebration of this annual festival.

The other main festivals of Karnataka are Ugadi, the Kannada new year, and Mysuru Dasara, or popularly known as Navratri, a ten-day festival in honour of the Hindu goddess Chamundeshwari which can be traced back to 15th century.

Occupation

Nearly half of the workforce in Karnataka is engaged in traditional agriculture and related activities. The remaining people of the community, however, indulge in various public, private sectors and performance arts. The heart of the State, Bangalore is nicknamed as the 'Silicon City' for the booming IT industry.

Wedding Customs in Karnataka

Weddings in Karnataka follow customs similar to Traditional Hindu Weddings. The first ritual happens to be Nandi Puja followed by a fascinating ritual of Kashi Yatra takes place, where the groom pretends to go on a pilgrimage saying that the family doesn't find a bride for him. The groom is appeased by his uncle at the end of the Kashi Yatre and then Dev Karya takes place in front of Lord Ganesha ending the prewedding rituals. The Wedding starts with the Mandap(Mantap) Puja to cleanse the venue followed by the Var Puja and the Dhare ceremony. The most important part of every wedding is the Sapthapadi where the bride and groom walk around in a circle with the holy fire at the centre of it seven times while chanting the Vows of Marriage. The wedding concludes with the groom tieing the Mangalsutra around the bride's neck.

Post-wedding games are the fun part of every wedding where the families and friend from both sides take part actively. After the celebrations and games are the most heart touching moments for the festivities when the bride has to say bye to her parents and tears rolling down the cheeks is a normal scenario in these moments. The bride is welcomed to the groom's house with the Griha Pravesha ritual calling an end to the ceremonies and marking the start of a happy life together.

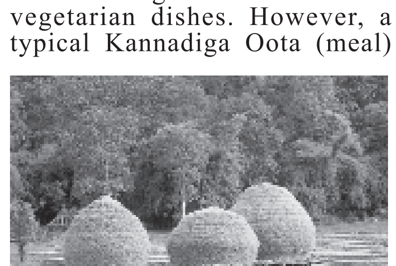
Dressing Culture of Karnataka

In Karnataka, the attires vary from district to district as it is home to various communities. The Kodava people, believed to be the direct descendants of Alexander the Great, have a distinct traditional attire which acts as an immediate differentiator. Ilkal sarees are one of the popular traditional attires of

women in Karnataka. Traditionally worn by women in the rural area, Ilkal sarees have now caught the attention of the entire country. Ilkal sarees are named after a town by the same name in Bagalkot district of Karnataka. These are now sought after by saree lovers across the nation due to the unique process by which they are woven. They are made using a different looping process known as Tope Teni. This 8th-century method is entirely undertaken by the weaver himself, without the use of machines. The sarees are handwoven and are in high demand by the locals during the wedding season.

Food Culture of Karnataka

Karnataka is known for its wide variety of dosas and sambar. The food is rich in flavour and consists of various vegetarian and non-vegetarian dishes. However, a typical Kannadiga Oota (meal)



consists of rice, sambar, pickle, ghee, dessert, and other curry-based dishes and is served on a banana leaf. Other popular dishes include the super light Neer dosa, Bisi Bele Bhaat which is a lot like a khichdi, and chicken curry known as Korri Gassi. Coconut and fruits are a staple element of these dishes. A signature dish of South Karnataka is the kori rotti. It consists of a thin wafer-like rotti made from rice, dipped in chicken curry. This is the traditional dish of the Tuluvas. Mangalorean fish curry is one of the many popular dishes that are an intricate part of Karnataka's cuisine. The gassi is made in redfish or prawn curry or kori roti, another popular dish of Udupi cuisine. Coconut paste is an important element of the dish, and the curry itself is made up of versions of milder curries. Mangalore is a port city; fish is a

staple diet for many people. It has beautiful coasts and streets lined with palm trees and was also a major seaport during the reign of Tipu Sultan.

Karnataka is a fascinating place to visit. Every town or city of Karnataka has something different to offer. This southern state of India has a vast culture and is a great place to visit alone, or with friends or family. It offers variety in its culture, art forms, food, and has such a rich history. It truly showcases India's diversity.

THE CORPORATE & BUSINESS COLUMN

20 Reasons Being an Entrepreneur Rocks

(Written By – Our Correspondent)

Being an entrepreneur can be an exciting and liberating endeavor. Many people have ideas for a business or product, but only a few take the leap and open a new business. While being an entrepreneur is extremely difficult, it has its benefits.

1. "When I quit and started my own business, I realized I could never go back to work for anyone else. I love being in control of my own destiny, choosing the clients I like to work with, and I even enjoy most of the challenges that business brings. I now work with small business owners, who are the backbone of the economy, and I love helping them to grow their businesses in turn." – Alastair McDermott, founder, WebsiteDoctor

2. "I love being an entrepreneur because I am able to set my own schedule around my family life. Being a busy mom of two, I have the flexibility to schedule clients around my children's sports, school schedules and doctor appointments." – Stacy Haynes, CEO and counseling psychologist, Little Hands Family Services
3. "Being an entrepreneur gives you the opportunity to take a calculated risk on a passion." – Francesco Clark, founder, Clark's Botanicals
4. "Entrepreneurship constantly presents new challenges. As you overcome the adversity in your business, it leads to personal growth as well." – Marques Colston, director of new business, Main Squeeze Juice Co.
5. "I love owning my own business because I feel there is always something that I can do to improve. Whether it be writing a new blog post, scheduling social media or reaching out to new organizations, there is always something to keep me busy." – Claire Coder, founder and CEO, Aunt Flow
6. "Being an entrepreneur is awesome for a lot of reasons, but I think the most important and overlooked reason is that it forces a person to develop parts of their personality that make them more well-rounded and a better person." – Ian Ippolito, founder and CEO, Exhedra Solutions
7. "Being an entrepreneur is great because you literally own your destiny. If you want to earn more money, work harder and it happens." – Natalie Bidnick Andreas, digital and content marketing strategist
8. "The best part of being an entrepreneur is the ability to create something from nothing. I get to bring new programs and ideas to my clients and to hardworking professionals every day." – Kristi Daniels McNab, founder, Thrive 9 to 5
9. "Nothing pushes me to work harder and smarter than the responsibility of having my name on the door. Running a business – and being responsible for other people's well-being and income – gives me the motivation and discipline to be the hardest-working version of myself." – Natalie Zfat, social media influencer and co-founder, The Social Co.
10. "I think being an entrepreneur is great because the possibilities are endless. You can be as creative and innovative as you want to be, and the results are the most rewarding." – Anneliece Velasco, owner, Fred Astaire Dance Studio of Smithtown
11. "Being an entrepreneur allows me to create my own definition of success. I do not have to sit at a desk for a specific period of time, turn in X number of projects and hit specific goals, or make it into the Presidents Club to be successful." – Danielle Tate, CEO, MissNowMrs.com
12. "Being an entrepreneur is great because one can respond to opportunity quickly. In my previous corporate life, decision-making could take so long that the opportunity actually vanished before all the parties could get together to make a decision to proceed." – Peter Pierce, founder and CEO, Hamptons Salt Company
13. "The best part of being an entrepreneur is contributing something larger than yourself. Entrepreneurs solve problems and bring a product or service to the world that people need. Sure, you have the opportunity to get paid well, but giving livelihood to others and crafting the world you want to see is way more fulfilling." – Matt Wilson, co-founder, Under30Experiences
14. "My business is almost 100 percent online, so I also have the freedom to live in other countries as I work. It allows me to expand my mind, learn new languages and experience the world in a way few others do." – Jill Loeffler, owner, SFTourismTips.com
15. "One of the things I enjoy the most about being a founder is creating a culture that supports my values." – Jessica Greenwalt, founder, Pixelkeet
16. "At the end of the day, the best part of being an entrepreneur is that it forces me to become a better me. I am forced to learn, change, adapt, get tough and innovate, and since no one in the world could be harder on me than me, I will continue to improve." – William Kehler, founder, Manhattan Moonshine
17. "Being an entrepreneur is greatest when it fulfills that inner desire to prove yourself right. It's the kind of satisfaction that only comes when you are growing at a remarkable pace and you have the gears in place to make it work right." – Cody Miles, creative director, Brandcave
18. "Being an entrepreneur has allowed me to create a career that didn't even exist before I made it up." – Lisa Spector, co-founder, iCalmPet
19. "Since starting my brand a few months ago, the best thing I must admit about being an entrepreneur is the social joy that I get to meet and converse with so many great, take-no-bullcrap, powerful women." – Crystal Etienne, founder and CEO, PantyProp
20. "What I like best is that I feel like I'm actually doing something to make a difference. I'm really building something, really arranging a thing, rather than just pushing papers [and] digital files around for someone else." – Duke York, co-founder and director of finances, Punto Space.

What Is Experimental Marketing ?

(Written By – Our Correspondent)

Traditional marketing is dead, at least, in the most traditional sense. A billboard with a picture of your product next to smiling faces just doesn't cut it anymore. Consumers now fast-forward through commercials, have ad blockers on their computers, and are more likely than ever to opt for commercial-free streaming services over live TV.

So what's an advertiser to do?

It may be time for your business to change directions and look to experiential marketing, which focuses on connecting consumers with a positive experience associated with a brand, rather than directly with a product.

What is experiential marketing?

Experiential marketing, also called engagement marketing, is a marketing strategy that directly engages consumers and encourages them to participate in a brand experience.

"Experiential marketing is all about creating a lasting impression on consumers that they want to share with others, and that ultimately leads to brand loyalty," said Katherine Rowland, digital marketing executive at Your Parking Space.

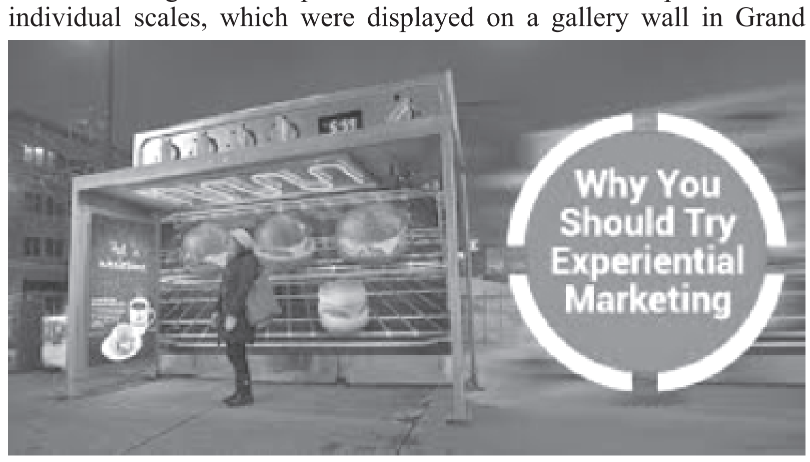
In traditional marketing, consumers are regarded as passive receivers of a company's message. In experiential marketing, a brand involves the consumer directly and often offers a window into the evolution of an advertising campaign. This allows a business to forge a relationship with the consumer by allowing them to both be a part of and see the process of a campaign from beginning to end.

Why is it so effective?

"[Experiential marketing] is so effective because we are emotional beings," said Esther Sauri, marketing professional at Linki Law. "When a brand connects with us in an emotional way, we not only buy it, [but we become] loyal customers."

By involving your customers with the story, they feel connected rather than sold to, and this is a significant difference in how they see your brand.

Take, for example, LeanCuisine's #WeighThis campaign. Women were invited to "weigh in" about something important about themselves, other than their weight. The responses were then collected and painted onto individual scales, which were displayed on a gallery wall in Grand



Central Terminal. Responses ranged from "I care for 200 homeless children each day" to "I am back at college at 55 years old."

The brand then created a promo video that spoke to women about what they wrote and why.

The important aspect of Lean Cuisine's campaign was that at no time was anyone offered a Lean Cuisine product. The display was clearly branded with the company's Twitter handle and the #Weigh This hashtag, but that was it - Lean Cuisine depended on the gallery wall itself to draw people in and created an interactive experience around the message that women are more than a number on the scale. It worked, too – the campaign reached more than 204 million impressions.

What to avoid

Experiential marketing can be a goldmine if leveraged correctly and a landmine if not. Many companies will attempt experiential marketing for the sake of it, knowing that it's a trendy and high-engagement practice, but without proper research and preparation, a campaign can very easily blow up in your face.

"The biggest pitfall in experiential marketing is to make the experience too salesy," said David Jacobson, founder and CEO of Triv Works. "Attendees don't want to feel like they're at a sales pitch. Make it too salesy, and you'll turn them off, or worse, they'll share that they had a negative experience."

Companies should try to create an experience that embodies their values, or, as Ashley Pontius, print campaign manager at News and Experts put it, "While experiential marketing is [mostly] brand building, focus [on making it] more brand being."

While the advertising world is most certainly moving toward a focus on experiential marketing, companies should think deeply before launching an engagement campaign. Is this right for your business? Can you devote the time, effort and money to doing it right? Do you have a clear goal in mind? If so, an experiential marketing campaign can launch your business with positive interactions and a loyal fan base.

THE GENERAL KNOWLEDGE COLUMN

Current Affairs

National News

1. MoWCD launches 'Stree Manoraksha' Project

· **The Ministry of Women and Child Development (MoWCD)** and **NIMHANS** Bengaluru launched the **'Stree Manoraksha Project'** on Wednesday with the goal of improving women's mental health in India.

* The project would concentrate on increasing the ability of **OSC (One-Stop Center)** off1icials in terms of tools and procedures for dealing with women who come to **One-Stop Centers,** particularly those who have experienced violence and distress, with compassion and care.
* One-Stop Center performed admirably during the COVID time. There are already over **700 One-Stop Centers** operating across the country.
* People who work in these one-stop shops will be taught how to appropriately operate the **Self Defense Shaheed Women Helpline** and counsel them.
* The advanced training programme will be delivered in all of the regional languages that they want to be able to comprehend. **NIMHANS** has also built a website dedicated to this, which contains a wealth of information on training.

States News

2. Rajasthan govt announces 'Camel Protection and Development Policy'

* **Rajasthan,** the state government has announced a **'Camel Protection and Development Policy'** in its **budget 2022-23.** According to the government figures, less than two lakh camels are left in Rajasthan and in the entire country, the number of camels has reduced by 1.5 lakh since 2012.
* There were about 2.5 lakh camels left when counted last in 2019. Camel is the state animal of Rajasthan and their number is continuously decreasing.
* The Rajasthan government had declared the camel as the state animal in 2014. About 85 per cent of the country's camels are found in Rajasthan followed by Gujarat, Haryana, Uttar Pradesh, and Madhya Pradesh.
* **World Camel Day** is observed every year on **22 June** to recognize the importance of camels to the livelihood of a large population.

Important takeaways for all competitive exams:

* Chief Minister of Rajasthan: Ashok Gehlot; Governor: Kalraj Mishra.

Agreements News

3. DST tieup with Intel India to boost AI readiness

* Building AI Readiness among Young Innovators', a program by the **Department of Science and Technology (DST),** Government of India, in partnership with Intel India, was launched by **Dr Jitendra Singh,** Union Minister of State for Science and Technology (I/C).
* The program aims to build digital readiness among the students from classes 6 to 10, enrolled under DST's INSPIRE-Awards **MANAK scheme.**
* The flagship program of DST reaches out to students pan India with an aim to create a culture of creativity and innovative thinking. Intel said its commitment to promoting AI readiness in the country is in synergy with the government's vision of leveraging AI to make India a leader in the field while utilizing the technology to address its socio-economic challenges.
* The program will bring both these together and seek to build an AI-ready generation by empowering the students with the knowledge and skills to leverage AI in an inclusive way.

4. HPCL signed MoU with Solar Energy Corporation of India

* A **Memorandum of Understanding (MoU)** was signed on February 24, 2022 in New Delhi between **Hindustan Petroleum Corporation Limited (HPCL)** and **Solar Energy Corporation of India Limited (SECI)** to accomplish green energy targets and the Government of India's efforts towards a **carbon-neutral economy.**
* The Memorandum of Understanding envisions cooperation and collaboration in the fields of renewable power, electric mobility, and alternative fuels, as well as the development of ESG Projects.
* **HPCL** plans to diversify further in the **RE and Electric Mobility** sectors, as well as pursue the development of ESG projects, in order to meet the Government of India's target to increase the RE capacity and accelerate the adoption of electric mobility in India.

Banking News

5. Union Bank of India and Ambit Finvest tie-up

* **Ambit Finvest** has announced the signing of a co-lending agreement with **Union Bank of India (UBI)** for financing to **Micro, Small and Medium Enterprise (MSME)** customers. Ambit Finvest is the Ambit Group's non-deposit-taking **Non-Banking Financial Company (NBFC)**.
* This collaboration will enable underwriting for businesses in 11 states now served by Ambit Finvest. Ambit Finvest and **Union Bank of India** hope to speed up credit disbursement across multiple geographies with this partnership, according to **Sanjay Dhoka, COO and CFO of Ambit Finvest.**
* **MSMEs** that face higher interest rates or are unable to access banking services would benefit from lower rates of interest, which will translate into cheaper cost of funds, allowing them to deploy capital more effectively in their businesses, according to the company's statement.
* **Lal Singh**, **Union Bank's CGM,** said that the collaboration with **Ambit Finvest Pvt Ltd**. is part of UBI's aim to create synergy between the two organisations, allowing us to better serve the most deserving and underserved enterprises.
* **Lal Singh** also added that the effort is part of **Union Bank's commitment to support MSMEs** by offering tailored financial solutions and speeding MSMEs' growth in order to contribute to the country's economic development
* **Ambit Finvest** will be able to further grow its reach in the **MSME** category as a result of its co-lending agreement with a large organisation like **Union Bank of India**, according to Dhoka.

6. RBI cancelled licence of Sarjeraodada Naik Shirala Sahakari Bank

* **Reserve Bank of India** has cancelled the license of **Sarjeraodada Naik Shirala Sahakari Bank, Sangli, Maharashtra,** as it did not have adequate capital and earning prospects.
* With the cancellation of the licence, Sarjeraodada Naik Shirala Sahakari Bank Ltd has ceased to carry on banking business with effect from the close of business hours on 2 March. The bank is not complying with various sections of the **Banking Regulation Act, 1949.**
* On liquidation, every depositor would be entitled to receive deposit insurance claim amount of his/her deposits up to a monetary ceiling of **Rs 5 lakh** from the **Deposit Insurance and Credit Guarantee Corporation (DICGC).**

Important takeaways for all competitive exams:

* DICGC Chairperson: Michael Patra;
* DICGC Founded: 15 July 1978;
* DICGC Headquarters: Mumbai.

Business News

7. Tata Motors launches 'Anubhav'- showroom on wheels

* **Tata Motors** has launched a mobile showroom (showroom on wheels) named **'Anubhav,'** to target rural customers by increasing their reach in rural areas and providing them with a doorstep car buying experience. Tata Motors will deploy a total of 103 mobile showrooms across the country, to enhance the Tata Motors brand awareness in rural India.
* These mobile showrooms will be operated by dealerships under Tata Motors' supervision and guidance. All the dealerships will define monthly routes for these vans on which they will ply and cover the targeted village or tehsil.
* A total of 103 mobile showrooms are being deployed across the country to enhance the Tata Motors brand awareness in rural India.
* These mobile showrooms will help existing dealerships offer a doorstep sales experience to customers and assist them with information about Tata Motors' products.
* These products include a new forever range of cars and SUVs, accessories, avail finance schemes, book a test drive and evaluate existing cars for exchange.

Important takeaways for all competitive exams:

* Tata Motors Headquarters: Mumbai;
* Tata Motors Founder: J. R. D. Tata;
* Tata Motors Founded: 1945, Mumbai.

Defence News

8. 19th Military Cooperation meet of India & US held in Agra

· The 19th edition of the **India-US Military Cooperation Group (MCG)** meeting was conducted in **Agra, Uttar Pradesh**. The discussion was co-chaired by **Air Marshal BR Krishna**, Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee (CISC), and **Lieutenant General Stephen D Sklenka**, Deputy Commander, US Indo-Pacific Command, represented the US side.

* According to the Defence Ministry, the **India-US military cooperation group** was established to advance defence collaboration between the two nations through regular meetings at the strategic and operational levels between the **Headquarters of the Integrated Defence Staff** and the **US Indo-Pacific Command**.
* The **India-US MCG** is a forum set up to advance defence cooperation between the two nations by frequent strategic and operational consultations involving Headquarters, the **Integrated Defence Staff**, and the **US Indo-Pacific Command**.
* The discussions centred on improving the two countries' ongoing defence engagements and considering new initiatives within the framework of the existing cooperation mechanism.

Ranks and Reports News

9. SDG Index 2021: India ranks 120th position

* **India** has been ranked at **120th position** in the **Sustainable Development Report 2021** or **Sustainable Development Index 2021.** In this Index, countries are ranked by a score out of 100. India has a score of 60.07.
* Last year India's rank was 117. The Index measures the country's total progress towards achieving the 17 Sustainable Development Goals. The Index has been topped by **Finland.**
* **The top 5 countries in this ranking are:** 1- Finland; 2- Sweden; 3- Denmark; 4- Germany; 5- Belgium
* These 17 Sustainable Development Goals were adopted by the UN General Assembly in September 2015 as a part of the 2030 Agenda for Sustainable Development.

Science and Technology News

10. Biodegradable nanoparticle developed by IIT Kanpur

* Researchers at the **Indian Institute of Technology (IIT) Kanpur** have created a **biodegradable nanoparticle** that can be used as an alternative to chemical-based insecticides to protect crops from bacterial and fungal illnesses. **Nanoparticles** would reduce the risk of crop infection while also increasing agricultural productivity.
* **The nanoparticle, dubbed Biodegradable Carbonoid Metabolite (BioDCM),** can be active at low concentrations and be as effective as pesticides while having no detrimental effects on soil or consumer health. It operates quickly because it is administered in bioactive form and can resist high temperatures.
* The nanoparticle was produced in collaboration with **C. Kannan and D. Mishra of ICAR-Indian Institute of Rice Research,** and also with **R Balamurugan and M. Mandal of the Hyderabad University's School of Chemistry.**
* Given the nanoparticle developed by **IIT Kanpur's biodegradable and non-harmful nature,** it is likely to attract a lot of interest from farmers looking to reduce their use of chemicals in farming, particularly pesticides.

Sports News

11. ISSF World Cup: Shri Nivetha, Esha, Ruchita win gold in women's 10m air pistol

* **India's Shri Nivetha, Esha Singh,** and **Ruchita Vinerkar** have won the gold medal in the women's 10m air pistol team event of the **ISSF World Cup in Cairo, Egypt.** With this win, India is leading the medal table with three medals, including two gold and silver.
* Andrea Katharina Heckner, Sandra Reitz and Carina Wimmer of Germany settled for the silver medal. Germany and Italy are joint seconds on the table with one gold, two silver and one bronze medal each. A total of 17 countries have won medals so far.

Summits and Conferences News

12. IIT Madras and NIOT conduct OCEANS 2022 for the first time

* **Indian Institute of Technology (IIT) Madras** and **National Institute of Ocean Technology (NIOT),** Chennai, are jointly conducted **OCEANS 2022 Conference and Exposition,** the bi-annual event for global marine researchers, technologists and engineers, students, and policymakers.
* It is being in India for the first time and coordinated by the Department of Ocean Engineering, IIT Madras, on behalf of the **Institution of Electrical and Electronics Engineering Ocean Engineering Society (IEEE OES) and Marine Technology Society (MTS).** The conference is being held in a hybrid model.
* **'Inspire-Innovate-Sustain'** is the main theme of the conference. The delegates will be sharing their experiences on topics related to climate change, global warming, vagaries of weather, combating coastal erosion, marine pollution and microplastics through nearly 400 presentations.

Important Days

13. National Security Day observed on 04th of March

* In India, **March 4** is celebrated as **National Security Day (Rashtriya Suraksha Diwas)** every year, in the honor of the **Indian Security Forces.**
* The day aims to show gratitude to all the security forces, including policemen, para-military forces, commandos, guards, army officers, and other persons involved in security, who sacrifice their life in maintaining the peace and security of the people of the country.
* Apart from this, National Security Week 2022 is being celebrated from **March 4 to March 10, 2022.**
* **4 March** also marks the day when the **National Security Council (NSC) of India** was established, in **1966** by the Ministry of Labour under the Government of India. The first **National Security Day (NSD) was held in 1972.**

Important takeaways for all competitive exams:

* National Security Council of India Founded: 19 November 1998;
* National Security Council of India head: Ajit Kumar Doval.

14. National Safety Day 2022 Observed on 04th March

* The **National Safety Day (NSD)** is celebrated every year on the **4th of March** to commemorate the foundation of the **National Safety Council (NSC) of India.**
* The day aims to raise public awareness of all safety principles, including road safety, workplace safety, human health safety, and environmental safety.
* The year 2022 marks 51st NSD. Every year, this day is celebrated with a different theme. This year, the National Safety Council of India announced the theme to be **'Nurture young minds - Develop safety culture'.**
* The first National Safety Day was observed in **1972.** The National Safety Council was set up on **4th March 1966** by the Ministry of Labour and Employment, to develop and implement a voluntary routine in the areas of safety, health, and the environment.

Obituaries News

15. Noted film critic, writer Jaiprakash Chouksey passes away

* Film critic, writer **Jaiprakash Chouksey** has passed away due to cardiac arrest at the age of 82 years.
* He has penned scripts and dialogues for several films including 'Shayad' (1979), 'Qatl' (1986) and 'Bodyguard' (2011), and was also involved in writing for television serials. Madhya Pradesh Chief Minister Shivraj Singh Chouhan, state Congress chief Kamal Nath and several other leaders condoled Chouksey's death.

Miscellaneous News

16. Herath Festival celebrated in Jammu and Kashmir

* **Herath or the 'Night of Hara (Shiva)',** generally known as **Maha Shivratri,** is the main festival celebrated by the Kashmiri Pandits across **Jammu and Kashmir (J&K).** The festival marks the marriage anniversary of **Lord Shiva and Goddess Uma (Parvathi).**
* 2022 Herath Festival was celebrated on 28th February 2022. Herath Festival is celebrated on "Trayodashi" or the 13th day of the dark half of the month of Phalguna (Hindu calendar), between February and March.
* The Kashmiri Pandits celebrate the festival by distributing walnuts as a mark of respect to the Hindu deities. The rest of the nation celebrates the Maha Shivratri on Chaturdashi or the 14th of Phalguna.

17. Ujjain creates Guinness Record by Lighting 11.71 Lakh Diyas

* **Ujjain in Madhya Pradesh** has created a **Guinness record** by lighting **11.71 lakh** clay lamps (diyas) in 10 minutes. The diyas were lighted as part of the **'Shiv Jyoti Arpanam Mahotsava'** on the occasion of Mahashivratri.
* With this they broke the earlier record of lighting 9.41 lakh diyas created in Ayodhya, Uttar Pradesh on 03 November 2021. Ujjain is also known as the 'Land of Mahakal'. The certificate was received by Madhya Pradesh chief minister **Shivraj Singh Chouhan.**
* It was a zero-waste programme. The clay from the lamps will be used to prepare idols, while the oil left in the lamps will be offered to gaushalas. The plastic used for the I-cards will be used to make chairs and other items for public gardens.

Important takeaways for all competitive exams:

* Madhya Pradesh Capital: Bhopal;
* Madhya Pradesh Governor: Mangubhai C. Patel;
* Madhya Pradesh Chief Minister: Shivraj Singh Chouhan.

THE EDITORIAL COLUMN

Role of Indian Languages in Science Communication, Popularization & Its Extension

(Written By – N.H Priya Garnaik, Editor, Iya News)

Since time immemorial, language has been an essential element of effective communication. India has been blessed with so many languages and dialects that it makes communication a challenge on the one hand and rich with comprehensive glossary and usage on the other. One size fits all theory thus, does not fit here due to the wide variety of languages. Communication strategies vary from language to language. They vary according to the geography and the number of people that speak a particular language. Why go far? Within Jammu & Kashmir, there are four prominently spoken and written Indian languages - Dogri, Hindi and English in Jammu, whereas it is Kashmiri, Urdu and English in Kashmir. The geographical terrain is hilly and upper reaches of the region remain cut off due to snow for a large part of winters. While these statistics might be challenges for a communicator-on-foot, the variety of these languages adds a lot to the repository of words and their usage. However, with technology, we've seen how several impediments have been overcome with the aid of technology based communication tools during the past two years. Covid or no-Covid, people have admitted technology in their lives to ensure that communication channels remain open. Classroom teaching, group meetings, street plays and many more that required in-person involvement saw a shift to the online medium. Things continued to happen, yet from experts' perspectives, the efficacy of communication was diluted.

Amidst all this, science communication and popularisation were not an exception. Science communicators faced similar issues. To reach every nook and corner of the country, all their in-person activities took a back seat. All those efforts to walk to remote places and demonstrate handson experiments, meet people and interact with them about various science topics could not happen. Like them, everyone waited for things to return to the old normal. Science communicators came together for in-person meetings, seminars, workshops, and hands-on experiment demos whenever the lockdown & travel embargos lifted. While Hindi & English remained the connecting language across the nation, everyone realised that the efficacy of their science outreach efforts could come only through local language as the medium of communication. This is how science communicators started building content, associated products and practically acceptable glossary of words and usage in the local Indian language. A long way to go, indeed!

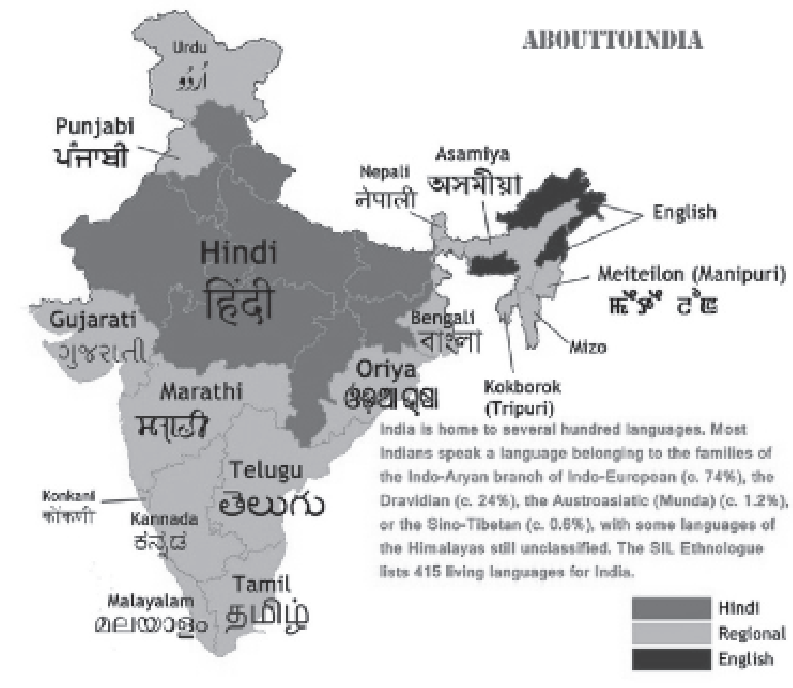
From Kashmir to Kanyakumari and Kachch to Kamrup (throughout the country), there are 22 Indian languages and more than 19,500 dialects. This variety thus provides a large canvas for the science communicators to work upon. This proves the significance of Indian languages in the domain of Science Communication, Popularisation, and its Extension (SCoPE). For this, something perennial for the public to read was required. Periodicals, for that matter, have always been looked upon as an effective vehicle to take the thought to people in a consistent manner. Whether a regular newsletter or a magazine, publication of this kind has always been accepted to supplement a daily newspaper. The shelf life of a periodical is, thus, longer than that of a newspaper. This way, the longevity of effectiveness of communication made through a weekly or fortnightly or monthly magazine maintains a more prolonged impact on the enduser. Having realised this, a number of periodicals have started to come up with the help of local science & technology agencies

During the September 2021 timeframe in Kashmir, Vigyan Prasar (VP), the nation's neutral nodal agency for SCoPE and the Central University of Kashmir (CUK), came together to ink a letter of collaboration to work in the domain of SCoPE-inKashmiri. Thus, the first popular science monthly called Gaash (meaning vision in Kashmiri) came up. Gaash, since its launch, has become very popular in the valley, especially with teachers of Mobile Schools, where teachers of these schools teach students of the nomadic community. VP and CUK also came together to produce the monthly popular science magzine in Urdu called Tajassus (which means curiosity in Urdu). Incidentally, the script of Urdu and Kashmiri are identical. Tajassus has been in print since 2019 and has been published consistently since then.

Vigyan Prasar has recently signed a similar note of collaboration with the Central University of Jammu for bringing out a popular science monthly in Dogri (expected in March 2022) and another one with the Punjab State Council for Science & Technology for a popular science monthly in Punjabi (scheduled from April 2022).

A similar endeavour in Gujarati, with the help of the Gujarat Council for Science & Technology (GUJCOST), is called Jigyasa (which means curiosity in Gujarati). In Marathi, the famous Sathaye College of the University of Bombay with VP produces a popular science magazine called the Vigyan Vishwa (the world of science in Marathi). Moving down south, the Karnataka Science & Technology Academy in Bengaluru has been producing the popular science monthly in Kannada called Kutuhalli (meaning curiosity in Kannada) since 2019.

In Tamil, a similar effort that started in 2019 with the help of Tamil Nadu Science & Technology Centre in Chennai has been continuously producing a monthly magazine called Ariviyal Palagai (meaning the platform for science). The Telegu counterpart produced by the National Institute of Technology in Warangal is Vigyan Vani (voice of science). The collaborative effort for Bangla is made jointly between VP and Jagadis Bose National Science Talent Search Organisation in Kolkata, and it is called Bigyan Katha (story of science). The popular Assamese science monthly is Xandhan (meaning research in Assamese), and Tezpur University produces it. In Maithili, VP, without any local support, has brought out a popular science monthly called Vigyan Ratnakar.



Similar to efforts being made for popular science monthlies in Dogri and Punjabi, VP is working closely with agencies in languages that have been left behind so far - Malayalam, Odia, Nepali, Bhojpuri, Manipuri and Konkani.

Aggregating content, getting it editorially corrected to suit the readers' palate and getting all of this published in print form is a challenging task. The success stories of how people have accepted these monthlies manifest that there has been a void in this domain for a long time.

Besides publishing monthly magazines, SCoPE encompasses many other facets of communication channels. Short science films, popular science books, science literature festivals, science theatre, science festivals & exhibitions, science communication workshops, science film festivals and much more are integral parts of science communication, popularisation and its extension. Thus VP has embarked upon all these programs in a big way with all its local partners on a year-on-year enhanced plan. In Bengali, it has already produced and published more than a dozen books on various topics and plans to achieve a similar number of books in all other Indian languages.

The journey has begun. As citizens, we have our social responsibility to create scientific awareness in society with whatever possible means and methods. This is what we call scientific social responsibility (SSR). To ensure that we accomplish our duty perfectly, it's essential to promote it through our mother tongue or any Indian language that will go a long way and reach the target audience quickly and effectively. It is heartening to see that the Government of India has embarked upon plans to create content in the Indian language at the higher education level. The Madhya Pradesh Government has led to producing course books in Hindi for students pursuing MBBS in the state. This opens up the door and enhances the significance of Indian languages in Science & Technology Communication Popularization and its Extension (SCoPE).

THE GOVERNMENT COLUMN

Budget 2022-23 : Enhancing Infrastructural & Digital Connectivity with Sunrise Opportunities

Budget 2022-23:
Enhancing Infrastructural
&
Digital Connectivity with
Sunrise Opportunities

Union Budget 2022-23 has a significant focus on infrastructure creation as India aims to become a US$ 5 trillion economy by 2026-27. The infra and low-cost housing push has ensured that the Budget delivers on most expectations from the real estate sector. With Rs 1 lakh crore expenditure earmarked towards infrastructure development, real estate in the peripheral and peri-urban area is likely to get a boost coupled with an allocation of Rs 48,000 cr for affordable housing under PMAY (Pradhan Mantri Awas Yojana). The Budget targets to complete 80 lakh houses for identified eligible beneficiaries in urban and rural areas. This would make land in the periphery more accessible and open for future development. It is likely to increase housing sales in the periphery. It will also boost logistic and warehousing activities. The budget pushes for better urban planning in India's cities, focusing on urban sector policies, capacity building, planning, implementation, and governance.

The central government is also to work with the state governments to reduce the required time for all land and construction-related approvals. The government and financial sector regulators will work together to help the middle class and the economically weaker sections gain access to finance for affordable housing. Developers who are building affordable houses will benefit from the affordable housing focus in the Union Budget 2022. Moreover, the Government's focus on developing urban areas will boost employment, thereby raising demand for affordable houses in urban areas. Housing is vital for economic growth as it promotes the development of steel, cement, paint and other industries.

Data centers and energy storage system have been given the infrastructure status to ensure easy financing. Capital investment holds the key to speedy and sustained economic revival and consolidation through its multiplier effect. Capital investment also helps in creating employment opportunities, inducing enhanced demand for manufactured inputs from large industries and MSMEs, services from professionals, and help farmers through better agriinfrastructure.

Private investments require support to rise to their potential and to the needs of the economy. Public investment must continue to take the lead and pump-prime the private investment and demand in 2022-23. The Centre's budgetary capital expenditure increased from Rs 5.5 lakh crore in FY22 to Rs 7.5 lakh crore for FY23. This is a 35.4 percent increase in infra Capex outlay over last year, taking the total sum to nearly Rs 7.5 lakh crore. A massive hike in financial assistance to states for Capex (in interest-free loans) from Rs 15,000 crore in FY22 to Rs 1 lakh crore in FY23 is announced.

Emphasizing the need for Indian "mega cities" to transform into centres of economic growth, tier-2 and tier-3 cities would also have to step up in terms of development. A highlevel committee of urban planners will make recommendations of urban policy, capacity building, planning and governance. In keeping with the emphasis on enhanced urban planning, the modernization of bylaws governing urban planning and central government support for masstransit projects across cities is expected. Five existing academic institutions, would be designated as centres of excellence in urban planning with an endowment fund of Rs 250 crore each. The government's aim to create 6 million new jobs over the next five years will also enable the growth of residential real estate across the country.

The Union Budget has prioritised multimodal connectivity between mass urban transport and rail network. The Finance Minister announced an outlay of Rs 20,000 crore for building a holistic infrastructure in India under the Gati Shakti National Master Plan. The initiative will increase public connectivity within the city and across the region. The PM Gati Shakti National Master Plan was launched to push the engine of growth in the Infrastructure space. It is a massive infrastructure development undertaking for seamless multi-modal connectivity. The National Master Plan is a digital platform that brings 16 ministries, such as Railways, Roadways etc., for seamless connectivity across India.

The PM Gati Shakti National Master Plan encompasses the seven engines of roads, railways, ports, airports, waterways, mass transport and logistic infrastructure for seamless connectivity and movement of people, goods and services. These engines are supported by Energy Transmission, IT and Communication, Bulk Water and Sewerage and Social Infrastructure. The PM Gati Shakti National Master Plan facilitates last-mile infrastructure connectivity, reducing travel time and increasing job opportunities. The Government will expand the National Highways network by 25,000 Km in 2022-23 under the National Master Plan. It will cost the Government Rs 20,000 crore mobilised through innovative financing. The National Master Plan brings in a new Unified Logistics Interface Platform or ULIP to facilitate data exchange between operators across different transport modes. It promotes efficient movement of goods across different modes of transport, cuts logistics costs and encourages just-in-time inventory management to eliminate tedious documentation. Moreover, the plan also facilitates an open-source mobility stack for seamless travel of passengers across India.

The Railways play a crucial role in the National Master Plan. It will develop new products for small farmers and Micro, Medium and Small enterprises or MSMEs. Moreover, it brings a 2,000 km railway network under 'Kavach' to augment safety and capacity. PM Gati Shakti Master Plan for Expressways will be formulated in 2022-23 to facilitate faster movement of people and goods. The National Highways network will be expanded by 25,000 km in 2022-23. Rs 20,000 crore will be mobilized through innovative ways of financing to complement the public resources. As a part of Atmanirbhar Bharat, 2,000 km of network will be brought under Kavach, the indigenous world-class technology for safety and capacity augmentation in 2022-23. Four hundred newgeneration Vande Bharat Trains with better energy efficiency and passenger riding experience will be developed and manufactured during the next three years. One hundred PM Gati Shakti Cargo Terminals for multimodal logistics facilities will be developed during the next three years.

Mass Urban Transport including Connectivity to Railways

Innovative ways of financing and faster implementation will be

(Written By – Our Correspondent)

encouraged for building metro systems of appropriate type at scale. Multimodal connectivity between mass urban transport and railway stations will be facilitated on priority. Design of metro systems, including civil structures, will be re-oriented and standardized for Indian conditions and needs.

The National Master Plan ensures that local businesses benefit from the 'One-Station One-Product concept. Moreover, integrating the railways and postal network promotes the seamless movement of parcels in the country. Developing and manufacturing 400 new-generation Vande Bharat trains will enhance the passenger experience.

Parvatmala: National Ropeways Development Programme

As a preferred ecologically sustainable alternative to conventional roads in difficult hilly areas, National Ropeways Development Programme will be taken up on PPP mode. The aim is to improve connectivity and convenience for commuters, besides promoting tourism. This may also cover congested urban areas, where conventional mass transit system is not feasible. Contracts for 8 ropeway projects for a length of 60 km will be awarded in 2022-23.

The Union Budget has demonstrated the government's strong commitment towards systematic urban growth with a focus on clean tech, sustainable urban living and better governance. The government is expected to build the right balance between large megacities as well as tier-2 and tier-3 cities, while it focuses on creating mass transit systems and encourage EVs, which will help in reducing overall carbon footprint.

Prime Minister's Development Initiative for North East Region (PMDevINE)

A new scheme, Prime Minister's Development Initiative for North East, PMDevINE, will be implemented through the North-Eastern Council. It will fund infrastructure, in the spirit of PM Gati Shakti, and social development projects based on felt needs of the North-East. This will enable livelihood activities for youth and women, filling the gaps in various sectors.

Anytime - Anywhere Post Office Savings

In 2022, 100 per cent of 1.5 lakh post offices will come on the core banking system enabling financial inclusion and access to accounts through 11 net banking, mobile banking, ATMs, and also provide online transfer of funds between post office accounts and bank accounts. This will be helpful, especially for farmers and senior citizens in rural areas, enabling interoperability and financial inclusion.

Digital Banking

In recent years, digital banking, digital payments and fintech innovations have grown at a rapid pace in the country. Government is continuously encouraging these sectors to ensure that the benefits of digital banking reach every nook and corner of the country in a consumer-friendly manner. Taking forward this agenda, and to mark 75 years of our independence, it is proposed to set up 75 Digital Banking Units (DBUs) in 75 districts of the country by Scheduled Commercial Banks.

e-Passport

The issuance of e-Passports using embedded chip and futuristic technology will be rolled out in 2022-23 to enhance convenience for the citizens in their overseas travel.

Urban Planning Support to States

For urban capacity building, support will be provided to the states. Modernization of building byelaws, Town Planning Schemes (TPS), and Transit Oriented Development (TOD) will be implemented. This will facilitate reforms for people to live and work closer to mass transit systems. The Central Government's financial support for mass transit projects and AMRUT scheme will be leveraged for formulation of action plans and their implementation for facilitating TOD and TPS by the states.

Land Records Management

Efficient use of land resources is a strong imperative. States will be encouraged to adopt Unique Land Parcel Identification Number to facilitate IT-based management of records. The facility for transliteration of land records across any of the Schedule VIII languages will also be rolled out. The adoption or linkage with National Generic Document Registration System (NGDRS) with the 'One-Nation OneRegistration Software' will be promoted as an option for uniform process for registration and 'anywhere registration' of deeds & documents.

AVGC Promotion Task Force

The animation, visual effects, gaming, and comic (AVGC) sector offers immense potential to employ youth. An AVGC promotion task force with all stakeholders will be set-up to recommend ways to realize this and build domestic capacity for serving our markets and the global demand.

Telecom Sector

Telecommunication in general, and 5G technology in particular, can enable growth and offer job opportunities. A scheme for design-led manufacturing will be launched to build a strong ecosystem for 5G as part of the Production Linked Incentive Scheme.

Atma Nirbharta in Defence

Our Government is committed to reducing imports and promoting AtmaNirbharta in equipment for the Armed Forces. 68 per cent of the capital procurement budget will be earmarked for domestic industry in 2022-23, up from 58 per cent in 2021-22. 88 Defence R&D will be opened up for industry, startups and academia with 25 per cent of defence R&D budget earmarked. Private industry will be encouraged to take up design and development of military platforms and equipment in collaboration with DRDO and other organizations through SPV model. An independent nodal umbrella body will be set up for meeting wide ranging testing and certification requirements

Solar Power

To facilitate domestic manufacturing for the ambitious goal of 280 GW of installed solar capacity by 2030, an additional allocation of Rs. 19,500 crore for Production Linked Incentive for manufacture of high efficiency modules, with priority to fully integrated manufacturing units from polysilicon to solar PV modules, will be made.

Circular Economy

The Circular Economy transition is expected to help in productivity enhancement as well as creating large opportunities for new businesses and jobs. The action plans for ten sectors such as electronic waste, end-of-life vehicles, used oil waste, and toxic & hazardous industrial waste are ready. The focus now will be on addressing important cross cutting issues of infrastructure, reverse logistics, technology upgradation and integration with informal sector. This will be supported by active public policies covering regulations, extended producers' responsibilities framework and innovation facilitation.

Sunrise Opportunities

Artificial Intelligence, Geospatial Systems and Drones, Semiconductor and its ecosystem, Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems have immense potential to assist sustainable development at scale and modernize the country. They provide employment opportunities for youth, and make Indian industry more efficient and competitive. Supportive policies, light-touch regulations, facilitative actions to build domestic capacities, and promotion of research & development will guide the government's approach. For R&D in these sunrise opportunities, in addition to efforts of collaboration among academia, industry and public institutions, government contribution will be provided. Agriculture and farming sector are to be supported with technology usage such as kisan drones for crop assessments.

Conclusions

The infrastructure status to the data centre industry will help companies in availing easier credit and managing resources as the industry seeks to expand outside top cloud regions. The massive regulatory need for data localization has fuelled the industry's growth leading to investments from top Internet firms like Microsoft and Google along with home-grown giants like the Adani group. This may spur total investment in the Data-center industry in India to touch Rs 70,000-72,000 crore over the next five to ten years.The proportion of Capex in this budget out of total expenditure continues to show a significant increase and the introduction of schemes like PM-DevINE and Parvatmala will bring geographical equity to the expenditure. The government has chosen the path of public investment to nudge in private investment in infrastructure, particularly transportation and communications-to deliver growth. The National Highways, Railways and rural roads get the bulk of the enhanced allocations (Rs. 76,665 crores, Rs. 30,000 crores and Rs. 4,000 crores increases of 133 %, 28 % and 27% respectively). In addition, nearly Rs 1 lakh crores has been reserved for a 50 year interest free loan to be used by the states for infrastructure. The Budget builds a strong foundation for the future with a focus on infrastructure, sustainability and inclusive growth while maintaining fiscal prudence. The Budget reinforces India's commitment to addressing climate change with various initiatives around clean mobility. It is inclusive in its approach by addressing the rural sector, MSMEs and various economically vulnerable sections of society.

THE EMPLOYMENT EXPRESS

Career Opportunities In Drone Sector

(Written By – Nidhi Prasad, Source – employmentnews.gov.in)

The use of Unmanned Aircraft Systems/Unmanned Aerial Vehicles most commonly known as Drones for a variety of applications in military, civil and commercial domains has become common. In India, the military forces have been using drones for a variety of missions including surveillance and reconnaissance, border patrols, tracking enemy movements and to conduct search and rescue missions. In the last few years, use of drones in civil and commercial sectors for a diverse set of applications has gained traction.

The drone space reached its inflection point in 2013 when Amazon announced that it would seek to experiment with drones to make deliveries. Since then, we have seen an explosion in the usage of drones and drone based services in the retail and commercial space. Drones are being explored extensively across an array of industries, including, but not limited to, construction, real estate, ecommerce, agriculture, utilities and energy, financial services, and media and entertainment.

Exploration of commercial drone solutions – catching up with global trends

The drone space in India is catching up with that in other nations and gaining considerable momentum. According to 6 Wresearch, the Indian UAV market is poised to grow at a CAGR (compound annual growth rate) of 18% during 2017–23 in terms of revenue. Although these numbers will continue to be led by the long range UAV segment, medium and mini-UAVs are also poised to register healthy growth. Data provided by the Stockholm International Peace Research Institute (SIPRI) indicates that with 22.5% of the world's UAV imports, India tops the list of drone-importing nations. These are numbers primarily for military purposes, but commercial drones are showing healthy growth as well. A study conducted by BIS Research had predicted that the market for commercial end-use of drones might supersede the military market by 2021, cumulatively hitting approximately US$ 900 million.

While business enterprises have jumped to the opportunity of manufacturing and operating drones, the need for skilled manpower to propel this emergent industry has also grown by leaps and bounds.

TYPES OF JOBS IN DRONE INDUSTRY

Drone Pilot/Remote Operator: If you want to become a drone pilot, you need to get your training from a training centre approved by the Directorate General of Civil Aviation (DGCA). Upon completion of the training and upon submission of required documents, you will be registered as a 'Remote Pilot' with a 'Pilot Identification Number' as well as 'Unmanned Aircraft Operator Permit.' Eligibility: You need to be 18 years of age and have a 10th pass certificate. You will also have to clear a medical examination as specified by the DGCA, and a background check. The maximum age limit for a remote pilot licence for commercial activities is 65 years. No pilot licence is required for operating nano drones and micro drones for noncommercial use. But to operate any other type of drone you need to get a licence and training. Duration: The duration of courses varies according to the types of drones you want to operate. Most drone training programmes are less than two weeks long. To get trained, you do not need to own a drone. The training institutes provide all necessary training kits, including the drone.

Training Institutes: Currently, there are 8 training centres authorised by the DGCA in India from where one can study and get trained in drone technology:

* Alchemist Aviation Pvt. Ltd, Jamshedpur
* Ambitions Flying Club Pvt. Ltd, Aligarh
* Flytech Aviation Academy, Secunderabad
* Indira Gandhi Rashtriya Udaan Academy, Amethi
* Pioneer Flying Academy Pvt. Ltd, Aligarh
* Redbird Flight Training Academy Pvt. Ltd, Baramati
* The Bombay Flying Club, Mumbai
* Telangana State Aviation Academy, Hyderabad Course

Fees: The fee varies depending on the type of course. Course fees start from Rs 30,000 and may go up to around Rs 1 lakh, depending on the type of course and institute.

Skills Required: Even though the basic requirement is just a 10th pass, one must also have basic understanding of avionics, weather, wind speed, and other mechanics. Drone operations are rapidly expanding in various sectors, and each sector has its specific requirements. Therefore, drone pilots looking for jobs in specific sectors like filmmaking, geosensing, construction, mining, real estate, agriculture, and telecommunications should ideally have sound understanding of the sectors of their interest.

Institutes: Other than the institutes approved by the Directorate General of Civil Aviation (DGCA), the Indian Institutes of Technology (IITs) as well as other technical universities in association with private organisations offer courses on the design and development of drones.

Drone Pilot Trainers: Certified trainers shall be required to train people who aspire to be drone pilots and undergo the certification process. This role assumes great significance as good training will lead to safer flying of drones.

Hardware Engineers and Technicians: Drone manufacturing and maintenance has become a growing industry and many tech enterprises including Startups have opened up job opportunities for design engineers, mechanical engineers, aeronautical engineers, Research and Development teams, assembly engineers, on-field support engineers, analysts and instructors.

Courses: Courses on unmanned aerial vehicles (UAV) design introduce the designing and sizing process in simulated conditions, stability analysis and prototype testing for UAV technology. Added knowledge of electronics is always a big plus in this domain. Anyone from any background can pursue a course on UAV design.

Software Engineers: To effectively fit in various industries, there has been increased development of software for drones. By integrating image optimization software and machine learning with drone technology, operators can inspect assets in real-time quickly and efficiently. Software development team include industry-specific technology specialists who create custom drone software solutions for use in construction, agriculture, land surveying, media, aviation, real estate, mining, forestry, and other drone mapping services fields. The most common type of software used in the drones include drone mapping software, drone inspection software, drone swarm software (facilitates simultaneous controlling of more than one drones for purposes such as missionbased or choreographed aerial light shows), enterprise drone solutions for data analysis, software for AI capable collision avoidance and landing calibration, photogrammetry software that transforms imagery into maps and 3D digital terrain models into custom drone surveying solutions. In addition to this, all enterprises engaged in the drone business have their internal Program Management Software as managing a drone program is a complex operation, covering many functions. Looking across the drone software market, you will find a plethora of products targeted at one or a few of these functions. For example, there are popular software products focused only on flight logging, or only on equipment management, or only on data management. However, using a single software solution for as many functions as possible - work ordering, resource management, flight planning and tracking, program reporting, compliance, and data management – helps the company streamline operations and manage their program more efficiently. Therefore, software developers and software maintenance and support staff play crucial role in the drone industry.

Maintenance & Repair Staff: For an enterprise involved in drone business, having a structured drone maintenance and repair setup will eliminate many potential safety hazards in the field, reduce unproductive downtime due to malfunctioning equipment, and lessen instances of poor quality data acquisition. Maintenance staff handle procedures ranging from preflight inspection to internal aircraft inspection to bench testing to complete overhauls, dictating the frequency with which these should occur.

Data Processors & Analysts: There are many different ways to use drone data. Sometimes, simply capturing a few pictures and reviewing them on-site is all that is required. But, to get the most value out of drones, many images need to be captured and have them processed and analyzed. In other words, a company needs to create a data product. There are many different data products. In some cases, a company uses industry-specific software platform and an internal data team to process and analyze the data. In other cases, they will send the captured data out to a third party. The role of data analysts is to create such data products by properly organizing and uploading the data collected by the drone for processing. Depending on the type of inspection, data may be organized by location, mission, flight number, and/or an asset identifier system (for example, solar fields may use row numbers; wind farms may use turbine and blade numbers, etc.). Such data may be saved to a cloud storage system and shared with the client.

Drone Operations Manager: Most companies will designate someone to lead the charge, be an internal champion, and most importantly, manage the many aspects of the program. Depending on the size of the organization and how it is structured, this can be one person from a central location, or it can be several people managing operations in their region. Typically, this would be the Drone Operations Manager who is responsible for ensuring all the functions of the program are running smoothly, whether accomplished in-house or outsourced. The Drone Operations Manager must be an excellent communicator as the job will require coordination between many different parties. Also, the ability to respond to emergency situations and high-pressure events is important. Managing a corporate drone program requires the coordination, oversight, and execution of a wide range of tasks and functions. The Drone Ops Manager will work with a team that might include fulltime and/or contract pilots, trainers, drone engineers, and data analysts, among others.

Drones have recorded increased adoption in the recent years owing to their widespread capabilities—from simple photography to surveillance, monitoring roads and railway lines and even delivering essentials to customers and to remote locations. Moreover, even amid the ongoing COVID-19 pandemic, drones played a crucial role in carrying out a host of activities—from surveillance and sanitisation to temperature checks and public broadcasting—across the country. This not only helped in minimising the risk of virus spread, but also helped authorities in ensuring the safety of healthcare and police personnel. Moreover, the liberalised norms have helped in increasing the application of drones that were previously limited to government agencies alone. With this, more companies and startups have geared up their investments in this sector. India is focusing more on being 'Aatmanirbhar' (self-reliant). With the waiver of pilot licenses in certain categories, reduced formalities; launch of new drone corridors and incentivising local manufacturers, drones could change the scenario across various sectors in the country as well as generate large-scale employment opportunities.

ENVIRONMENT & AGRICULTURE COLUMN

Education And Career Opportunities In Agriculture

(Written By – Our Correspondent)

Despite making remarkable progress in industrialization, India continues to be an agrarian economy and a top producer and exporter of several agricultural commodities. The increased government support, growing AgriTech providers, start-up ecosystem and rising digital adoption among rural farming population is providing a strong transformation impetus to the Indian agriculture sector. The transformation of the agriculture sector also encompasses the plethora of new employment and entrepreneurial opportunities the sector has to offer. If agriculture interests you as a subject, you can explore many career opportunities in the agriculture field, beyond being a farmer. For this, you need to have an academic foundation with agriculture as a core.

Bachelor of Science (Agriculture) can be pursued after completing 10+2 with science background. Syllabus of this course covers topics like classification of crops, principles of crop production, soil preparation, seed and sowing, post sowing-tillage, water/ irrigation/ nutrient management, plant protection measures, harvesting, threshing and storage, crop sequencing, weather and weather forecasting, calculation of fertilizer requirement, fundamentals of soil science, elements of genetics, horticulture, systems of irrigation, agricultural meteorology, rural/ educational sociology, working of basic rural institutions, statistics and mathematics, physical education, natural resources and farm management, plant biochemistry, extension education and rural management, crop physiology, basics of microbiology/ entomology, use of computers in agriculture, principles of plant breeding, field crops, vegetable crop production, principles and methods of soil and water conservation, objectives and uses of remote sensing, farm power and machinery, agricultural marketing, cooperatives, plant pathology, methods of insects and pests management, livestock production and management, silviculture, agro-forestry, weed management, spices, aromatic and medicinal plants, animal nutrition, soil fertility, crop diseases and their management, environmental science and agro economy, milk production and processing, plant biotechnology, post-harvest management of fruits and vegetables, crop diseases and management, seed technology, farming systems and sustainable agriculture, water shed management, agriculture finance, social-forestry etc.

Candidates have option to go for a general B.Sc. (Agriculture) course or take up a course which specializes in a particular branch of agriculture or allied subjects like Horticulture, Forestry, Sericulture and Agronomy among others.

Master of Science (Agriculture) is more specialized and options include Agricultural Chemistry/Physics, Aquaculture Agronomy, Entomology, Extension Education, Horticulture, Forestry Nematology, Plant Physiology, Pathology, Plant Breeding and Genetics, Soil Science etc. For pursuing a particular specialization, candidates need to check if they have requisite qualification at their graduation level. To illustrate M.Sc. (Ag) in Plant Physiology at Dr Rajendra Prasad Central Agricultural University, Pusa is open to only those whose qualification is simple B.Sc. (Ag) or B.Sc. (Ag) with Horticulture. Thus someone having B.Sc. (Ag) Forestry would not be considered eligible.

A large number of candidates after their M.Sc. (Ag) or similar qualification prefer to enroll for research as there are immense number of opportunities for research in agriculture and allied subjects.

Agricultural Economics: Agricultural Economics is a branch of Economics in which we apply principles of economics to agriculture. It is a social science that deals with how producers, consumers, and societies use scarce and natural resources in the production, processing, marketing, and consumption of food and related products. Agricultural economics has both micro-economic and macro-economic dimensions. At the micro level, it is concerned with issues related to resource use in the production, processing, distribution, and consumption of products in food and other agriculture produce. Agricultural economists involved at the macro level are interested in how agriculture and agribusinesses affect domestic and world economies and how the events taking place in other sectors affect these and vice versa. For students of Master Degree in Economics, it is possible to choose specialization in agricultural economics. At the same time, courses such as M.A. or M.Sc. in Agricultural Economics/ Agricultural Statistics are also available. Bengaluru based Dr Ambedkar School of Economics and many others have Agricultural Economics as an elective paper.

Agricultural Engineering: This stream of academics applies engineering principles to find solutions in agriculture and agriculture related work. Agricultural engineers design and develop equipments and machinery and also work on soil and water conservation, irrigation and water drainage systems etc. They contribute in making farming activities easier, more productive and profitable. B.Tech in Agricultural Engineering may be pursued after 10+2. Those who want to pursue M.Tech in Agricultural Engineering may choose specializations like Farm Machinery & Power Engineering, Soil & Water Engineering, Processing & Food Engineering etc.

Agri-Business Management: Introduction of courses related to Agricultural Management and Agri-Business Management is relatively a new development. In about the last two decades, management education in the country has gained much popularity. Considering the role and importance of agriculture in our country, it is heartening to see availability of courses in management of business related to agriculture. In some cases, graduates from any discipline can find admission in such courses otherwise one needs to be a graduate in agriculture or in related subjects to pursue a postgraduate course in AgriBusiness Management. Very few opportunities are available to study Agri-Business Management at undergraduate level one of which is B.Sc. (Agribusiness Management) at Tamilnadu Agricultural University, Coimbatore.

Where to Study?

India has one of the best educational infrastructure when it comes to education in different disciplines related to agriculture. The Indian Council of Agricultural Research (ICAR) was established as the apex body for co-ordinating, guiding and managing research education and research in agriculture in our country. There are 71 agricultural universities and 111 ICARaffiliated institutes spread across the country. This is one of the largest national agricultural education and research systems in the world. The ICAR has played a pioneering role in ushering Green Revolution. All agricultural universities offer B.Sc., M.Sc., B.Tech., M.Tech. and Ph.D in Agriculture (and its branches). Courses in Agricultural Economics/Statistics as well as Agri-Business Management are available with only some of the agricultural universities.

Top Universities for Agriculture

* G B Pant University of Agriculture and Technology, Pantnagar
* Agricultural University, Kota
* Assam Agricultural University, Jorhat
* Kerala Agricultural University, Thrissur
* Uttar Bang Krishi Vishwavidyalaya, Cooch Bihar
* University of Agricultural Sciences, Bengaluru
* Banda University of Agriculture and Technology, Uttar Pradesh
* Chaudhary Charan Singh Haryana Agricultural University, Hisar
* Sher-e-Kashmir University of Agricultural Sciences and Technology, Srinagar
* Acharya N.G.Ranga Agricultural University, Guntur
* Indira Gandhi Krishi Vishwavidyalaya, Raipur
* Orissa University of Agricultural and Technology, Bhubaneshwar
* Anand Agricultural University, Gujarat
* Maharana Pratap University of Agriculture and Technology, Udaipur
* Dr Panjabrao Deshmukh Krishi Vidyapeeth,
* Akola z Bihar Agricultural University, Bhagalpur
* Chander Sekhar Azad University of Agriculture and Technology, Kanpur
* Rajmata Vijayaraje Scindia Krishi Vishwavidyalaya, Gwalior
* Dr Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Maharashtra

Other universities including private and deemed to be universities and their affiliated colleges also offer courses in agriculture. Engineering courses in agriculture are offered at many of the Agriculture/other Universities, engineering colleges and also at some of the IITs/NITs. For example IIT, Kharagpur has courses in agricultural and food engineering.

Institutes offering Agriculture Management/Agri-Business Managment

* Indian Institute of Management, Ahmedabad/ Lucknow
* Dr. Rajendra Prasad Central Agricultural University, Pusa/ Samastipur
* Vaikunth Mehta National Institute of Cooperative Management, Pune
* Indian Institute of Plantation Management, Bengaluru
* National Institute of Agricultural Extension Management, Hyderabad
* Institute of Management Studies, Banaras Hindu University
* Institute of Rural Management, Anand
* National Institute of Agricultural Marketing, Jaipur
* Gandhigram Rural Institute, Dindigul (deemed to be university)
* National Institute of Rural Development, Hyderabad

Research: Indian Agricultural Research Institute, New Delhi is a good place to pursue study and research in agriculture.

Job Opportunities

A qualification in Agriculture opens many pathways of work. Campus placement happens at many of the institutes offering courses in Agriculture. Some of the companies which have made campus selection in recent years include Amul, ITC, Nestle, KPMG, Syngenta, KRIBHCO, Rallis India Limited, Godrej Agrovet, Mosanto, DUPONT, DCM SRIRAM, Dhanuka Agritech, BASIX, Aga Khan Foundation, Aditya Birla Group etc. The list gives an idea of the kind of organizations which look for people with qualification in agriculture.

Job opportunities exist in fertilizer, pesticides, agrochemical, agricultural equipment, tractor manufacturing companies and also microfinance organizations, cooperatives etc. Agro and rural tourism can also be among options.

Banking sector comprising both public and private sector banks recruit graduates in Agriculture as Agricultural/ Field/ Rural Development Officers. For Public Sector Banks, Institute of Banking Personnel Selection conducts centralized test every year. If you want to choose All India Services, Indian Forest Service (IFS) can be your bet for which examination is conducted every year by Union Public Service Commission. Intensive preparation is required to succeed in this competitive examination.

Agricultural Scientists Recruitment Board has a scheme of National Eligibility Test and Agricultural Research Service and from time to time advertises vacancies for senior positions in government organizations involved in research in agriculture. Various other institutes offering research opportunities include National Rice Research Institute, Cuttack, Indian Institute of Vegetable Research, Varanasi Central Potato Research Institute, Shimla Central Research Institute of Dryland Agriculture, Hyderabad; Central Coastal Agricultural Research Institute, Goa; Central Plantation Crop Research Institute, Kasargod; Indian Grassland and Fodder Research Institute, Jhansi; Central Institute of Cotton Research, Nagpur; Indian Institute of Pulses Research, Kanpur and many others.

Bodies like Central Institute of Agricultural Engineering, Bhopal recruit senior research fellows and research fellows.

Many start-ups now are working in the agriculture domain. You may have your own start-up or work with one. Organizations involved in rural development, non-governmental organizations and the area of corporate social responsibility also offer work opportunities.

Agriculture offers worldwide opportunities. Students with higher qualification in Agriculture may work with international organizations like SAARC Agriculture Centre, Food and Agricultural Organization, International Food Policy Research Institute, International Crop Research Institute for the SemiArid Tropics etc.

One can also explore opportunities in other domains related to agriculture such as animal husbandry, fisheries, dairy/poultry farming, floriculture, forestry, sericulture, food processing.

NEWS & VIEWS EXPRESS

Indian Economic Service (IES) Exam - An Overview

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About Indian Economic Service (IES)

The Indian Economic Service (IES) is an organized Group 'A' Central Service. The IES was constituted in 1961 with the objective of institutionalising a core professional capacity within the Government to undertake economic analysis and render advice for designing and formulating development policies, strengthening delivery systems, and monitoring and evaluating the public programmes. With the initiation of large-scale economic reforms in 1991 and the proliferation of the regulatory role of the government, such analysis and advice within the domain of the service has increased manifold. The Cadre Controlling of the IES is located in the Ministry of Finance (Department of Economic Affairs).

About IES Exam

The UPSC conducts a combined competitive examination for recruitment to Grade IV officers of the services of Indian Economic and Indian Statistic.

Eligibility Criteria

Education: You should have post graduate degree from a recognized university in Economics or Applied Economics or Business Economics or Econometrics.

Age: You must have attained the age of 21 years and must not have attained the age of 30 years on 1st August of the year of exam.

Exam Pattern

Part I is written examination carrying a maximum of 1000 marks. The exam is of conventional type. Part II is viva-voce of such candidates as may be called by the Commission, carrying a maximum of 200 marks.

IES Exam Syllabus

The standard of papers in General English and General Studies will be such as may be expected of a graduate of an Indian University. The standard of papers in the other subjects will be that of the Master's degree examination of an Indian University in the relevant disciplines. The candidates will be expected to illustrate theory by facts, and to analyse problems with the help of theory. They will be expected to be particularly conversant with Indian problems in the field of Economic or Statistics.

General English: Candidates will be required to write an essay in English. Other questions will be designed to test their understanding of English and workmanlike use of words. Passages will usually be set for summary or precis.

General Studies: General Knowledge including knowledge of current events and of such matters of every day observation and experience in their scientific aspects as may be expected of an educated person who has not made a special study of any scientific subject. The paper will also include questions on Indian Polity including the political system and the Constitution of India, History of India and Geography of a nature which the candidate should be able to answer without special study.

General Economics I

1. **Theory of Consumer's Demand:** Cardinal utility Analysis; Marginal utility and demand, Consumer's surplus, Indifference curve Analysis and utility function, Price income and substitution effects, Slutsky theorem and derivation of demand curve, Revealed preference theory. Duality and indirect utility function and expenditure function, Choice under risk and uncertainty.
2. **Theory of Production:** Factors of production and production function. Forms of Production Functions: Cobb-Douglas, CES and Fixed coefficient type, Translog production function. Laws of return, Returns to scale and Return to factors of production. Duality and cost function, Measures of productive efficiency of firms, technical and allocative efficiency. Partial Equilibrium versus General Equilibrium approach. Equilibrium of the firm and industry.
3. **Theory of Value:** Pricing under different market structures, public sector pricing, marginal cost pricing, peak load pricing, cross-subsidy free pricing and average cost pricing. Marshallian and Walrasian stability analysis. Pricing with incomplete information and moral hazard problems.
4. **Theory of Distribution:** Neo classical distribution theories; Marginal productivity theory of determination of factor prices, Factor shares and adding up problems. Euler's theorem, Pricing of factors under imperfect competition, monopoly and bilateral monopoly. Macro-distribution theories of Ricardo, Marx, Kaldor, Kalecki.
5. **Welfare Economics:** Inter-personal comparison and aggregation problem, Public goods and externality, Divergence between social and private welfare, compensation principle. Pareto optimality. Social choice and other recent schools, including Coase and Sen and Game theory.

Quantitative Methods in Economics:

1. **Mathematical Methods in Economics:** Differentiation and Integration and their application in economics. Optimisation techniques, Sets, Matrices and their application in economics. Linear algebra and Linear programming in economics and Input-output model of Leontief.
2. **Statistical and Econometric Methods:** Measures of central tendency and dispersions, Correlation and Regression. Time series. Index numbers. Sampling and Survey methods. Testing of hypothesis, simple non-parametric tests. Drawing of curves based on various linear and non-linear function. Least square methods and other multivariate analysis (only concepts and interpretation of results). Analysis of Variance, Factor analysis, Principle component analysis, Discriminant analysis. Income distribution: Pareto law of Distribution, lognormal distribution, measurement of income inequality. Lorenze curve and Gini coefficient.

General Economics II

1. **Economic Thought:** Mercantilism Physiocrats, Classical, Marxist, Neo-classical, Keynesian and Monetarist schools of thought.
2. **Concept of National Income and Social Accounting:** Measurement of National Income, Inter relationship between three measures of national income in the presence of the Government sector and International transactions. Environmental considerations, Green national income.
3. **Theory of employment, Output, Inflation, Money and Finance:** The Classical theory of Employment and Output and Neo classical approaches. Equilibrium, analysis under classical and neo classical analysis. Keynesian theory of Employment and output. Post Keynesian developments. The inflationary gap; Demand pull versus cost push inflation, the Philip's curve and its policy implication. Classical theory on Money, Quantity theory of Money. Friedman's restatement of the quantity theory, the neutrality of money. The supply and demand for loanable funds and equilibrium in financial markets, Keynes' theory on demand for money.
4. **Financial and Capital Market:** Finance and economic development, financial markets, stock market, gift market, banking and insurance. Equity markets, Role of Primary and Secondary markets and efficiency, Derivatives markets; Futures and options.
5. **Economic Growth and Development:** Concepts of Economic Growth and Development and their measurement: characteristics of less developed countries and obstacles to their development – growth, poverty and income distribution. Theories of growth: Classical Approach: Adam Smith, Marx and Schumpeter – Neo classical approach; Robinson, Solow, Kaldor and harrod Domar. Theories of Economic Development, rostow, Rosenstein-Roden, Nurske, Hirschman, Leibenstien and Arthur Lewis, Amin and Frank (Dependency school) respective role of the state and the market. Utilitarian and Welfariest approach to social development and A K Sen's critique. Sen's capability approach to economic development. The Human Development Index. Physical quality of Life Index and Human Poverty Index.
6. **International Economics:** Gains from International Trade, Terms of Trade, policy, international trade and economic development – Theories of International Trade; Ricardo, Haberler, Heckscher-Ohlin and Stopler-Samuelson – Theory of Tariffs – Regional Trade Arrangements.
7. **Balance of Payments:** Disequilibrium in Balance of Payments, Mechanism of Adjustments, Foreign Trade Multiplier, Exchange Rates, Import and Exchange Controls and Multiple Exchange Rates.
8. **Global Institutions:** UN agencies dealing with economic aspects, World Bank, IMF and WTO, Multinational Corporations.

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NEWS & VIEWS EXPRESS

Low Banking Density of Odisha

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Institutional finance is critical to functioning of the economy. Public and private sector banks as well as specialized banks like regional rural banks (RRB's)and state co-operative banks are central to any state's financial system. These institutions facilitate credit provision (through targeted and non-targeted advances), liquidity provisions (by accepting demand deposits and offering line of credit) and certain risk management services (like handling derivatives transactions).

In Odisha, banking and other financial services have not gained significant strength in terms of outreach and expansion. Total number of bank branches marginally increased from 5031 in 2016-17 to 5,497 in December, 2021.

Total number of bank branches are significantly higher for neighbouring and major states like Andhra Pradesh (7,608), Bihar (7,761), Gujarat (8,811) Karnataka (10,932), Kerala (6,913), Madhya Pradesh (7,513), Maharashtra (13,973), Punjab (6,674), Rajasthan (8,115), Tamil Nadu (12,301), Telangana (5,752), Uttar Pradesh (18,393) and West Bengal (9,790). Number of bank branches are less in Odisha than 14 states.

Across the bank groups, private sector banks have seen faster expansion. From a total of 569 bank branches in 2008-09, the number has increased to 978 in December, 2021. While the number of public sector bank branches has increased marginally from 3128 in 2016-17 to 3,240 in December, 2021, although their branch network remains the largest.

Similarly Regional Rural Bank branches has increased marginally from 991 in 2016-17 to 1,002 in December, 2021. Thus public sector banks continue to dominate the banking industry in Odisha with 58.94 per cent share in total bank branches in the state.

The state has repeated asked banks to set up brick-and-mortar branches in the unbanked regions of the state. While the government is stressing direct benefit transfer (DBT) under several schemes, as many as 4,921 gram panchayats lack brick-and-mortar bank branches in the state. The state has 6,234 gram panchayats.

The state government has urged bankers and the Government of India to set up branches in places that are not connected by the banking system. With the government making payment to various social security schemes beneficiaries through DBT, lack of banks in rural areas was hindering the process.

As per Department of Telecommunication, percentage of inhabited villages with 3G/4G mobile internet coverage is 81.23% in 2021. Uncovered beneficiaries of different schemes are facing difficulty in receiving money in the absence of bank branches and internet connectivity.

One of the important constraints for financial inclusion in the state is the relatively low number of bank branches in certain districts of the state. Districts like Boudh, Deogarh and Malkangiri have very few bank branches. Shares of number of bank branches in these districts are negligible (less than one percent) compared to other districts in Odisha.

Thus it is imperative to identify the areas with poor banking facilities, and come up with ways and means to connect them to the mainstream banking system. One way may be to increase the number of bank branches in areas with poor banking facilities.

Given the cost of operating a bank branch in remote areas, it is more efficient to reach out to potential beneficiaries through the Bank Correspondent Agencies (BCAs) channel. The BCAs, Bank Mitras etc. are often based out of their operational areas and are more suitable to work with the local population.

This potential should further be harnessed to create a successful banking structure. It is essential that through surveys and other means of investigation, banks and related agencies understand the financial needs of individuals. Thus focus should be on products which are simple, affordable and are of high utility.

Low credit utilization by banks is another problem faced by the banking sector in Odisha. Low credit utilization by commercial banks has resulted in inequality in availability of banking services. To overcome this situation, banks should make population wise assessment of utilization of financial products. This would also help in assessing the spread of financial literacy across the different population groups.

As financial literacy is the key to success in terms of financial inclusion, it is important that subscribers at the grass root level are aware about processes like KYC, various bank schemes/products etc. For this, BCAs can be utilized to further advance the process of financial literacy. Also, NGOs and other social organizations may be involved to encourage the spread of financial services to rural and remote areas.

Regarding the Self Help Group (SHG) model that is quite popular in the state, increasing NPAs are a problem that needs attention. Other challenges include the continued reluctance of banks to lend to SHGs, lack of adequate capacity at the Self-Help Promoting Institutions (SHPI), and quality of SHGs. Growth of the SHG movement depends upon giving an innovative orientation to the concept.

The state government, National Bank for Agriculture and Rural Development (NABARD) and other donor agencies should make serious effort and invest to develop few very large SHPIs capable of supporting and managing a large base of SHGs like the way Small Industries Development Bank of India (SIDBI) invested in creating a few large MFIs. Also for the success of the SHG model, it is essential that technology is leveraged enough to further reduce transaction costs or make the linkage process more efficient.

Use of technology along with BCA's can help banks tap the large unbanked sector. For this linking the use of mobile phones, small finance banks, payment banks and micro ATM's with the banking correspondent can help deliver low cost banking solutions to unbanked customers.

To ensure large coverage and sustainability of this structure it is important to utilize the existing customer identification systems like Aadhaar or MGNREGA job cards along with private telecom companies that have large distribution channels to facilitate the working of BCAs.

Also, in order to ensure efficient functioning of BCAs adequate remuneration should be paid to the BCs. Finally, proper training to BCs about basic banking, banking products, customer handling etc. is essential for the sustainability of the BCA-Bank integration model.

Ministry of Finance, Government of India may take appropriate steps to increase number of bank branches in the state which will lead to financial inclusion.

From Page 14 (Indian Economic...)

General Economics III

1. **Public Finance:** Theories of taxation: Optimal taxes and tax reforms, incidence of taxation; Theories of public expenditure: objectives and effects of public expenditure, public expenditure policy and social cost benefit analysis, criteria of public investment decisions social rate of discount, shadow prices of investment, unskilled labour and foreign exchange. Budgetary deficits. Theory of public debt management.
2. **Environmental Economics:** Environmentally sustainable development, Green GDP, UN Methodology of Integrated Environmental and Economic Accounting. Environmental Values: Users and non-users values; option value. Valuation Methods: Stated and revealed preference methods. Design of Environmental Policy Instruments: Pollution taxes and pollution permits, collective action and informal regulation by local communities. Theories of exhaustible and renewable resources. International environmental agreements. Climatic change problems. Kyoto protocol, tradable permits and carbon taxes.
3. **Industrial Economics:** Market structure, conduct and performance of firms, product differentiation and market concentration, monopolistic price theory and oligopolistic interdependence and pricing, entry preventing pricing, micro level investment decisions and the behaviour of firms, research and development and innovation, market structure and profitability, public policy and development of firms.
4. **State, Market and Planning:** Planning in a developing economy. Planning regulation and market. Indicative Planning. Decentralised Planning.

Indian Economics

1. **History of Development and Planning:** Alternative Development Strategies – goal of self reliance based on import substitution and protection, the post 1991 globalisation strategies based on stabilization and structural adjustment packages: fiscal reforms, financial sector reforms and trade reforms.
2. **Federal Finance:** Constitutional provisions relating to fiscal and financial powers of the states, Finance Commissions and their formulae for sharing taxes, Financial aspect of Sarkaria Commission Report, Financial aspects of 73rd and 74th Constitutional Amendments.
3. **Poverty, Unemployment and Human Development:** Estimates of inequality and poverty measures for India, appraisal of Government measures, India's human development record in global perspective. India's population policy and development.
4. **Agriculture and Rural Development Strategies:** Technologies and institutions, land relations and land reforms, rural credit, modern farm inputs and marketing – price policy and subsidies; commercialization and diversification. Rural development programmes including poverty alleviation programmes, development of economic and social infrastructure and New Rural Employment Guarantee Scheme.
5. **India's experience with Urbanisation and Migration:** Different types of migratory flows and their impact on the economies of their origin and destination, the process of growth of urban settlements; urban development strategies.
6. **Industry:** Strategy of Industrial development: Industrial Policy Reforms; Reservation Policy relating to small scale industries. Competition policy, Sources of industrial finances. Bank, share market, insurance companies, pension funds, non-banking sources and foreign direct investment, role of foreign capital for direct investment and portfolio investment, Public Sector reform, privatization and disinvestments.
7. **Labour:** Employment, unemployment and under-employment, industrial relations and labour welfare – strategies for employment generation – Urban labour market and informal sector employment, Report of National Commission on Labour, Social issues relating to labour e.g. Child Labour, Bonded Labour, International Labour Standard and its impact.
8. **Foreign Trade:** Salient features of India's foreign trade, composition, direction and organization of trade, recent changes in trade policy, balance of payments, tariff policy, exchange rate, India and WTO requirements.
9. **Money and Banking:** Financial sector reforms, Organisation of India's money market, changing roles of the Reserve Bank of India, commercial banks, development finance institutions, foreign banks and non-banking financial institutions, Indian capital market and SEBI, Development in Global Financial Market and its relationship with Indian Financial Sector.
10. **Inflation:** Definition, trends, estimates, consequences and remedies (control): Wholesale Price Index, Consumer Price Index: components and trends.
11. **Budgeting and Fiscal Policy:** Tax, expenditure, budgetary deficits, pension and fiscal reforms, Public debt management and reforms, Fiscal Responsibility and Budget Management (FRBM) Act, Black money and Parallel economy in India definition, estimates, genesis, consequences and remedies.

Life is really simple, but we insist on making it complicated.

THE SPORTS AFFAIRS COLUMN

Ronaldo vs Messi : Who is the Best ?

(Written By – Our Correspondent)

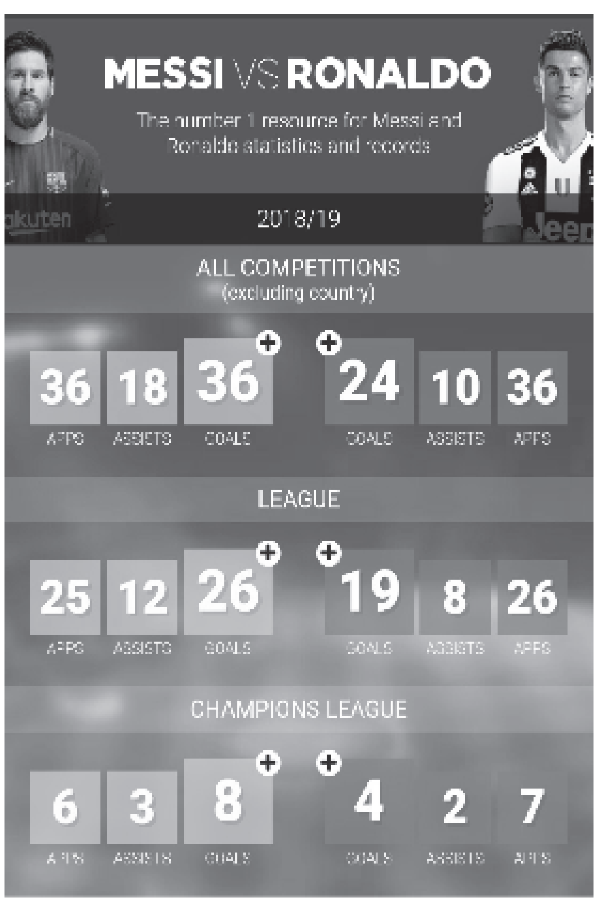
Messi and Ronaldo are the world's greatest footballers, but who's the best ?

The Ronaldo–Messi rivalry is a football rivalry between fans of Portuguese forward Cristiano

Ronaldo and Argentinian forward Lionel Messi and supposedly between the athletes themselves. Having won a combined ten Ballon d'Or/FIFA Ballon d'Or awards (5 each), both are widely regarded not only as the two best players of their generation, but also regarded by many as the greatest of all time. Both players have regularly broken the 50 goal barrier in a single season and have scored over 600 goals each in their careers for club and country.

Some commentators choose to analyse the differing physiques and playing styles of the two while part of the debate revolves around the contrasting personalities of the two players: Ronaldo is sometimes described as someone of temperamental character while Messi is portrayed with reserved character.It could be the case that this is why Messi is considered trustworthier and more likable by the public,even though Ronaldo improved his reputation since 2013.

At club level, Messi and Ronaldo represented rivals FC Barcelona and Real Madrid, the two players faced each other at least twice every season in the world's most popular regular-season club game, El Clásico (among the most viewed annual sporting events), until Ronaldo's transfer to Italian club Juventus F.C. in 2018.Off the field, they are the face of two rival sportswear manufacturers, Messi of Adidas and Ronaldo of Nike, which are also the kit suppliers of their national teams and the opposite for their clubs. The two highest paid players in football, Messi and Ronaldo are among the world's best paid sports' stars in combined income from salaries, bonuses and off-field earnings. In 2018, Messi edged Ronaldo on Forbes list of the best-paid athletes, earning $111 million, with Ronaldo next at $108 million.They have the two biggest social media followings in the world among sportspeople with a combined 211 million Facebook fans in 2016, Ronaldo having 122 million and Messi 89 million.



History

In 2007, Ronaldo and Messi finished as runners-up to A.C. Milan's Kaká in both the Ballon d'Or, an award rewarded to the player voted as the best in the world by an international panel of sports journalists; and the FIFA World Player of the Year, an award voted for by coaches and captains of international teams. In an interview that year, Messi was quoted as saying "Cristiano Ronaldo is an extraordinary player and it would be brilliant to be in the same team as him".

They first played in a game together when Manchester United were drawn to play Barcelona in the 2007–08 UEFA Champions League semi-finals and were immediately pitted as major rivals.Ronaldo missed a penalty in the first leg,but United eventually advanced to the final via a Paul Scholes goal.At the end of the year, Ronaldo was awarded the Ballon d'Or and vowed that he would win the award again.

The 2009 UEFA Champions League Final was contested between Manchester United and Barcelona on 27 May 2009 at Stadio Olimpico in Rome, Italy. The match, described as a "dream clash",was again hyped as the latest battle between the two, this time to settle who was the best player in the world; Ronaldo claimed he was the better of the two while Messi's club-mate Xavi sided with him. United manager Alex Ferguson was more diplomatic, praising both players as being amongst the world's elite talents.Messi, playing in a central role he was unaccustomed to so he would avoid a direct battle with United left-back Patrice Evra,scored Barcelona's second in a 2–0 victory with a header in the 70th minute.Meanwhile, Ronaldo was subdued for much of the game despite some early chances to score and his frustration eventually showed when he was booked for a rash tackle on Carles Puyol.

Relationship between Messi and Ronaldo

In a 2015 interview, Ronaldo commented on the rivalry by saying that "I think we push each other sometimes in the competition, this is why the competition is so high"while Ronaldo's manager during his time at Manchester United Alex Ferguson opined that "I don't think the rivalry against each other bothers them. I think they have their own personal pride in terms of wanting to be the best". Messi has denied any rivalry, and blames the media for creating it: "only the media, the press, who wants us to be at loggerheads but I've never fought with Cristiano".

However, it is widely argued and documented that there's an atmosphere of tension between the duo, with Guillem Balagué claiming in Messi that Ronaldo refers to the Argentine counterpart as "motherfucker" behind his back, and Luca Caioli saying in his book, Ronaldo: The Obsession for Perfection, that according to his sources, Ronaldo heats up when watching Messi play.In response to claims that he and Messi do not get on well on a personal level, Ronaldo commented: "We don't have a relationship outside the world of football, just as we don't with a lot of other players", before adding that in years to come he hopes they can laugh about it together, stating: "We have to look on this rivalry with a positive spirit, because it's a good thing". On 13 November 2014, Ronaldo also threatened to take

legal action over the remarks made by Balagué.

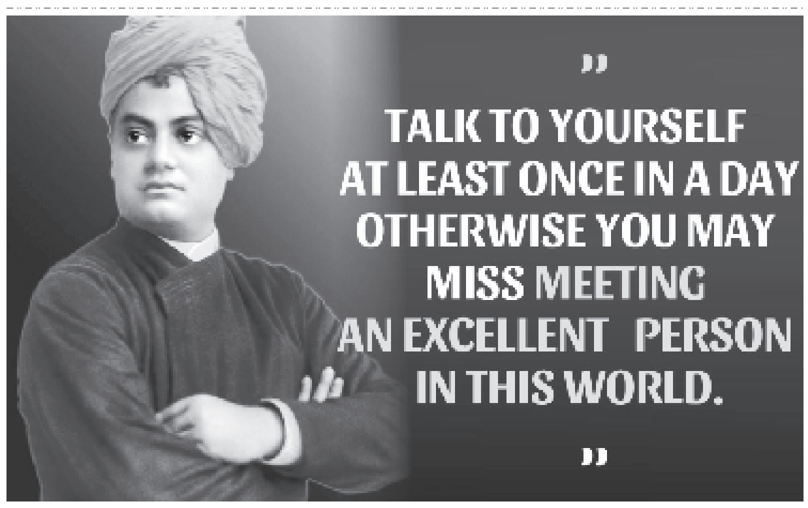
Awards and records

Throughout the existence of the rivalry, the pair have dominated awards ceremonies and broken a multitude of goalscoring records for both club and country, feats which have been described as "incredible", "ridiculous" and "remarkable".The rivalry itself has been described as one about records and reputation of the players, rather than one based in loathing.

Ronaldo is the UEFA Champions League all-time top goalscorer while Messi is second. The two had broken each other's record over the course of 2015 after Messi surpassed the previous record holder Raúl in November 2014.[58] Ronaldo opened a gap in the 2015–16 season when he became the first player to score double figures in the group stage of the Champions League, setting the record at 11 goals. They are the first two players to score 100 goals in UEFA Champions League history.

They dominated the Ballon d'Or/The Best FIFA Men's Player awards since 2008, and UEFA Men's Player of the Year Award since 2014, however, in 2018 their roughly decade-long triumph was ended by Luka Modrić, seen as "end of an era".However, Modrić stated in an interview for the France Football that "history will say that a Croatian player, representing his small country, won the Ballon d'Or after Cristiano Ronaldo and Lionel Messi, who are players at another level. Nobody has the right to compare themselves to them. They are the best in the history of this sport", and did not think it was the end for them.

And who knows? With the World Cup offering both men the opportunity to present new, emphatic arguments in their favour while performing on the the world's biggest soccer stage, this debate is far from over.



THE STUDENT AFFAIRS COLUMN

Great Scientists Who Contributed To The Freedom Movement

(Written By - Our Correspondent)

As we celebrate 75 years of India's independence, we remember the contributions of freedom fighters who dedicated their lives to earn this independence. Some took the path of non-violence and some opted for direct confrontation. However, very few people are aware of the fact that our scientists also contributed in their own way in India's freedom movement. The British authorities applied every possible means to humiliate their efforts and belittle their contributions. They were challenged to build their own laboratories and develop their own instruments. Our scientists bravely faced the disdain of the British rule and developed the infrastructure on which the nation built its own path post-independence. India's scientific heritage is centuries old, but the foundations of scientific institutions that we see in the country today were laid by our scientists by fighting the British.The list of such scientists is very long. We would explore here four early scientists who laid the foundation of indigenous science in the country. Several Indians working in the Geological Survey, Botanical Survey, Zoological Survey, Archaeological Survey, and Survey of India had worked on scientific research and made valuable contributions. Their researches were published in the journals in England. The knowledge from India was used for the advancement of science in England. The scientific advancement was not used for the benefit of India. The British didn't want the Indians to do any research in India and never acknowledged their achievements.

Mahendra Lal Sircar (1833-1904)

Mahendra Lal Sircar was born in 1833 in a poor family at Kolkata. He was brilliant in studies and in 1835 started studying in the Medical College in Calcutta (now Kolkata). In the absence of the English lecturers his classmates used to ask him to teach them. He completed his MD and started practicing medicine. In 1863 a branch of British Medical Association (BMA) was opened in Calcutta and Sircar was made the General Secretary of the Association.

At that time Homeopathy was already practised in India, but the British were disdainful towards it. When Sircar was unable to cure one of his patients and that patient got cured with Homeopathy, he became curious to know more about this form of treatment. He started studying Homeopathy scientifically and in 1867 presented his study in the meeting of the BMA. But his appreciation for Homeopathy agonized the British. As a consequence, he was expelled from the Association. His practice also got affected and the authorities tried their best to stop his practice. He was deeply saddened by this development. He felt that the British gave him the scientific vision, the reasoning, and with this he could see the truth and had the courage to stand for it. For one year his clinic was almost closed. The BMA's journal stopped publishing his articles. This started a sort of churning within him and consequently in 1868 he started 'The Calcutta Journal of Medicine', India's first scientific research journal. He started it with a special mention of Charak Samhita where Maharshi Charak says, "that alone is the right medicine which can remove disease; He alone is the true physician who can restore health."

Mahender Lal Sircar established the Indian Association for the Cultivation of Science (IACS) in 1876 with the objective to enable Indians to cultivate science in all its disciplines. With a collection of Rs.61,000, Sircar pleaded that the work of IACS should be carried on with our own efforts, unaided by the government. In a timespan of only few years, IACS set-up seven sections in general physics, chemistry, astronomy, systematic botany, systematic zoology, physiology, and geology. The establishment of the Indian Science Congress Association (ISCA) in 1914 was another major landmark. ISCA was a common forum for scientists working in different parts of the country.

Pramatha Nath Bose

(1855-1934)

P.N. Bose was a geologist and one of the pioneers to ask for more extensive science education. In 1894, he wrote 'A History of Hindu Civilisation Under the British Rule'. He was appointed as a graded scientist in the Geological Survey of India. He was the first Indian to get this job in the organisation. He graduated in Science from London University and passed out from the Royal School of Mines in 1878. During his years as geologist with Geological Survey of India (GSI) he discovered, along with many other remarkable discoveries, iron ore mines in Dhulli and Rajhara in Madhya Pradesh.

The then Director of Geological Survey of India, H.B. Medlicott was not pleased to see an Indian appointed as a graded scientist. After his retirement, Pramatha Nath was to become the next Director; but the post was given to a British officer who was ten years junior to him and much less qualified. Medlicott at that time had said, "Indians are incapable of any original work in natural science. So let us exercise a little discretion with our weaker brethren and not expect them to run before they can walk." This was an insult for the country which had an abundance of scientific brilliance. Consequently, Bose resigned from his post in 1903.

After resigning from Geological Survey of India, Bose came in contact with Jamsetji Tata. The Maharaja of Mayurbhanj was also interested in the mining industry. Pramatha Nath was appointed by the Maharaja as his geological adviser. The most remarkable achievement of Bose's life was to discover deposits of iron ores in the Gorumahisani Hills of Mayurbhanj. The Maharaja of Mayurbhanj, along with Pramatha Nath, got in touch with Jamsetji Tata. It was Bose who had shown the location to Tata where Tata Iron and Steel Company at Sakchi(now Jamshedpur) was to be established. In 1907 Dorabji Tata fulfilled his dream and established the company.

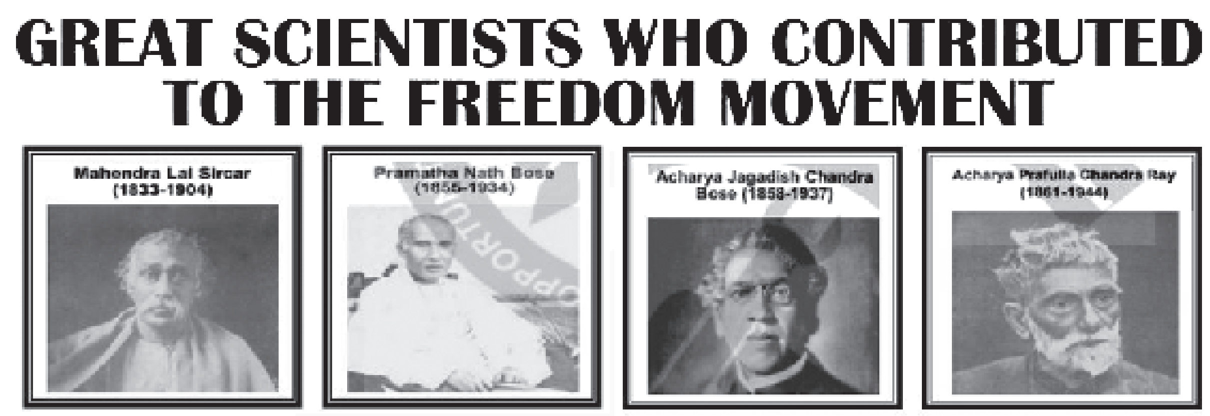
Acharya Jagadish Chandra Bose (1858-1937)

Sir JC Bose should be considered the first non-violent freedom fighter. As the Sepoy Mutiny of 1857 was the First War of Independence against the British rule, the protest of Jagadish Chandra was the first non-violent protest against British misrule, which he won. Bose fought both with the British administrators and the European scientists to establish himself as a plant physiologist. He was not easily accepted in Oxford. He manufactured his own instruments and appointed local artisans to develop the instruments he needed.

Bose received his bachelor's degree from St. Xavier's College, Calcutta. Father Lafont, a Belgian priest and professor at the college, initiated Bose in the study of natural sciences. Physics was earlier called natural philosophy. After getting his B.Sc degree from Calcutta University, he went to England to study medicine, which he could not pursue because of his ill health. He shifted to Cambridge to study Tripos in the natural sciences, namely, physics, chemistry, and botany. He graduated in 1884 and simultaneously also graduated in Bachelor of Arts from the University College of London.

In 1904, Lord Rayleigh received Nobel Prize for the discovery of argon gas. He was the president of the London's Royal Society. He had sent a letter of recommendation for his brilliant student, Jagadish Chandra Bose, and suggested that he should be allowed to teach Physics. When he applied for the job, he was told that Indians are incapable of having any rational thoughts and that is why he couldn't be permitted to teach a subject like physics! Though Bose was much more qualified than most of his European colleagues, he was appointed in the Provincial Service, and that too on a temporary basis. His salary was one-third that of a professor. Bose refused to accept the salary but continued to teach at Presidency College. After three years, finally the government relented and he was appointed as a full professor with both rank and salary. This was one of his first peaceful non-violent protests that he won! His fight against injustice and discrimination was a Satyagraha like Gandhiji's Satyagraha in 1917 in Champaran, Bihar.

1894, Bose started his research work. He didn't receive any help from the British. He had set up his own laboratory and incurred all the expenditure. The research conducted by him was unparalleled; even the scientists from the European countries could not achieve the success he received. James Clark Maxwell had propounded the principle of electromagnetic waves and he needed to verify it through experiments. Till then no one in the world had generated microwaves. This was done by Jagadish Chandra for the first time in the world. He then went to London and presented his research there. However, Marconi later received the Nobel prize for the invention



Jagadish Chandra reiterated the fact that if we do not succeed in creating knowledge, we would not be honoured in the world. The British wanted to suppress this. Today, he is not only called the 'father of microwave' but also the 'father of Biophysics'. He is also considered the father of Plant Neurobiology. Jagadish Chandra can also be considered the 'father of Chronobiology', which is an emerging field. The 2017 Nobel Prize was awarded in this, and it involves researches on circadian rhythm. It was Bose who had studied this for the first time. He was the first to imagine that plants also sleep. Today the modern science accepts this, but the British tried to suppress it with all their might.

Acharya Prafulla Chandra Ray (1861-1944)

Acharya PC Ray, the father of Indian chemistry, can also be considered the father of Indian history of science. In 1902 and 1908 he wrote two volumes of History of Hindu Chemistry. The main objective of these volumes was to show that there is a continuous scientific tradition in Chemical science running right from modern period to the medieval and the ancient periods. He also founded the Bengal Chemicals and Pharmaceuticals Limited. He was also a great Sanskrit scholar who translated the twelfth and thirteenth century chemistry texts Rasendra Chintamani and Rasaprakasa Sudhakara.

Ray wrote these books to raise self-esteem in Indian people. One cannot have self-esteem without being self-sufficient. Ray thought of this in 1901. For building modern industries one needs the help of science. In 1892, with a small capital of Rs.700, he established the first swadeshi industry, Bengal Chemical Works. The company initially manufactured herbal products and indigenous medicines. In 1901, the enterprise became a limited company, Bengal Chemical and Pharmaceutical Works Ltd (BCPW). This was India's first pharmaceutical company

Ray was a staunch nationalist,and the deterioration of the Indian society due to suppression by the British pained him. He was sympathetic towards the revolutionaries and often provided them shelter and food at his factories. After his death, many revolutionaries and his colleagues mentioned his indirect support and help in manufacturing explosives.The contemporary government records mention him as a "Revolutionary in the garb of a Scientist"

In 1905, the Swadeshi Movement rose against Lord Curzon's proposed division of Bengal. However, scientists like PC Ray had already started the mission to make the country selfreliant, free, and independent in the field of science. Prafulla Chandra met Tata and told him that sulphuric acid was required for the production of steel. The country which produced a large amount of sulphuric acid had bigger GDP. He wanted to produce sulphuric acid in India so that the GDP could be higher. In 1901 Prafulla Chandra met Mahatma Gandhi for the first time in the house of Gopal Krishna Gokhale. Prafulla Chandra developed great reverence for Gandhiji at this very first meeting. Gandhiji's simplicity, patriotism and devotion to duty appealed to him very much. Gandhiji also had great regard for Prafulla Chandra. He knew how hard he worked to help the poor and the needy.

Acharya Prafulla Chandra Ray created a new generation of Indians that included Satyendra Nath Bose, Meghnad Saha, Shanthi Swarup Bhatnagar, and Chandrasekhar Venkata Raman. These luminaries dedicated their lives developing science in the country. This second generation of the scientists made the Golden Period of Indian Science a reality. From 1910 to 1930, the modern science rose to the new heights. In 1924 Satyendra Nath Bose published his research paper which drew Einstein's attention. On the basis of that Bose-Einstein condensate was developed and it helped Quantum Physics immensely. In 1928, Chandrasekhar Venkata Raman presented his research work to the world and received Nobel Prize in 1930. This period is also remembered for other great scientists like Srinivasa Ramanujan, Meghnad Saha, Sisir Kumar Mitra and many more.

THE REVOLUTION EXPRESS

9 Famous People Who Will Inspire You to Never Give Up

(Written By – Our Correspondent)

"Never give up." It's probably one of the most cliché phrases you'll hear as you're building your career. But there's a reason these sayings are clichés—you never know when success really does lie around the next corner.

We know believing that is easier said than done, so we collected the following stories of famous celebrities who definitely never gave up, including Sarah Jessica Parker, Stephen King, and J.K. Rowling, for starters.

All these folks are now household names, but they didn't become one easily. Some lived in their car, others suffered family abuse, and almost all encountered rejection after rejection professionally and personally—before finally landing a foot in the door. Read on and get inspired!

1. J.K. Rowling

J.K. Rowling had just gotten a divorce, was on government aid, and could barely afford to feed her baby

in 1994, just three years before the first Harry Potter book, Harry Potter and The Philosopher's Stone, was published. When she was shopping it out, she was so poor she couldn't afford a computer or even the cost of photocopying the 90,000-word novel, so she manually typed out each version to send to publishers. It was rejected dozens of times until finally Bloomsbury, a small London publisher, gave it a second chance after the CEO's eight year-old daughter fell in love with it.

2. Stephen King

King was broke and struggling when he was first trying to write. He lived in a trailer with his wife—also a writer—and they both worked multiple jobs to support their family

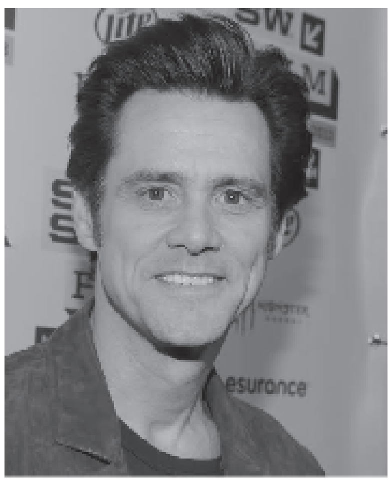
while pursuing their craft. They were so poor they had to borrow clothes for their wedding and had gotten rid of the telephone because it was too expensive.

King received so many rejection letters for his works that he developed a system for collecting them. In his book On Writing, he recalls: "By the time I was 14...the nail in my wall would no longer support the weight of the rejection slips impaled upon it. I replaced the nail with a spike and kept on writing." He received 60 rejections before selling his first short story, "The Glass Floor," for $35. Even his now best-selling book, Carrie, wasn't a hit at first. After dozens of rejections, he finally sold it for a meager advance to Doubleday Publishing, where the hardback sold only 13,000 copies—not great. Soon after, though, Signet Books signed on for the paperback rights for $400,000, $200,000 of which went to King. Success achieved!

3. Jim Carrey

When Carrey was 14 years old, his father lost his job, and his family hit rough times. They moved into a VW van on a relative's lawn, and the young aspiring comedian—who was so dedicated to his craft that he mailed his resume to The Carroll Burnett Show just a few years earlier, at age 10—took an eight-hours-per-day factory job after school to help make ends meet.

At age 15, Carrey performed his comedy routine onstage for the first time—in a suit his mom made him—and totally bombed, but he was undeterred. The next year, at 16, he quit school to focus on comedy full time. He moved to LA shortly



after, where he would park on Mulholland Drive every night and visualize his success. One of these nights he wrote himself a check for $10,000,000 for "Acting Services Rendered," which he dated for Thanksgiving 1995. Just before that date, he hit his payday with Dumb and Dumber. He put the deteriorated check, which he'd kept in his wallet the whole time, in his father's casket.

4. Tyler Perry

Perry had a rough childhood. He was physically and sexually abused

growing up, got kicked out of high school, and tried to commit suicide twice—once as a preteen and again at 22. At 23 he moved to Atlanta and took up odd jobs as he started working on his stage career.

In 1992 he wrote, produced, and starred in his first theater production, I Know I've Been Changed, somewhat informed by his difficult upbringing. Perry put all his savings into the show and it failed miserably; the run lasted just one weekend and only 30 people came to watch. He kept up with the production, working more odd jobs and often slept in his car to get by. Six years later, Perry finally broke through when, on its seventh run, the show became a success. He's since gone on to have an extremely successful career as a director, writer, and actor. In fact, Perry was named Forbes' highest paid man in entertainment in 2011.

5. Sarah Jessica Parker

Parker was born in a poor coal-mining town in rural Ohio, the youngest of four children. Her

parents divorced when she was two, and her mother remarried shortly thereafter and had an additional four children. Parker's stepfather, a truck driver, was often out of work, so the future starlet took up singing and dancing at a very young age to help supplement her mom's teaching income and feed their 10-person family.

Despite hard times and occasionally being on welfare, Parker's mom continued to encourage her children's interest in the arts. The family moved to Cincinnati, where Parker was enrolled in a ballet, music, and theater school on scholarship. When she was 11 years old, the family took a trip to New York City so Parker could audition for a Broadway play. The trip was a success—she and her brother were both cast, and the family relocated to New York. Parker continued to work hard and land roles, eventually becoming the title character of TV juggernaut Sex and the City.

6. Colonel (Harland) Sanders

Colonel Harland Sanders was fired from a variety of jobs throughout his career before he first started cooking chicken in his roadside Shell Service Station in 1930, when he was 40 years old, during the Great Depression. His gas station didn't actually have a restaurant, so he served diners in his attached personal living quarters.

Over the next 10 years, he perfected his "Secret Recipe" and pressure

fryer cooking method for his famous fried chicken and moved onto bigger locations. His chicken was even praised in the media by food critic Duncan Hines (yes, that Duncan Hines). However, as the interstate came through the Kentucky town where the Colonel's restaurant was located in the 1950s, it took away important road traffic, and the Colonel was forced to close his business and retire, essentially broke. Worried about how he was going to survive off his meager $105 monthly pension check, he set out to find restaurants who would franchise his secret recipe—he wanted a nickel for each piece of chicken sold. He drove around, sleeping in his car, and was rejected more than 1,000 times before finally finding his first partner.

7. Shania Twain

Twain's career actually began more out of necessity than raw ambition. Her parents divorced when she was two, and she rarely saw her father. Her mom and stepfather, to whom she grew close, often couldn't make enough to get by, so Twain started singing in bars to make extra money when she was just eight years old.

She recalls her mother waking her up at all hours to get up and perform. Sadly, when she was 21, her mother

and stepfather were killed in a head-on car accident with a logging truck on the highway. Twain put her career on hold to step in and take care of her three younger siblings (who were in their teens at the time). She sang in resorts and put off going after big-time stardom until her sister and brothers were old enough to care for themselves. Only once her youngest brother graduated high school did she feel OK heading down to Nashville to pursue her career.

8. Emily Blunt

Before Blunt was getting nominated for Golden Globes and landing leading roles on the stage and big screen, she could barely carry a conversation with her classmates: Between ages seven and 14, Emily had a major stutter. As she told W

magazine, "I was a smart kid, and had a lot to say, but I just couldn't say it. It would just haunt me. I never thought I'd be able to sit and talk to someone like I'm talking to you right now."

But that all changed when one of her junior high teachers encouraged her to try out for the school play—a totally unappealing feat given the fact that she had such a hard time communicating. But the teacher kept gently pressing and suggested she try accents and character voices to help get the words out—and it worked. By the end of her teens, Blunt had overcome her stutter and went on to achieve the successful career she has now.

9. Oprah Winfrey

Oprah's dealt with a lot throughout her public life—criticism about her weight, racism, intrusive questions about her sexuality, just to name a few—but she never let it get in the way of her ambition and drive. When you look at her childhood, her personal triumphs are cast in an even more remarkable light.

Growing up, Oprah was reportedly a victim of sexual abuse and was repeatedly molested by her cousin, an uncle, and a family friend. Later, she became pregnant and gave birth to a child at age 14, who passed away just two weeks later. But Oprah persevered, going on to finish high

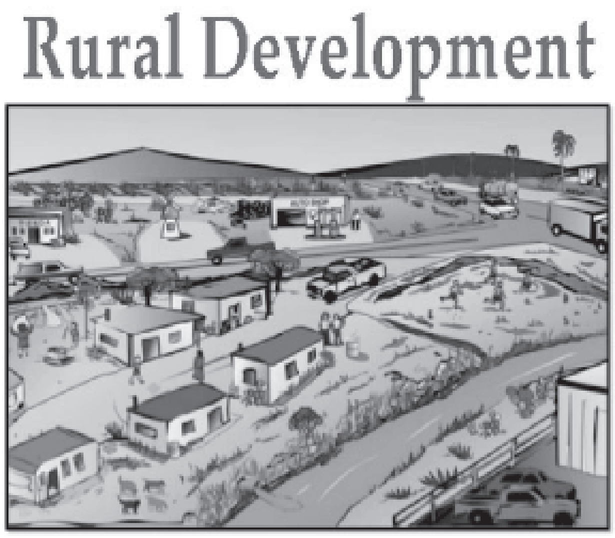
school as an honors student, earning a full scholarship to college, and working her way up through the ranks of television, from a local network anchor in Nashville to an international superstar and creator of her OWN network (we couldn't help ourselves).

THE RURAL DEVELOPMENT COLUMN

HOW TO ACHIEVE A SUSTAINABLE RURAL DEVELOPMENT - LAND STEWARDSHIP

(Written By – Our Correspondent)

Over the last years rural activity or farming has faced several hurdles as regards development and evolution. Generational transfer is one of the problems, though not the only one or the most serious. There are still grave disparities all over the world between urban and country life. Rural development is about a process that seeks social change and sustainable economic development for the rural community´s ongoing progress. The ultimate goal is to improve their life quality and preserve the environment.



There are three basic needs in rural development for a sustainable future:

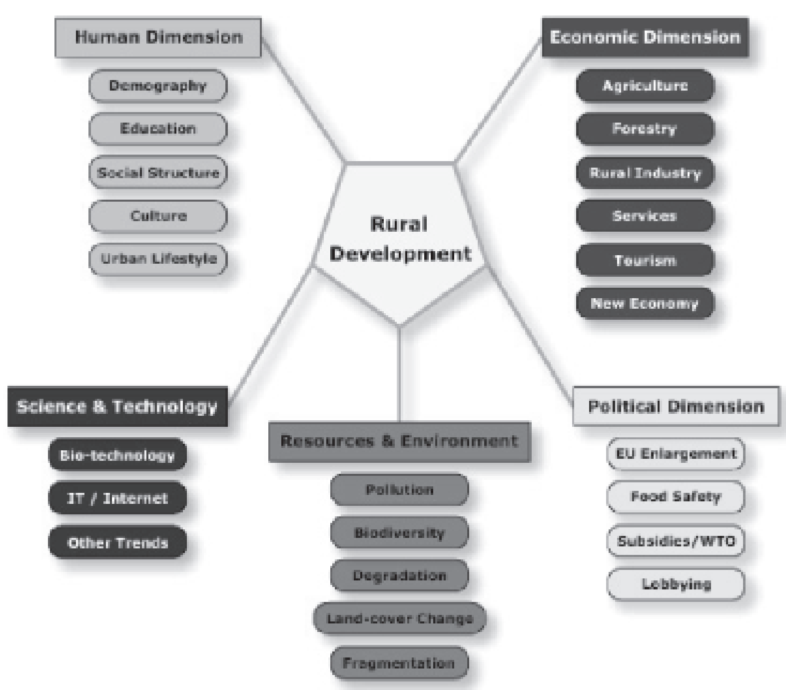
1. Improving millions of people´s welfare that live in the country (nearly half of the world population), thus reducing the rural-urban gap, stamping out poverty and preventing city migration.

2. Protecting and preserving natural, landscape and cultural resources.

3. Ensuring universal access to food with a sustainable farming production.

The 2013 World Monitoring Report of the Millennium Development Goals (MDGs) confirmed that the rural-urban gap still existed in the whole world. Illiteracy, lack of health care or poverty are some of the common problems affecting the country. Despite all these, international aid for rural areas has decreased two thirds in the past decades.

Unsustainable behaviours and practices in the country have now become widespread. FAO (Food and Agriculture Organisation) describes a series of challenges in the Sustainable Agriculture and Rural Development (SARD) process, namely: ensuring a sustainable diet for present and future generations; offering steady and sustainable jobs; reducing the vulnerability of the farming sector; maintaining or increasing the productive and regenerative capacity of natural resources.



Achieving these goals is not an easy task and requires the so-called New Rural Culture for a transition to sustainability. In this New Rural Culture, it is important to appreciate the role of the rural world in the preservation of nature, create a local consumption culture, facilitate the formative and management resources for a sustainable economy, make urban societies aware of the importance of rural areas, and so on.

Land stewardship

This notion arose in the nineteenth century in the United States, but it was in the 1980s when it became an important tool for protecting and preserving nature in the face of industrial development.

It is about a set of strategies designed to make landowners and land users engage in preserving and making good use of nature. This becomes possible through stewardship agreements between land users and its owners. These agreements, which are voluntary, are under a legal framework's protection, where stewardship entities – that are non-profit-making – look after the land.

These agreements often lead to the creation of land pools which are designed to perform more improvement and preservation actions. Land pools in Europe have their origins in Germany and have been in operation for 30 years now. Spain has passed legislation for using this tool as a way of protecting biodiversity.

Good land stewardship promotes a sustainable rural development, where the economic base of rural areas improve, the environmental and cultural heritage is protected and preserved, and ultimately enhances the life of the rural population.

Credit and Banking in Rural Areas

(Written By – Our Correspondent)

You must be aware of the horrible trend of farmer suicides in our country. This is evidence of how worse the situation is. it makes one ponder over the conditions of rural India. One of the primary culprits of this is the poor credit services and rural banks of India. Let us analyse these further.

NABARD

1. Credit System in Rural Areas

Credit is an important instrument for rural development. Most of the agricultural chores still depend on manual labour. It also involves techniques which are outdated and result in low outputs. The investment in rural areas has been on a low which effectively results in low output and productivity in all kinds of activities.

A capital infusion for a jump in productivity in reference to both agricultural and non-agricultural activities can be achieved by reforming credit and banking system. During the gestation period between sowing and harvesting seasons, farmers need credit to make ends meet, their general needs, initial requirements etc. Additionally, they also need credit to venture into modern agricultural techniques, to buy cattle, land etc.

2. The Development of Present Credit System

The difference in monetary activities of rural people relative to urban people led to the realization of NABARD (National Bank For Agricultural And Rural Development), in addition to the presence of RBI.

The post-independence period saw exploitation of rural poor in need of credit, by the hands of moneylenders and traders. Loans were granted at very high-interest rates which ultimately pulled defaulters into a debt trap, robbing them out of credit. To stop this exploitation NABARD was established to provide rural areas with easy credit. Although RBI is the national banking apex body, NABARD has been given powers that establish it as the apex banking body in rural India which regulates all the credit and banking activities of rural India.

3. Helping Hand of SHGs

Although NABARD has been proving to be a step in the right direction, the problem with formal banking system is that some kind of collateral is required. The rural poor in need of urgent credit, don't generally possess any collateral. Consequently, they are ruled out of the formal banking system. To help such kind of people self-help groups (SHG) emerged on the scene. They are successfully bridging the gap between formal credit system and rural poor.

Such groups dispense small credit to the needy members, who need to provide a minimum sum to the pool initially. Then loans can be taken from the sum collected at very cheap interest rates. For this reason, by March-end 2003, more than seven lakh SHGs were reported operational. Such credit provisions are referred to as micro-credit programmes.

4. Rural Banks

The banking and credit system in rural India has come a long way. With credit available at low-interest rates through operation of NABARD and microcredit generation by the various self-help groups, less poor are falling into the debt trap. After the advent of the green revolution, productivity in agriculture increased manifolds. In essence modern techniques, high yielding variety seeds, sustainable activities etc. have been promoting productivity and output.

But the formal banking system has been proving inadequate in lending to worthwhile borrowers and effective loan recovery. By and large, the number of loan defaulters is rising. The poor are forced to look in direction of informal moneylenders, who exploit them. Hence some changes are required.

5. Spectrum of change

The rural banks need to establish a banking relationship with the people and scrap away the image of just money lenders. The banking system in rural India needs a reform, considering the difference in livelihoods of urban and rural people. Leniency on the part of the government in the collection of taxes inculcated a habit of not repaying borrowed amounts among people which needs to be altered. Banks need to educate people about thrift generation and efficient utilization of financial resources to become feasible again.

MIRACLE HORMONE – MELATONIN

By - Prabhu Prasad Gadnayak

PA To Secretary, State Election Commission, Odisha

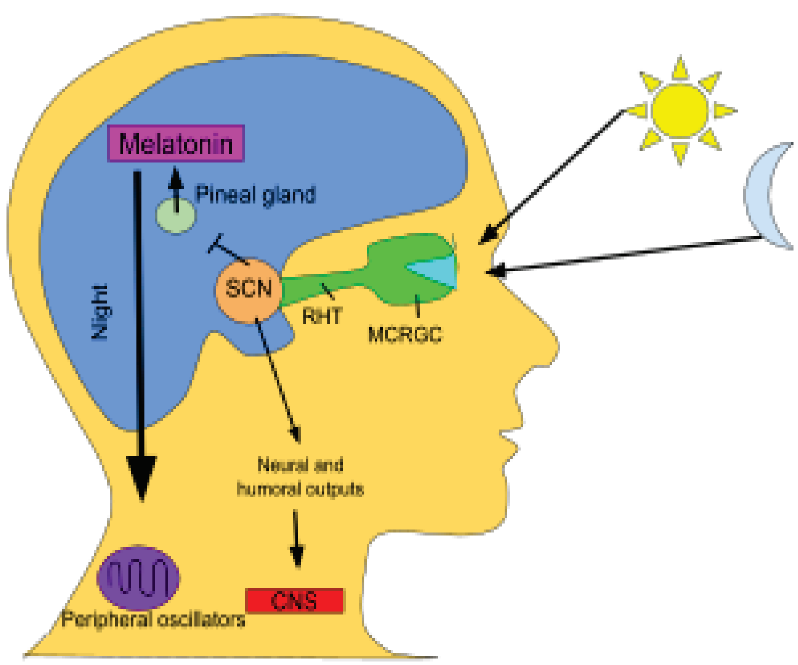
Recently from 1980 onwards scientists have done great exciting breakthrough of this Millennium by discovering secretion of Miracle Hormone from Pineal Gland the 'MELATONIN'.

Pineal Gland is situated at the center of the brain just behind Thalamus size of ½ cm., weight 120 mg. usually it dries up at the age of above 40.

If one draws a straight line at the root of nose between two eyebrows it will reach to the pineal gland. So, Sri Sri Thakur gave instruction to fix attention at the root of nose and repeat the Holly Name i.e. chanting the Holy Name.

Vibration by chanting Holy Name will stimulate pineal gland for more secretion of melatonin. The melatonin helps to slow down ageing process, prevent diseases by secreting antibody by boosting immune system, by boosting energy level to keep youthfulness long time.

To survive long time without



diseases, without loosing memory which organ of the body is responsible ? We didn't know it since centuries.

Lord Buddha at the peak of His youth left the golden throne, lovely beautiful wife, and affectionate son to earth out the way to prevent ageing process, diseases and premature death. Cloud He find out the way ? Yes, He found the way through meditation. His ideology was spreaded worldwide.

For a long time scientist neglected two glands of our body, pineal gland and appendix. But Sri Sri Thakur told that no part of our body is useless.

Melatonin, which is produced naturally by human brain helps us to live longer, sleep better, overcome stress and strain of life, boost immune system to keep body disease free and helps to maintain blood pressure at normal level.

Melatonin acts as a powerful Antioxidant – prevent early oxidation of the cell of our body, it prevents early wrinkling and heart diseases also.

Oxidation is the reason for non rusting paint fading and oil furnishes rancid in the body. It is one of the most common causes of cellular damage, breaking down complex and delicate chemical compounds necessary to life and health.

Secretion of melatonin acts as an anti-oxidation, prevents rusting of cells, which stops chemical damage of oxidation. By blocking oxidation of cells, melatonin prevents changes in blood vessels i.e. atherosclerosis changes of blood vessels which cause hypertension and heart attack and it may reduce attack of cancer and memory loss.

All health problems develop due to ageing process and it is due to the deficiency of melatonin.

To maintain youthful life, to keep it for a long time and disease free with intact memory and every thing, it is necessary to depend on continuous secretion of melatonin.

Stress and strain of life and different drugs can reduce secretion of melatonin, can even shut down such secretion and pre-maturely starts ageing process. Many drugs as Alpha and Meta-Blocker, Painkiller are NSAID (Non-Steroidal Anti-Inflammatory Drugs).

Other less harmful drugs include Stimulant, Sedative and Benzo-Diazepine such as Valium and Librium, Birth Control Pill, Estrogen replacement, Therapy,

ACE Inhibitor and Thyroid Pills.

Also other less harmful effects like electromagnetic field emitted by household gadgets from coffee maker to computer has powerful effect on pineal gland secretion, some times shutting down melatonin secretion completely.

Light and Darkness regulate secretion of melatonin. So it is called a Biological Clock. The pineal gland is connected to eyes through nerve. The onset of darkness transmits a signal to pineal gland for production of melatonin. When we feel sleepy in the evening it is due to secretion of melatonin pumping in blood stream. So, it is called natural sleeping pills. Again in the morning bright light hitting the retina of eye shut down melatonin secretion completely.

The Message given by Sri Sri Thakur_

Do meditate Mantra on thy Lord

Dawn and night,

Do repeat the Holy Name

Mentally and meaningfully

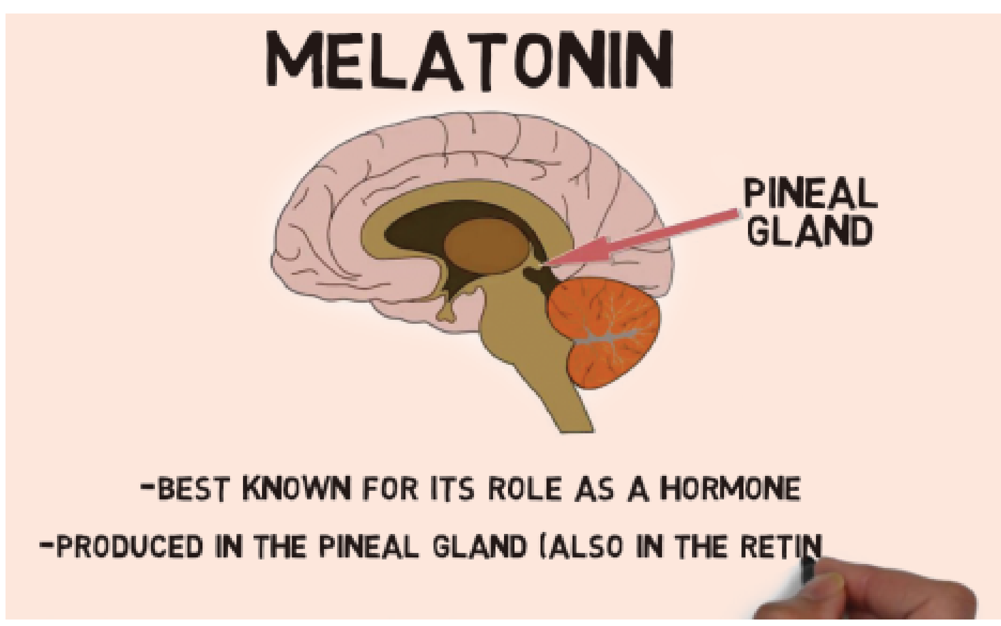
In all movements of daily life,

Do materialize the directions

Of the Guru (Spiritual Guide) in time

That is Tapas

The way to achievement !



Can be applied in this way ! Vibration by chanting of Holy Name stipulates the Pineal Gland for secretion of Melatonin. So, Sri Sri Thakur told during meditation one would feel sleepiness. By meditation all stress and strain of life can be overcome, nervous system will cool and adjusted normally by the help of melatonin.

Swami Vivekananda said that to carrying out the order of Guru without least shadow and hesitation is only the way of success.

Usually above 40 years of age Pineal Gland gradually stops secretion of Melatonin, according to various opinions of scientists. However, Sri Sri Thakur has given instruction for meditation right from childhood. Continuous stimulation and vibration of meditation will keep Pineal Gland alive and active even many years above 40 years of age.

Autonomic Nervous System is an efferent system that innervates vascular and smooth muscle exocrine glands, a Parenchyma Cells through out the various organ systems functioning below conscious level. The autonomic nervous system responds rapidly and continuously to perturbation that threats our constancy of the internal environment. Foremost among the functions governed by the system are the regulation of blood flow and the maintenance of the tissue perfusion, the regulation of blood pressure the regulation of Vol. Composition of extracellur fluid, the expenditure of metabolic energy and supply substrate and activity, visceral smooth muscle and glands. The automatic neurons located in ganglia outside, center nervous system and there are pre-ganglionic neurons of Para-sympathetic nervous system.

A Neuro transmitter as ACETYCHOLINE is pre-ganglionic for both division of automatic nervous system so it is called Cholinergic (Para-sympathetic).

All naturally occurring Catacholamine, Norepiprephrine and Epinephrine and Dopamine function as neuro transmitter within the CNS Catacholamine maintained in high concentration in adrenal medulla. All N E present in sympathetic nerve ending.

All these neurotransmitters are essential for motor sensory coordination and to lead active life. Deficiency of Dopamine produces Parkinsonism, thymus gland controls body temperature.

Some endocrine glands like Pancreas and Pituitary Gland by their active secretion maintain youthfulness. Deficiencies of pituitary secretion cause loss of youthfulness and reduce memory. Deficiency of pancreatic is let of languor and cause Diabetes Mellitus.

It is said, that melatonin activates them all and maintain youthful life, and sharp memory. Due to motor sensory coordination there will be fewer mistakes in policy making, planning of work and its execution.

Intuition will be more accurate, perception of brain and sharpness of work will increase, and work will be finer.

Regular Meditation, Vegetarian Diet with less fat and salt with Vitamine E, C and A help to secrete melatonin regularly.

Sadguru/Prophet knows solution of all earthly problems. So, we should follow them without hesitation and doubt. One can survive more than 100 years disease free youthful life. They may acquire many things like 'Jatismar', can revive death person. Sri Sri Thakur Anukulchandra, the founder of SATSANG is the latest incarnation of God. We should follow Him and His ideology for the benefit of the Individual, Society and Country.

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