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Sri Purusottam- Jagannath : Assimilation of Myth and History

The word 'Purusottama' generally stands for Vishnu in literature but in Vaishnava philosophy, it signifies a special deity that represents different forms of

is more mysterious. He is Lord of the Universe and above all, the Gods and Goddesses. He is Anadi (without a beginning), Anakar (formless), Ananta (eternal), Nirakar (empty) and

nourishes the whole Universe. He takes away the sorrows and sufferings, kills the demons, protects the innocents and establishes Dharma on the Earth. In the beginning, Daru Brahma is Sri Purusottama and later He is Sri Jagannath. It is nothing but His will and one of the diversions. In course of time Lord Purusottama-Jagannath has become popular as Sri Jagannath from 13th century AD.

Sri Mandira, Puri is famous all the world as a sacred shrine and the holiest. Generally, the famous religious places are named after the presiding deity. The examples are Rameswar, Badrinath, Nrusinghanath etc. Similarly, Puri is commonly known 'Purusottama' for Sri Purusottama-Jagannath of Srimandir. Purusottama is gradually called 'Purasthama'.

Years passed by and 'Purusottama' is converted to 'Puri'. Today the word 'Purusottama' does not mean the deity Sri Purusottama and 'Purusottama' is accepted the Purusottama Kshetra.

The main source of Purusottama is the Vedas. In Purusa sukta it is described that the chief God is 'Purusa'. This word Purusa indicates three meanings - (1) Byakti (manifestation), (2) Jibatma (the soul), (3) Paramatma (the supreme spirit). Purusa sukta also narrates that Purusa has countless legs, heads and eyes. He covers the whole Universe. He is omnipotent, omnipresent and omniscient. His existence is from the beginning of creation and even before. He is Paramapurusa and the Lord of the Gods. From Paramapurusa, Virat (the first progeny of Brahma) is originated and from this source Jibatma (soul) created. This Virat is present in Deva (the god), Manusa (human being) and Pasu (animal). Paramapurusa has prepared the Earth and the body. Purusa of the Vedas is Sri Purusottama- Jagannath. In another sukta (hymn), the Rig Veda clearly speaks of Darubrahma Purusottama, “Adou jaddaru plabate sindhohpare apurusam, tadarbhaswa durhano tena gaccha parastaram.” (Rigveda, 10 - 15-03) Shayan-acharya, well versed in the Vedas describes, 'The body of the God floating on the waters, no one is its



builder. For this, He is a Apurusaya. By worshipping this Daru Devata, a devotee attains salvation.” The four deities i.e. Balabhadra, Jagannath, Subhadra and Sudarshan are the imagination of four legs of Purusa of the Vedas. It is presumed that Daru Brahma Sri Purusottama-Jagannath has been worshipped in Sri Kshetra from the Vedic age and before. Darubrahma is also mentioned in the 'Swetaswetera' and Kaibalya Upanishad,

Tamahuradhyam purusham mahanta

(He has no legs, walks fast, no hands but receives. He has no eyes, but looks at the whole world, no ears but lightens to the prayer of the votaries. He understands all but nobody understands Him. People address Him 'Purusottama'). He is,

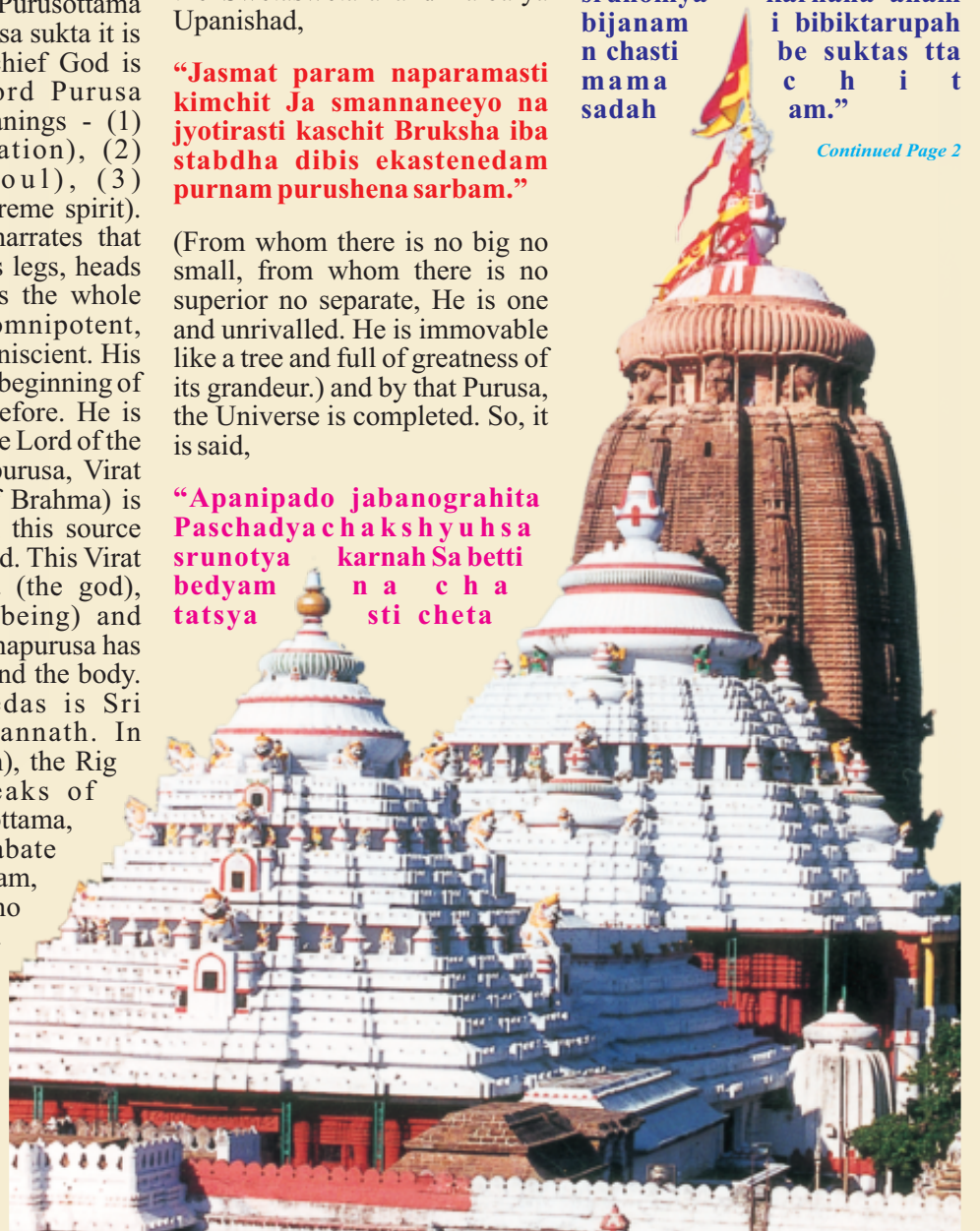
“Apanipadoham chintyashakti pasyamyachakshyuscha srunomya karnaha aham bijanam i bibiktarupah n chasti be suktas tta mama c h i t sadah am.”

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“Jasmat param naparamasti kimchit Ja smannaneeyo na jyotirasti kaschit Bruksha iba stabdha dibis ekastenedam purnam purushena sarbam.”

(From whom there is no big no small, from whom there is no superior no separate, He is one and unrivalled. He is immovable like a tree and full of greatness of its grandeur.) and by that Purusa, the Universe is completed. So, it is said,

“Apanipado jabanograhita Paschadya chakshyuscha srunoty karnah Sa betti bedyam n a c h a tatsya sti cheta



Vishnu like 'Narayan, Madhab, Damodar, Sri Krishna etc. Darubrahma Sri Purusottama has been worshipped in Srimandir, Puri from ancient times up to 13th century AD. Then, He is popularly accepted as Sri Jagannath. The exact date of consecration of Sri Purusottama in the temple is still an imagination and not a conclusive evidence, because history fails to provide the exact time line. Sri Purusottama Himself is a mystery and His Lila (diversion)

the Brahma (the Supreme Being) or the mystic syllable of AUM. The temple of Sri Purusottama Jagannath is Srimandir, Puri. This is a famous tirtha (a sacred shrine) named as Sankhaksheeta, Purusottama and Nilachaladhama. Even Brahma, the creator fails to ascertain the beginning and end of Sri Purusottama-Jagannath. So, it is beyond the imagination of a common man to describe His Superhuman power in words. Sri Purusottama- Jagannath



It is clear from the Vedas and the Upanishad that Sri Purusottama has been adored in Srikshetra from the time immemorial and later, He is worshipped as Sri Jagannath.

The name of Lord Jagannath is written in Utarakanda of the great epic, the Ramayan that Sriramachandra, at the time of His eternal sleep blessed Bibhisan, the younger brother of demon Ravan and advised him to worship the family god Jagannath of the Ekhwaku dynasty.

“Kanchanya daktumichhami rakshyasendra mahanagha Pujaya shree Jagannathamikshyaku – kuladevatam.”

Accordingly, among other rituals of Sri Jagannath, 'Bibhisana Bandapana' is also important one and it still continues without any interruption.

The description relating to Sri Jagannath is there in the Shantiparba of the 'Mahabharata'.

“Naraden tu sampraptah sarahasya Sasamgraha Eppo dharmah Jagannathat sakshyata Narayanat nrupah Eba mesho mahadharmah satat purba Nrupottamah Kathito hari geetasu samasabidhi kalpitah.”

From these narrations the antique of the Jagannath religion is well imagined. The essence of Purusottama tatwa (substance) is analysed in the Bhagabad Geeta and the name of Purusottama is written,

“Dwabimou purusou lokekshyaraschakshyara ebacha Kshyarah sarbani bhutani kutatmetyu dahrutah,

Yasmat kshyaramatito-ham kshiradapi uttamah Atosmi loke vede cha prathitah Purusottamah.”

Purusottama is renowned in the Vedas and is very much popular among the people. The devotees address Him Purusottama and from the point of the Supreme spirit He is Purusottama. The same theory is philosophically described in the Bhagbad Geeta. This is the opinion of a great litterateur, Nilakantha Das. The verses Ananta, Debasha and Jagannibas are related to Balabhadra and Jagannath. Keeping in view the above facts, it is clear that in Loka (one of the three great divisions of the Universe) is Purusottama and from the angle of knowledge of truth He is Purusottama.

Some ancient literature like drama and mythology bears the story of Sri Purusottama-Jagannath. History is not silent in this respect. In the 'Natyashastra' of Bharata, an important episode is Laxmi Swayambar (a form of marriage in which a maiden chooses her husband).

Urvashi (the heavenly nymph) acts as Laxmi. While delivering the dialogue Urvashi by mistake utters 'Pururaba' instead of Purusottama. Bharata is annoyed and has cursed Urvashi.

Hence, it is justified to say that during the times of Bharata, Purusottama Kshetra had become prominent. Matsya Purana is the oldest mythology written before the 3rd century AD. This mythology says, “Gayayatha mangala namo bimala Purusottama.” It indicates that during the 3rd century Sri

Purusottama was popular. In a copper-plate grant of Raja Sridharana of south-east Bengal, Sri Purusottam is depicted as Srashta (the creator), Dhata (an epithet of Brahma) and Samharkarta (the destroyer). According to some historians, this copper-plate grant is of 7th century A.D. and by this time Sri Purusottama has been famous. Some historians opine that Sri Vishnu Purusottama is worshipped at Puri but not elsewhere in Bharat Varsha. They have not hesitated to say that Purusottama mentioned in the said copper-plate grant is of Sri Kshetra, Puri and by 7th Century AD the place has become a popular sacred shrine. In the Neulpur edict of Subhakumar Dev of Bhoumya dynasty provides an important information that a Brahmin named Purusottama donated landed property to another Brahmin Balabhadra. It is believed that in the 7th century Purusottama and Balabhadra were very much popular Gods.

Murari Mishra, a famous dramatist and poet of 9th century AD has written 'Anargha Raghava'. Purusottama is the tutelary deity of Murari Mishra and his drama is staged in Purusottama Mandir and no doubt that Purusottama Mandir is Sri Mandir, Puri. Hence, it is inferable that Purusottama is known in Tribhuban i.e., heaven, earth and nether regions by 9th century and has been adored as Ramaraman or Laxmikanta (the husband of Laxmi). Record says that Jagad Guru Shankaracharya came Puri to have a Darshan of Sri Purusottama in the mid of 8th century. If Purusottama Kshetra would have not been prominent, Shankaracharya may have not come to the sacred shrine. He has preached the doctrine of Adwetabad (Pantheism). For many years the images of Shankaracharya and his disciple Padmapadacharya were on the Ratna Simhasan of Srimandir and in 18th century A.D. those images were shifted from Ratna Simhasan. Purusottama, a prominent lexicographer of Utkal has included Jagannath in the forms of Vishnu in his dictionary 'Trikantha Shesa'. In his times Jagannath has been venerated as the Vedic God. Madalapanji, the chronicle of Srimandira is the valuable document of Sri Jagannath though in certain places some exaggerations are marked. Many historians refer to this while writing the history of Srimandira and Sri Purusottama-Jagannath. In this chronicle, the episode of Raktabahu's attack on Sri Mandir is described that Gajapati king and the priests were not able to give protection to Sri Purusottama-Jagannath from the attack of the furious and powerful invader Raktabahu and compelled to hide the Trinity – Balabhadra, Jagannath and Subhadra under the earth at Sonepur. The Raja Jajati (I) of Soma dynasty has consecrated the deities again on Ratna-Simhasan and constructed a new Jagannath temple at Puri. This is clearly mentioned in the Madalapanji and the historical truth is yet to be established because not a single concrete document like copper-plate grant is made available to this effect. The Raja Gangeswar Anantabarman Chodaganga Dev renovated the old, shrivelled temple and constructed a new one. This is written in Rajrajdev copper-plate grant. This historical document says,

“Prasadam Purusottamasya nrupteh, ko nama karttum kshyamah tasye tyadya nrupairupekshitataya, chakredha Gangeswarah.”

It signifies that Jagannath temple, built by Chodogangadeva is not the first temple. Jajati Mahasibagupta-1 has constructed it beforehand. It is pertinent to mention that during the reign of the Ganga dynasty Sri Purusottama-Jagannath has become very much popular.

Rudrajamala a famous Tantric scripture is written in the 10th century AD. This scripture speaks,

“Sa Pasyati Jagannathanam Kamalorugatam Harim.”

In other Tantric scriptures, the name of Jagannath is also mentioned. Krushna Mishra is the writer of the drama 'Prabodha Chandradwaya'. In his drama he has described about Purusottama kshetra. Krushna Mishra is a brilliant erudite in the royal court of the Raja Kirtiburma from 1050 to 1070 AD. The theme of the drama is a fight between Vishnubhakti and Mohamoha. The envoy narrates before Mohamoha about Purusottama kshetra and the temple of this kshetra,

“Atra prabisati patrahastapurushah. Purushah ahamkuladeshadagatoasmi.”

Asti tatra sagar bela sannibese Purusottama sadditam devayatom.”

It is prominent that Purusottama Kshetra was renowned during 11th century AD and before Chodogangadeva there was a temple for Purusottama. In the Kalidinda copper-plate grant of the Raja of Chalukya of Eastern region it is inscribed that Brahma has taken birth from the navalotus of Purusottama of Sridham. Sridham indicates Purusottama kshetra. Pujaripali rock inscriptions of Gopal Dev of Madhya Pradesh and Nagapur eulogy of Laxman Dev, the description of Purusottama is well marked. Gopal Dev has ruled over Vilaspur region towards the end of 11th Century A.D. He has built any of the temples of Purusottama. He is praised as Purusottama for his bravery and heroism. The eulogy of Laxman Dev of Nagpur is also compiled in 1104 AD and the name of Purusottama is found there. During the 12th Century AD the fame of Sri Purusottama-Jagannath spread over Bihar and this is observed from Govindapur rockinscription. It states that Rudraman was the Raja of Gaya, Bihar. His poet Laureate was Gangadhar. His father Manorath had been to Purusottam Kshetra on pilgrimage (1210), completed the obsequies in the honour of his deceased ancestors on the day of Lunar eclipse and donated all his riches.

Another event, related to Purusottama Dham is that a temple is on the top of the hill Maihar, built in the memory of Damodar and offered to Devi Sarasvati. A rock inscription is on the body of the temple and it reveals that Damodara had been on pilgrimage to Purusottam Kshetra of Udrarastra. He lost his life while bathing in the sea at Puri. His father was deeply shocked for this woeful mishap and constructed the temple in the memory of his departed father. The Manihar rock inscription is of the mid of 10th century A.D.

and before that Purusottama Kshetra has had its high reputation. Pilgrims from far and near, even from Madhya Pradesh were attracted towards this tirtha for salvation. It is also mentioned in the Tantrik Scripture that a devotee achieves chaturbarga (Dharma, Artha, Kama and Moksha) if worships Purusottama. From the above discussion, it is clear that before 12th century the name 'Purusottama' was very much popular and Sri Purusottama was the most familiar name all over Bharat Varsha.

From the 13th century AD Sri Purusottama is venerated as Sri Jagannath and from this century the deity Purusottama has been accepted as Purusottama kshetra. Nilamadhab, the deity of the Sabar tribal becomes the God of the Aryans and named Sri Purusottama. Equally some

Gojapati kings have presented themselves as the servant of the Almighty Sri Purusottama. Anangabhima Dev-III has declared himself as 'Purusottama Putra' (the son of Purusottama) and his empire 'Purusottama Samrajya'. It is made clear that from 13th century Sri Purusottama is accepted as Sri Jagannath and Purusottama is confined to the Kshetra only.

Sri Purusottama has been worshipped in Srimandir with Kamala or Laxmi from the beginning. This is narrated in some mythologies, scriptures, dramas and other pieces of literature. Different Tantric scriptures also speak the same, 'Kalarugatam Harim'. Among Jagannathtrinity Devi Subhadra is Kamala. It is established in 'Skanda Purana', “Tasya Saktiswarupeyam Bhabani Stree Prabartika.”

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The Great Bathing Rituals of the Trinity, The Maha Snana Of the Trinity

The Snana Jatra, is the bathing festival of deities celebrated on the purnima (full moon day) of the Hindu month of Jyeshtha. It is the auspicious birthday of Lord Jagannath. It is a sacred festival for Hindus. This is the first occasion in the year as per the Hindu calendar,



when the deities Jagannath, Balabhadra, Subhadra, Sudarshana, and Madanmohana are brought out from the Jagannath Temple and taken in a procession to the Snana Bedi. The Brahma Purana, Skanda Purana, Padma Purana, Bamdev Samhita, Niladri Mahadaya and Yatra Bhagavat etc have described in detail about this bathing journey. The first journey among them is the bathing journey, every year; the first full moon is called the Bathing ritual of Lord Jagannath. On the day of the Snana Yatra, the deities are bathed with 108 pots, of ritually purified water drawn from the northern well of the temple to the accompaniment of religious incantations. It is a belief among devotees of Lord Jagannath that if they make a pilgrimage to see the deity on this day, they would be cleansed of all of their sins. Thousands of devotees visit the temple on the occasion. The Skanda Purana mentions that King Indradyumna arranged this ceremony for the first time when the idols of the deities were first installed. According to the scriptures, for the Lord's bath, the holy water of all the shrines in India was collected and kept in a golden bowl. But in course of time, the water collected in the said golden vessel was immersed in the well in front of the temple of Devi Sitala Thakurani. The lords are covered in silken cloth ahead of the ceremonial bath. Sandal wood paste, camphor, saffron and chua are, mixed with the holy water stored from the golden well near Devi shtiala temple. 108 earthen vessels, there is a tradition to bathe the elder Thakur Balabhadra with 33 pitchers, Devi Subhadra with 22 pitchers, lord jagannath with 35 earthen vessels and Sudarshan with 18 pots of water. In fact, the significance of this bathing journey is more than any other journey. Lord Balabhadra, Mahaprabhu Jagannath and Devi subhadra were brought out from inner sanctum in ceremonial pahandi. Here is the first glimpse of the trinity after they were placed on Sanan Mandap for the grand bathing rituals. Because it has been described in the scriptures by the creator lord Brahma that the benefits of devotees who see the Lord's bathing principle on Devasnan Purnima with devotion are indescribable than the fruit of seeing the Lord at the time of solar eclipse. Foremost among the deities is Lord Gajanan, So Adyabasha in the initial journey is the Lord's glory during the various festivals of the year, the Gajanan Basha or Hati Besa introduces the Lord to countless devotees at the bathing mandap to fulfil the desires of the countless devotee. On the eve of the Snana Yatra, the idols of the deities are brought out in a grand procession from the Garbhagriha (sanctum sanctorum) to the Snana Bedi (bathing platform). Procession is with chanting mantras and sound of Ghantas, drums, bugles and cymbals. Later during the night, the three main deities retire to the 'Anasar' House, located in the temple. During the 'Anasara' period, the devotees cannot see their Gods. According to the Hindu legends, it is believed that during the ritualistic Snana Yatra, the deities get fever and take 15 days solitary confinement. These days they take rest and medicine as like normal human beings. After getting well, the deities then appear for public viewing after 15 days, that is, the day just before the famous Rath Yatra. Behold the grand spectacles of Hati Besa of Lord Jagannath and his siblings at the Snana Bedi in puri Sri mandir, the trinity watching over the world with protective eyes. During these Anasara period the devotees flew to darshan Sri Alarnatha at Brahmagiri.



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HEALTH AND FAMILY WELFARE

New replenishment mechanism to make WHO funding flexible welcomed at World Health Assembly

Sustainable Development Goals should also discuss adolescent health, says a report presented at the World Health Assembly

Union Health Minister Mansukh Mandaviya in a meeting with WHO Director-General Tedros Adhanom Ghebreyesus on the sidelines of the World Health Assembly. Photos: @DrTedros / Twitter

Member states of the World Health Organization (WHO) welcomed a “replenishment mechanism” to help the United Nations body have more flexible funding options during the 76th World Assembly Health session held on May 25, 2023.

The mechanism is a watershed for WHO’s current funding system since **84 per cent of its funds** are sourced from generous donors including countries as well as philanthropic organisations. Of these funds, specific voluntary contributions

comprise 88 per cent of all donations, leaving no room for WHO to be flexible and shift funds as per its requirements.

This inflexible funding mechanism is seen as a threat to WHO’s ability to be financial independent and function as the leading global health coordinator.

There are two more types of funds among those donated to WHO. Core voluntary contributions are completely at the discretion of WHO to spend unconditionally and encompass 4.1 per cent of all voluntary contributions. Similarly, thematic and strategic engagement funds are partially flexible funds that make up nearly eight per cent of voluntary contributions in 2020-21.

Currently, the membership fees (assessed contributions) that countries pay to be a part of WHO are within the control of the organisation, representing 16

per cent of the total budget in 2020–2021.

On the contrary, ‘Financial resources need to be fully flexible and fully interchangeable across priorities and areas of work in order to match the priorities set,’ argues the WHO program budget (2024–2025).

What is the new replenishment mechanism?

During the assembly session, member states requested a plan for the first investment round before it commences in 2024. This will cover a four-year period from 2025 to 2028.

“A WHO replenishment mechanism would raise voluntary contributions for the part of the Organization’s base segment that is not funded by assessed contributions. Replenishment contributions would cover work by country offices, regional offices, and headquarters across all strategic priorities, as well as the enabling

functions. The upper limits of any replenishment funding envelope will thus be set by the boundaries of the general programme of work and associated programme budgets,” the feasibility report by the Working Group on Sustainable Financing explained.

The report of the Programme, Budget and Administration Committee of the Executive Board presented to the assembly urged:

Member States and other donors to ensure the full financing of the base budget segment of the Fourteenth General Programme of Work, and to continue to strive to provide WHO with unearmarked voluntary contributions consistent with the recommendations of the Working Group on Sustainable Financing adopted by the Seventy-fifth World Health Assembly.

On the same day, WHO Director-

General Tedros Adhanom Ghebreyesus presented another recent report analysing the progress made on The Global Strategy for Women’s, Children’s and Adolescents’ Health (2016-2030) adopted by Assembly in 2016.

The report questioned 194 member states on the actions they might need to implement to ensure that adolescent health is included while discussing the progress towards the Sustainable Development Goals at the 2023 SDG Summit. It also emphasised that political and financial commitments should be made at the 2023 Global Forum for Adolescents.

This is in alignment with the WHO’s work with Partnership for Maternal, Newborn & Child Health focused on developing an Adolescent Well-being Framework. It takes into account mental, physical, and social well-being for integration into WHO programs.



MANGO MUSINGS

There is general agreement among food historians that mango was born some 5,000 years ago in India. The fruit is celebrated in ancient literature, Sanskrit plays and Pali Jataka tales. It is the Tamil 'manga' that is the origin of the English term mango. Bud-dha was once gifted a mangrove by a rich devotee where he could repose in peace.

For all practical purposes, only it could be the National Fruit of India. It is also the national fruit in Pakistan, Philippines and Bangladesh.

Over 43 million tonnes of mangoes are produced globally per year. India is the largest producer of the fruit followed by China and Thailand. India produces over 18 million tonnes of the fruit per year which amounts to 50% of total mango production. However, in terms of international trade, India accounts less than 1%. India consumes most of its own mango production.

More than 1,200 varieties of mangoes are commonly grown. Some of the best varieties found in the market are Alphonso, Kesar, Langra, Chausa, Badami, Totapuri, Neelam, Dasher, Himsagar, Amrapali, Imam Pasand, Fazil, Mallika, Banganpalli etc.

Alphonso is considered as the 'King of Mangoes'. The golden yellow fruit with a red tinge has a non-fibrous juicy pulp.

Miyazaki mango is the costliest mango in the world. A kilogram of Miyazaki mango will cost you around 2.7 Lakhs.

A cup of Mango pulp provides 100% of our daily requirement of Vitamin C and other nutrients. Besides Vitamin C, Mangoes are rich in Vitamin A, Vitamin B, and other antioxidants. It helps in keeping your immune system strong enough to fight cancerous cells, bacteria and with several viruses. It also helps to keep cholesterol in control.

Over millennia, hundreds of varieties of mango have evolved or been grafted. Like roses, the work of gifted horticulturists has followed the whims of their patrons or their own fancies. The churning has been going on for centuries and about a dozen varieties have stood the test of time and emerged as perennial favourites, eagerly awaited every season. The earliest to appear in the market are sinduri and tota pari, named after the colour of their skin.

Not particularly sweet or fragrant, they enjoy their brief moment of glory till more flavourful challengers overshadow them. Safeda has an attractive yellow skin and firm flesh that has succulence and pleasant mild sweetness. Suddenly, milk shakes and juices begin to taste refreshingly different with its arrival.

**SUMMER DELICACIES**

By the end of May, dussehri begins to ripen. These mangoes have an elongated, flat appearance and the best quality has very thin stone. The name indicates that the fruit has many beneficial properties and it relieves from 10 distressing conditions (dus + haran kari). The small village of Malihabad, 25 km away from Lucknow, is renowned for its mango orchards from where the best quality dussehri is sourced. For some

official, Alfonso de Albuquerque. The story has it that someone brought a graft from Brazil and put it on a mango tree in Ratnagiri. It is believed that he was trying to create a variety that could be sliced cleanly and served at European tables. The rest, as they say, is history. Hapus is a delicate species with very thin skin that blemishes easily. The flesh is aromatic with a subtle, intriguing taste. It is the most preferred variety for use in



aficionados, no other mango, not even hapus, comes close to it. It has very little fibre and is best enjoyed sliced.

Not much later, it is the turn of Banarasi langda from Varanasi to tempt us. In Bihar and Bengal, this variety with green skin, a firm body and a seductive flavor is called langda. Legend has it that there was a mango tree in the khankah (a building designed for gatherings/spiritual retreat) of a Sufi saint in Malda, renowned for its heavenly mangoes. Once a lame pilgrim from Banaras visited this place of pilgrimage to receive the saint's blessing.

He carried a seed and a graft with him to grow the same fruit back home. It's difficult to verify the details provided in folklore, but what can't be denied is that both langda and Malda varieties are worthy contenders for the top spot with dussehri.

Bihar has named Amrapali after the legendary courtesan who had renounced a life of pleasure to follow the Buddha and residents of the state consider it to be the best mango. It is a hybrid variety that has dussehri and neelam mangoes as its parents.

Those who dwell on the western seaboard refuse to concede that there can be any fruit equal to their beloved hapus, aka the Alphonso, named after a high-ranking Portuguese colonial

ice creams, mango-flavoured beverages and juices. Another interesting thing about hapus is that it's not sold by weight, but by the count. A single fruit may weigh between 250 and 400 gm.

In Gujarat, kesar, also known as Gir kesar, the traditional rival of hapus, is prized. It is grown in Gir, Juna gadh, and more recently Kutch. It shares many qualities of Alphonso but has better shelf life and slightly lower cost than the hapus. The food processing industry is the principal market for its high-grade pulp.

Chausa, named after a village in UP, enters when other varieties are fading out. The die-hard supporters of dussehri, langda, Malda and hapus are constrained to cast a flirtatious glance towards the pile, knowing fully well that this is their last chance to enjoy the luscious fruit before the shelves are bare again. Sindhu is a seedless variety that has been developed by scientists but has remained a novelty and has failed to carve out a niche for itself. Southern India takes great pride in local varieties like Banganpalli that grows in Karnataka and the Andhra region. In Hyderabad, one encounters many 'created' varieties that combine the best qualities of different mangoes. Neelam, imam pasand, badami and gulab khas are just a few of these. In Haryana and western UP, paeans are sung of Rataul that drips irresistible juices to compensate for its ordinary looks.

Fazli is a late-ripening variety and usually signals the closing of the mango season. However, cold storages and easy imports have made the fruit accessible almost round the year. The prices may be steep, but late March through September end, the

green grocer has them on display to lure the well heeled.

Very good quality mangoes are grown in Bangladesh and some parts of Pakistan. Himsagar, harivanga or haribhanga and Gopal bhogh from Bangladesh compete with the Indian produce in the export market. Langda/Malda is immensely popular. In Pakistan, Rataul and chausa are the most popular varieties exported to the UAE and the USA. Ram kela is the variety of tart mangoes that is used for pickles and chutney in north India.

The 'King of Fruits' is enjoyed in a variety of sweet and savoury delicacies — in pulao, muzaffar ka meetha, curries, kadhi, desserts like kulfi, kheer, phirni — and beverages like the summer coolant aam panna. In the countryside in the Hindi heartland, unripe mango slices are added to arhar lentils and in Maharashtra, amras and amrakhand are greatly relished.

With over 1,200 varieties commonly grown, it becomes difficult to pick only one as a favourite. Finally, it is to each his/her own! One is reminded of great Urdu poet Ghalib's words: Each mango has written on it the name who is destined to eat it! gurugram

In the compound of the Circuit House in Chapainawanganj (earlier a sub-division of Malda district, now in northwest Bangladesh), a mango tree has received 200 grafts of different varieties, thanks to the enthusiasm of a District Collector and support from local horticulture department workers. Many drying branches have

started sprouting green shoots and those who nurse the tree are confident that soon the tree will start yielding a crop of over hundred varieties of mangoes. They are eagerly awaiting the next mango season.

Ironically, the most expensive variety of mango in the world is Japanese, developed in the small town of Miyazaki sometime in the 1980s. It has dark purple flesh that is seductively flavourful. It's called 'Egg of Sun' due to its rich ruby hue. A farmer in Jabalpur has started growing these after he was gifted a few saplings by a stranger during a train journey, who advised him and his wife to lovingly nurse them like children. Special protective sheaths enclose each fruit on the branches and trained guard dogs ensure that no unworthy hand tries to pluck them. These mangoes sell at the mind-blowing price of Rs 2.75 lakh a kg.

In Southeast Asia, different varieties of sweet mangoes are grown in southern, northern and eastern provinces that are paired with sweet sticky rice or added to salads. Mangoes in Thailand are called mamuang. Cultivated for thousands of years, these are named after their colour, ranging from green to yellow-orange, and shape. The local names translate as 'green eating', 'black gold' and 'rhinoceros'. Mango festivals are celebrated in many parts of Thailand.

Other countries also grow mangoes but these are no match for Indian varieties. Brazil exports mangoes to the US in large volumes and many varieties like Tom Atkins and honey are used in shakes and ice creams. Africa has a fruit that looks like mango but has nothing to recommend itself. It's consumed locally.

CURIOUS FACTS ABOUT JACKFRUIT

Jackfruit is a very popular fruit in India and it is plentifully available in market during summer. Let us know about some interesting facts about the fruit.

Jackfruit is originated from regions between the Western Ghats of southern India and also from the rainforests of Malaysia. It derives its name from Portuguese word Jaca. Jackfruit in India is known by kathal, as kanun in Thailand and nangkain Malaysia.

Jackfruit is the national fruit of Bangladesh. Jackfruit tree has a life span of 60 to 70 years. Archeological findings in India have revealed that jackfruit was cultivated in India 3000 to 6000 years ago.

A mature jackfruit tree can produce about 100 to 200 fruits in a year. Jackfruit is the largest tree-borne fruit in the world, reaching 36 kilograms in weight. The exterior of the fruit is green or yellow when ripe.

There are 95 calories in 100 grams of jackfruit. Jackfruit is rich in vitamins, minerals and dietary fiber. It is a very good source of vitamin A and B-complex, Vitamin C and Vitamin E. The fruit is also a good source of minerals, such as iron, magnesium, potassium and manganese.

The health benefits of jackfruit include healthy hair and good eyesight. It prevents indigestion, anaemia, reduce inflammation, strengthen immune system, fights wrinkles. It also helps in curing heart ailments, mental stress and skin diseases.



EMPLOYMENT CRISIS

People without Skills and Skills without People.

We are all born gifted; we are all born "skilled," even people with serious disabilities. Watch how a baby learns, eats food and puts information to use. The skills that a child possesses are astounding! Indeed skills help us make the journey of life more productive and meaningful. Human life is measured by service rendered through skills which are indispensable for our identity as a teacher, doctor or engineer. Generally skill can be defined as a craft, trade, or job requiring manual dexterity or special training in which a person has competence and experience.

Richard N. Bolles, a USA based expert on life planning in his book "What Colour is Your Parachute?" has categorised the skills into three types such as verbs, nouns and adjectives.

Some of our skills are verbs, things we do. These skills include driving, constructing, healing, sewing, communicating, persuading, motivating, negotiating, calculating, organising, planning, researching, synthesising etc. These are our transferable or functional skills based on our talents, gifts and natural skills. They are called Transferable Skills because they can be transferred from one occupation to another and they are used in a variety of fields no matter often we change careers. However, some people are born with the skill of negotiating but if we weren't, we often can learn how to do as we grow. So some of these skills are "acquired" by learning.

Some of our skills are nouns, subjects and objects we acquire and understand well. For instance, computers, English, antiques, flowers, colours, fashion, Microsoft Word, music, farm equipment, data, graphics, Asia, Japanese, the stock market, etc. are coming under these skills.

These are called our Subject Skills or Knowledge Skills. They are subjects that we know something about and love to use in our work. They are often called "our expertise." This is the second set of skills we have to offer the world.

Some of your skills are adjectives or adverbs. These are personal trait skills. Traits are the ways you handle yourself and interact with the world. These are developed mostly through experience. Some examples of these adjectives are words like

dependable, responsible, thoughtful and kind. In everyday conversation, we speak of our traits as though they floated freely in the air: "I am dependable; I am creative; I am punctual." But in reality, traits are always attached to your transferable skills, as adjectives or adverbs. For example, if our favourite transferable skill is "researching," then our traits describe or modify how we do our "researching." Is it methodically, or creatively, or dependably?

These styles, these self-disciplines, are the third thing we have to offer to the world. It is important, then, that we figure out what kinds of jobs need the transferable skills, and the expertise, and the traits that we most like to use. After all, we were born because the world needs what we uniquely have to offer.

But unfortunately, most of the job-seekers are not aware of these skills. Some of them are overqualified without any employable skills. They can't access any job opportunities in their location although jobs are there in other areas. Some are over skilled but they are not required by the employers because the employers want fresh employees with lower remuneration. It is reported that the reputed company Amazon is going to eliminate more than 10000 employees this year. Some of other multi-national companies are also on the path of firing the employees. They blame it on economic recession but skill gap is also attributed to be one of the reasons.

COVID-19 exacerbated an already growing skills gap in the rapidly-changing jobs market. In a book, "Job: How to Find Wealth and Success by Developing the Skills Companies Actually Need," Nicholas Wyman, a USA columnist, calls the skills gap, "a labour market mismatch — people without jobs and jobs without people." In short, skill gap is the difference between the skills required to do a particular job and those people that are available for the jobs. The skills mismatch means that some people don't have the right skills for the jobs available. For example, some figures show that in the UK, around 40% of UK workers are not employable for their current jobs. This means that some people are underqualified, and some are

By Jagannath Pattnaik



overqualified. It's also the reason why governments like the UK maintain entry visa routes for overseas skilled workers to enter the country and join the workforce. The UK government recently took decision to hire teachers in Mathematics, Science and language from other countries for its students. Like this, there are ample jobs vacant in different sectors for which people are not available.

After India adopted liberalisation policy, one sector which witnessed a revolution was I.T industry. The four years engineering course emerged as a viable alternative to the regular courses BA, BSc and B.Com. Three decades after it seemed to be an end of India's great engineering dream. However now-a-days the young people are diverting their attention to education, tourism, hospitality, aviation, communication and digital transformation. In digital transformation the space of change is accelerating so that it is very hard for anybody to keep up with it. The new technology such as ChatGPT or AI (Artificial Intelligence) are emerging as very powerful tools which will influence the whole world as machines will get more intelligent and eventually develop feelings. It is also feared

that it will snatch away jobs from crores of people. Some translators have already lost their jobs for AI. In some countries these technologies have been banned. In May, Geoffrey Hinton, who had been working on AI for 10 years, resigned from Google because he apprehended the terrible dangerous impact of AI on mankind and he regretted that he laid the foundation of AI.

Now time has come for people for re-skilling and up-skilling themselves in order to cope up with new situation. The experts should research on the various ways to keep the new technology under control. Otherwise it may bring disaster for mankind.

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From Page 6 - Increasing Income ...

At the same time, they should be enabled to enlarge their operational holdings by liberalizing the land lease market. The two major elements of such a reform are: security of tenure for tenants during the period of contract; and the right of the land owner to resume land after the period of contract is over" (Gulati, 2009).

Low level of formal education and skills: Education and skills are important for improving farming practices, investment and productivity. It shows that literacy and mean years of education are lower for small holding farmers compared to medium and large farmers. For example, literacy among males and females for marginal farmers respectively were 62.5 per cent and 31.2 per cent while the corresponding numbers for medium and large farmers were 72.9 per cent and 39 per cent. Similarly, mean years of education for males among marginal farmers was 3.9 as compared to 5.3 for medium and large farmers. The low level of farmers' education limits public dissemination of knowledge. The NSS farmers' Survey clearly shows that awareness about bio-fertilizers, minimum support prices and WTO is associated with education levels which are lower for marginal and small farmers.

Credit and Indebtedness: Small holdings need credit for both consumption and investment purposes. Increasing indebtedness is one of the reasons for indebtedness among these farmers in recent years. Data show that overall indebtedness is not higher for small and marginal farmers compared to large farmers. However, the indebtedness for the small and marginal farmers from formal institutional sources is lower than large farmers and the reverse is true in the case of informal sources. The dependence on money lenders is the highest for sub-marginal and marginal farmers.

Water Scarcity: Water is the leading input in agriculture. Development of irrigation and water management are crucial for raising levels of living in rural areas. Agriculture has to compete for water with urbanization, drinking water and industrialization. As mentioned above, small holding agriculture depend more on ground water compared to large farmers who has more access on canal water. Ground water is depleting in many areas of India. Marginal and small farmers are going to face more problems regarding water in future.

Risk and vulnerability: There is enough evidence to suggest that poor and poorest of the poor households are vulnerable to a range of risks affecting individuals, households or whole communities which can have a devastating affect on their livelihoods and well being. They have higher exposure to a variety of risks at individual or household level. Some of them are (a) health shocks: illness, injury, accidents, disability; (b) labour market risk: many work in informal sector and have high risk of unemployment and underemployment; (c) harvest risks, life cycle risks, social risk and special risks for vulnerable groups. In addition, they have community risks such as droughts, floods, cyclones, structural adjustment policies etc. Small and marginal farmers are vulnerable to all these risks. Most of the coping mechanisms followed by households are: borrowing, sale of assets, spending from savings, assistance from relatives and govt., expanded labour supply, child labour, bonded labour, reducing consumption, migration etc.

In an effort to boost the agriculture sector, the Government of India has set a goal to double farmers' income. In doing so, it has unveiled strategies ranging from irrigation to crop insurance. But if the agriculture sector is to undergo true transformation, it needs to move from a production-driven system to one driven by demand, one that increasingly connects consumers with producers. This will require new approaches and innovations, as well as increasing collaboration between the private sector and other stakeholders in the sector. It will require integrated approach that connect farm to fork, competitive markets that provide better prices to farmers, and an enabling environment that supports innovation and action. Agriculture is a complex sector. No one stakeholder — whether governmental, corporate or from civil society — can do this alone, especially given climate change and increasing pressure on land and water resources. Real impact will come from combining the competencies of diverse organizations and stakeholders and creating better alignment through partnership platforms. More investment, more infrastructure, more on-the-ground resources, financial linkage, market linkage, agriculture value chain, post harvest management, new collaboration models that combine the knowledge and resources of diverse stakeholders, and which share best practices, risks and mutual accountability will help in achieving the targeted outcome.

AGRICULTURE

Increasing Income of Smallholder Farmers in India

Pradeep Kumar Panda, Economist, Bhubaneswar

Agriculture is the backbone of Indian economy. Although its contribution to gross domestic product (GDP) is now around one sixth, it provides employment to 56 per cent of the workforce. Also, the forward and backward linkage effects of agriculture growth increase the

farmers. It is the highest for marginal farmers followed by small farmers. Data indicate that the percentage of area under irrigation for small farmers increased from 40 in 1980-81 to 51 in 2000-01. (NCEUS, 2008).

The fertilizer per hectare is

They contribute around 70 per cent to the total production of vegetables, 55 per cent to fruits against their share of 44 per cent in land area (BIRTHAL, 2011).

Their share in cereal production is 52 per cent and 69 per cent in milk production. Thus, small

farmers contribute to both diversification and food security. Only in the cases of pulses and oilseeds, their share is lower than other farmers. There has been debate in India on the relationship between farm size and productivity. The results of NSS 2003 Farmers' survey has empirically established that small farms continue to be produce more in value terms per hectare than the

medium and large farms.

Data show that value of output per hectare was Rs.14754 for marginal farmers, Rs.13001 for small farmers, Rs. 10655 for medium farmers and Rs.8783 for large farmers. It shows that from efficiency point of view, small holdings are equal or better than large holdings. (Rao, 2011).

The sustainability of these farmers is crucial for livelihoods

and monthly income was Rs.1659. It shows that they have dis-savings of Rs.823. The dis-savings for small farmers were Rs.655. On the other hand, for large farmers, monthly income and consumption respectively were Rs.9667 and Rs.6418 with savings of Rs. 3249 (Vaidyanathan, 2011).

Issues and Challenges for Smallholder Farmers in India:

Imperfect Market: NCEUS (2008) says that some of the general issues that confront marginal-small farmers as agriculturalists are imperfect markets for inputs/product leading to smaller value. According to Gaurav and Mishra (2011), reasons of low income are absence of access to credit markets or imperfect credit markets leading to suboptimal investment decisions or input applications; poor human resource base; smaller access to suitable extension services restricting suitable decisions regarding cultivation practices and technological know-how; poorer access to 'public goods' such as public irrigation, command area development, electricity grids; greater negative externalities from poor quality land and water management, etc.

Role of Women: The importance of women in agriculture has been increasing. The share of rural females in agriculture was around 83 per cent in 2004-05 as compared to 67 per cent among rural men, showing the importance of women in

among marginal and small farmers than that of medium and large farmers. Around 22 per cent of semi-marginal and marginal farmers are from SCs compared to 7.8 per cent in medium and large farmers. SCs have more than half of their holdings of less than half a hectare. Similarly, 15.6 per cent of small farmers belong to STs compared to 14.9 per cent among medium and large farmers. The distribution of land ownership among STs is better than SCs. However, the quality of STs land is probably of the lowest quality. Social identity of farmers is also seen to mediate access to economic resources and outcomes. Even after accounting for quantity and quality of land owned by socially deprived classes, their access to information, marketing, credit and publicly provided inputs and extension services are lower. This shows that they possibly suffer from discrimination in the delivery of public services as well as market (NCEUS, 2008).

Land and tenancy security: NCEUS (2008) argued that there is a strong evidence that relatively successful implementation of even a modest package of land reforms dramatically improve the prospect of the poor. Regarding small and marginal farmers, they own and cultivate some land but it is a limiting factor for getting resources. Therefore, tenancy security is important for small holding farmers. Land relations are extremely complicated and this complexity has contributed significantly to the problems



incomes in the non-agriculture sector. However, there have been exclusion problems like problems of poverty, unemployment, inequalities in access to health and education and poor performance. Real development in terms of growth shared by all sections of the population has not taken place. One of the excluded sector during the reform period was agriculture which showed low growth and experienced more farmers' distress. There are serious concerns on the performance of agriculture sector in the country and need attention of policy makers.

Small holdings agriculture is important for raising agriculture growth, food security and livelihoods in India. Indian agriculture is the home of 80 per cent small and marginal farmers. Therefore, the future of sustainable agriculture growth and food security in India depends on the performance of small and marginal farmers.

The number of smallholdings has been consistently increasing in India since the first Agriculture Census in 1970-71. The number of holdings, which was 71 million in 1970-71 went upto 138.35 million in 2010-11 showing a compound annual growth rate of 1.68 per cent during the period (Agriculture Census, 2011). However, the operated area which was 162.3 million hectares in 1970-71 marginally declined to 159.59 million hectares in 2010-11. The average size of holdings had shown a consistent decline over all the census periods. For instance, in 1970-71 it was 2.28 hectares which was reduced to 1.15 hectares in 2010-11 (Agriculture Census, 2011).

The access to irrigation has increased for all categories of

inversely related to farm size for both irrigated and unirrigated areas. It increased from marginal farmers in irrigated areas from 100 kgs. in 1980-81 to 252 kgs. in 2001-02. In fact, the per hectare consumption for all farm sizes was similar on irrigated areas in 1981-82 but it rose faster for marginal farmers and small farmers in 2001-02. This is true in the case of unirrigated areas also. (Dev, 2012).

The percentage of area under high yielding varieties (HYV) is also inversely related to farm size. In the irrigated areas, the coverage of area under HYV was 89 per cent, 86 per cent and 78 per cent respectively in marginal, small and large farmers in 2001-02. In the case of unirrigated areas, the coverage was above 50 per cent for marginal, small and semi-medium but it was only 30 per cent for large farmers in 2001-02. (Rao, 2011).

Multiple cropping index is higher for marginal and small farmers than that for medium and large farmers. For marginal farmers, cropping intensity increased from 134 in 1981-82 to 139 in 2001-02. In the case of large farmer, it rose from 116 to 121 during the same period. The differences across farm sizes persisted over time. (Gulati, 2009).

The contribution to output is higher for marginal and small farmers as compared to their share in area. The share of these farmers was 46.1 per cent in land possessed but they contribute 51.2 per cent to the total output of the country at all India level in 2002-03. (Agriculture Census, 2011).

In terms of production, small and marginal farmers also make larger contribution to the production of high value crops.



in rural areas and for the entire country. The cost of cultivation per hectare is also high on small and marginal farmers than medium and large farms. (Agriculture Census, 2011).

However, the monthly income and consumption figures across different size class of land holdings show that marginal and small farmers have dis-savings compared to medium and large farmers. According to NSS 2003 data, the monthly consumption of marginal farmers was Rs.2482

agriculture in rural areas. Percentage of women among marginal farmers (38.7 per cent) is higher than that for large farmers (34.5 per cent) in 2004-05. These proportions have increased over time. Agriculture is becoming increasingly feminized as men are migrating to rural non-farm sector. (Rao, 2007).

Role of Social Groups: The proportion of socially disadvantaged groups such as Scheduled Castes (SCs) and Scheduled Tribes (STs) is higher

facing actual cultivators. Unregistered cultivators, tenants, and tribal cultivators all face difficulties in accessing institutional credit and other facilities available to farmers with land titles. On land market, the Report of the Steering Committee recommended the following. "Small farmers should be assisted to buy land through the provision of institutional credit, on a long term basis, at a low rate of interest and by reducing stamp duty.

Continued Page 5

SCIENCE & TECHNOLOGY

Top Carbon Emitting Countries

Er. Mayadhar Swain

Carbon dioxide (CO₂) emissions are the primary driver of global climate change. It's widely recognised that to avoid the worst impacts of climate change, the world needs to urgently reduce emissions. But, how this responsibility is shared between regions, countries, and individuals has been an endless point of contention in international discussions.

CO₂ has become a major concern as climate change becomes a bigger issue. The concentration of CO₂ has especially increased as a result of the Industrial Revolution and exponential growth in manufacturing activities around the world. At the beginning of the industrial revolution in mid eighteenth century the concentration of CO₂ in the atmosphere was 280 parts per million (ppm) and now it has reached to 410 ppm. Deforestation, agriculture, transportation and fossil fuel use are the primary sources of CO₂. At the Paris Climate Conference and subsequent conferences all the countries have agreed to reduce carbon emissions to the atmosphere. The USA and European countries have pledged to achieve net-zero emission by 2050 where as China and India have declared to achieve it by 2060 and 2070 respectively.

In this context let us discuss about the top five carbon emitting countries. The top five CO₂-producing nations in 2020 (when latest data were available) were China, the United States, India, Russia, and Japan.

1. China

China is the largest emitter of CO₂ in the world, with 10,668 million metric tons emitted in 2020. The primary source of CO₂ emissions in China is fossil fuels, most notably burning of coal. As the world's second largest manufacturer, much of China's industrial production is powered by coal. About 55% of the total energy generated by China in 2021 came from coal alone. Also, China is one of the largest importers of oil, which contributes to large CO₂ emissions through the country's use of motor vehicles. In addition, rapid urbanization has intensified CO₂ emissions. Cement and steel production required for infrastructure, produce significant amounts of CO₂. Half of the world's steel is manufactured in China. China plans to reduce its dependence on coal and decrease overall pollution in large cities in the future by generating more electricity using nuclear, renewable energy sources, and

natural gas.

2. The U.S.

The U.S. is the second largest emitter of CO₂, with 4,713 million metric tons of total CO₂ emissions in 2020. The largest sources of CO₂ emissions in the U.S. came from transportation, power generation, and industry in 2020. Even though the U.S. government undertook significant efforts to reduce the reliance on coal for electricity generation, the country has become a major producer of crude oil. Also, the U.S. economy is heavily reliant on the transportation sector, which burns petroleum for trucks, ships, trains, and planes. U.S. consumers especially depend on



cleaner-burning fuels. India has declared to generate 50% of its electricity from renewable sources by 2050 and replace most of its petroleum driven vehicles by electric vehicles by 2030.

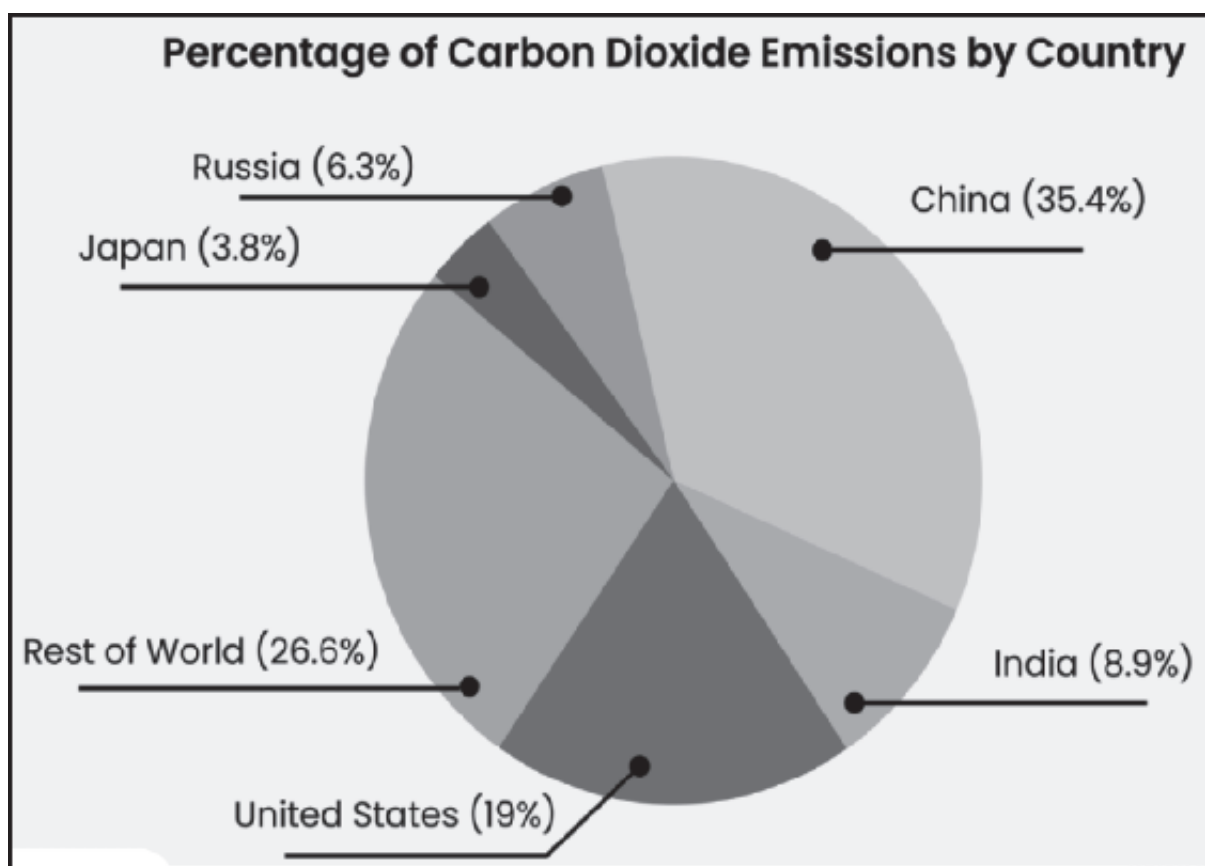
4. Russia

Russia is the fourth largest

deposits in the world, and natural gas is the primary source of energy and power generation in the country. Coal, which is widely used in chemical and other basic material industries and for power generation in Russia, is also a major contributor to Russia's CO₂ emissions.

5. Japan

Japan is the fifth largest producer of CO₂ emissions, with 1,577 million metric tons in 2020. Oil is the largest source of energy in Japan, with its total share of energy consumption being 40% in 2019 (data for 2020 are not available). Coal still makes up a large share of energy consumption in Japan, its share



their cars as their primary means of transportation, and this also contributes to the CO₂ footprint through gasoline and diesel. Another large contributor to CO₂ emissions in the U.S. is industry, which burns fossil fuels for energy. Also, the U.S. chemical sector uses various chemical reactions necessary to produce goods from raw materials, which in the process, emit CO₂.

3. India

India is the third largest CO₂ emitter, with 2,442 million metric tons of total CO₂ emissions produced in 2020. Coal is the main energy source for India, supplying about 45% of the energy in the country. Petroleum provided about 26%. Natural gas accounts for only 6% of India's energy consumption; however, the country plans to increase the natural gas market share to 15% by 2030 in order to reduce air pollution and use

contributor to CO₂ emissions in the world, emitting 1,577 million metric tons in 2020. Russia has one of the largest natural gas

being 26%. Nuclear power accounts for 21% of energy consumption as of 2019. The

country's energy plan from 2018 has the goal of increasing nuclear-fired power production by 2030 to reduce the dependency on hydrocarbon fuel imports.

If we will consider per capita emission of carbon, then some small countries with less population will head the list. We can calculate the contribution of the average citizen of each country by dividing its total emissions by its population. This gives us CO₂ emissions per capita.

The world's largest per capita CO₂ emitters are the major oil producing countries; this is particularly true for those with relatively low population size. Most are in the Middle East. In 2017 Qatar had the highest emissions at 49 tonnes (t) per person, followed by Trinidad and Tobago (30t); Kuwait (25t); United Arab Emirates (25t); Brunei (24t); Bahrain (23t) and Saudi Arabia (19t).

However, many of the major oil producers have a relatively small population meaning their total annual emissions are low. More populous countries with some of the highest per capita emissions – and therefore high total emissions – are the United States, Australia, and Canada. Australia has an average per capita footprint of 17 tonnes, followed by the US at 16.2 tonnes, and Canada at 15.6 tonnes. This is more than 3 times higher than the global average, which in 2017 was 4.8 tonnes per person. India's per capita emissions are well below the global average, at just 2.8 tonnes. By comparison, per capita emissions in China at 9.6 tonnes.

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From Page 9 (NRI Marriages...)

In cases like the one given above, the repercussion of NRI marriage as such is more startling than we know. There are enough documented and reported cases available for perusal and make one realise the severity of the issue. An article in the Tribune says, "The list of women who have been duped by avaricious NRIs is unending". Women in certain societies including Punjab hardly have any economic or decision making authority. They are often "exploited at the hands of selfish parents and greedy husbands". The article suggests, "The need of the hour is to inculcate a certain respect for women. From female foeticide, to total disregard of a daughter or a wife's preferences and to the utter submission of our women, irrespective of education, are all symbolic of the abhorrence for the female species. Imagine English was made compulsory some years ago, only to facilitate marriage with NRIs and not with any other states (The Tribune)." NRI marriage and victimization of the bride (women) is clearly a socio-cultural issue with question gender prejudice at the core of it.

Hence, the study not only strives to annihilate the taboo aspect of it, but also define and place the issue on the right pedestal. The gender aspect of the problem also needs to be addressed. And by doing so, a small step towards curbing a larger problem of marriage vis-à-vis women and their place in the Indian society will be readdressed.

Although there exists reports and articles, a failed marriage especially that of women is often perceived as a taboo in the Indian society. A wider discussion on this in the society including the victims and victimizer themselves is required. To do that, the element of taboo has to be first annihilated. And this is possible only when the issue in itself is turned into a healthy debate among the wider public.

The study also strives to conceive preventive measures against such cases. In-depth interviews with the families who have been affected by NRI marriages having, both positive and negative outcomes, will be conducted so as to envisage effective preventive steps. The study will also incorporate narratives from those families and women who had the options for NRI marriages, but instead chose other alternatives.

HUMAN BEINGS – FIVE ASPECTS OF LIFE

Sri Sri Thakur Anukulchandra has appeared to give a brake to degeneration by means of his power of love that generates from the manifested transcendent reality in his being. With a tremendous earnestness and irresistible affectionate concern, he solicits existential welfare of individual penetrating a sense of transcendence by means of certain avowed activities in the midst of the mundane world. Human's life is a continuous process towards super consciousness, lives have different levels i.e. Individual life, conjugal life, family life, social life, national life and so on are co-related & coordinated with each other known as **Pancha Mahajveevan**.

Individual Lives:

Every individual wants to exist and progress. A faithless man is a clueless individual. Life and growth is every individual's inherent urge. However, what kind of growth is desirable? A tumour in our body is also growth. But no one wants tumorous growth in the body. If a man goes to the Gymnasium every day, and only exercises with his left arm, he would find the muscles in his left arm have become stronger after a few days, but the muscles in his right arm remain as weak as before. If an individual wants to build a strong body, all parts of the body need to become stronger. Similarly, if a man wants to achieve all round development in his life, he has to achieve development in all five aspects of life: Personal, Conjugal, Familiar, Social and National. Such a growth is called balanced growth. Suppose a man is successful in his personal life but he has strained relationship with his wife and doesn't command the respect of his children at home, he doesn't have balance in his life. To take another example, if a man achieves success in his personal life, takes good care of his family but doesn't enjoy a healthy relationship with his neighbours, colleagues, friends in the society, he can not claim to be having a balanced and successful life in the true sense. A man can be considered truly successful, when he achieves success in all the five aspects of life: Personal, Conjugal, Familiar, Social and National. Then there is perfect balance in life.

How can the individual get balance in all the five aspects of life? To gain this balance man needs to have a balancing factor

in life. The balancing factor is the living ideal – the Purushottam of the age. He is fulfiller the best. Man has to align himself to the Living Ideal to achieve balance and harmony is life.

The individual who comes forth ever-enchanted with sympathy and love for the Supreme Being, become the beloved God in flesh – the Ideal, the way to rescue.

-Sri Sri Thakur, The Message Vol.1

When we accept the Living Ideal, all aspects of our life personal, conjugal, familiar, social and national move in tandem. We achieve perfect balance.

We need to attach ourselves to the living Ideal, love him and serve Him. When we love him, our attachment wards our passions and complexes goes away. Love for the Living Ideal or Guru is the highest form of Love. If we love the Living Ideal and follow Him unconditionally, we shall gain absolute control over our lower passions and weaknesses. We shall become transformed and purified souls. If, instead, we only follow our own whims, ignoring Him, then we receive accordingly. A man attached to the Living Ideal, becomes a loving, caring, wise, efficient, agile and strong human being. A loving and caring man is a happy man by nature. And if he is also wise, efficient agile and strong, he makes progress and achieves progress in life. His progress may not be a windfall, but it is always steady. When we align ourselves with the Living Ideal, our innate and instinctive qualities flourish.

When Ideal is awake in man, he is active, agile, inquisitive, responsible, alert and tactful. In a word, all faculties bloom and glow.

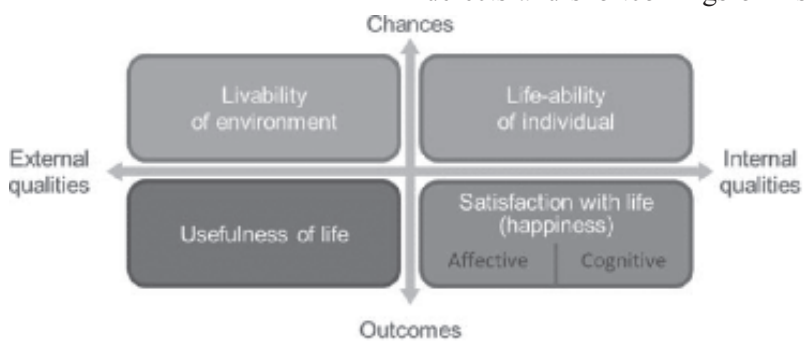
- Sri Sri Thakur, The Message Vol.1

The human individual functions as an organized system because of the three prima constituents of which it consists – the body, the mind and the self (Spirit). The living organism can not exist without the correlation of these three constituents. Those constituents can not be identified separately from one another. Though they exist as distinct entities, none of them can be derived from the other two. The mind of an individual is distinct from the self and the body as well, although closely associated with both. Self creates the body and mind according to its own

Prabhu Prasad Gadnayak

nature in concordance with the environments.

We find that in human nature there is an opposite virtue – inborn desires or predispositions which produce a contrary result. For exp. against hate we must place love; against egoism, altruism; against cruelty, mercy;



against ambition, humility; against lust, benevolence & against nationalism, cosmopolitanism etc. The quality of mental make-up is an inherent property of a human being. Our verdict depends on which side of the mental coin is uppermost in our minds.

Man is not born with 'original sins'. Man is basically pure by nature. He commits sin out of sheer ignorance. Once ignorance is dispelled from him, lust vanishes and furring of hearth shines in him. However, his very existence entwined with Libido or cohesive urge since the time of fertilization of the ovum by the sperm in the womb of the mother. The electromagnetic force, underlying the fertilization, acts as an impelling cause behind man's quest for unification with something's sublime, or the Source of Existence. If the tendency of man towards unification is nurtured properly, a normal growth of personality occurs in him. Otherwise for a distorted libido a natural and harmonious growth is impossible.

Individual conduct is the key word to social reformation and moral upliftment. If every one of us try to be good and do good, not only the good results will be bestowed on us but each good action and behavior will also be an example for many others to follow the good on their life. In this process a person's good behavior and right action will bring him an extra bonus in the form of a nobler environment which in the long run will contribute to his own welfare.

If you be good yourself, thousands of people will be good seeing your example. If you be bad, you will find no one to sympathise with you in your distress because being bad, you have made your environment bad.

"Know this certain, you are responsible for the present and future – of yourself, your family, your environment and your country" – Sri Sri Thakur, Satyanusaran.

Sri Sri Thakur said "A person who has reformed himself has done more for the reformation of society than a host of noisy, impotent patriots". He used to say very often "I have not asked you to do anything which I have not done myself".

Therefore, reformation of individual life is of paramount

importance for the welfare of our family, society and the nation, and in order to achieve this goal, active adherence to the living ideal or Sadguru is must. Because Sadguru is he, who knows the way and acts as a guiding star for every individual and the society. Attachment to the Sadguru by love enables every-body to overcome the defects and shortcomings of his

voice, look ward and all the in communicable grace the women's tenderness. Women has been described as the home and she is that of the couple, who is responsible for the home, looking after home life, rearing children etc.

In this context Sri Sri Thakur says, "I like very much the statement of Jesus Christ where he has said that husband and wife should be attached to each other with such a profound love that they will become one in flesh and spirit."

Profound love and deep attachment between husband and wife secures a happy conjugal relation. Where husband and wife are one in love and spirit, conjugal happiness is spontaneous there.

For healthy conjugal relation, an honourable distance in attitude is invariably inevitable. Relationship between husband and wife should be nearer, deeper but with a distance. Hence, it is said, "If you hold a mirror at the point of your nose, you can not see your face; similarly, to enjoy oneself in the other, an honourable distance is required. By honourable distance means a sense of equality separated by an awe filled regard on the part of wife for her husband and a compassionate respect on the part of husband for his wife. This humble distance in love relation infuses a sense of responsibility and duty. Hence, it is aptly said, "Compatible marriage in similar clans is ever inseparable."

Family Life:

The family is a unit of society. In this sense, every family is like a mini society. You have to try to train yourself in this mini-society so that you will be able to enjoy a better life in the larger society.

Adjustment, a principle of life, is what makes all social life run smoothly. If you enter social life without first having learnt to make adjustments within the framework of the family, you will have only two options: either learn to make immediate adjustments or stoop to hypocrisy and then live in a state of tension.

Domestic peace is very essential for the balance growth of life. Where there is no peace at home and where restlessness and conflict pre-dominate, man's body, mind, nerve and efficiency invariably suffer a break-down. One of the main reasons of the dominance of discord, dissension and unhappiness throughout the society is the lack of a loving peaceful atmosphere in the conjugal and domestic life.

No doubt, it is needless to say that an ideal domestic life evolves on the basis of proper marriage and conjugal life will constitute the highest asset in every sphere of life. So, marriage deserves a meticulous attention and consideration for individual, social and national development. The efficiency, achievement, character and conduct everything of an offspring depends basically on his inborn biological adjustment. Thus in the organization of a family life, the most momentous factor is compatible marriage which if maintained in tact, then the family invariably becomes progressive and peaceful.

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WHAT ARE ASPECTS OF LIFE?

The aspects of life consist of the various phases of your life that you manage every day. Disrupting any one of these five crucial aspects of life can and will leave your life crippled.


THE FIVE ASPECTS OF LIFE



Mental




Physical



Emotional



Financial



Social

EXTERNAL AFFAIRS

NRI Marriages in Punjab

Pradeep Kumar Panda, Economist, Bhubaneswar

Marriage is a universal practice across the world. It often carries strong socio-cultural ethos apart from plausible economic factor being a determinant. In India, marriage is not just a sacrament of its socio-cultural milieu; it also embodies such pomp and show that Indian weddings have often been termed as “the Big Fat Indian Wedding”.



NRI marriages are particularly known for its overdose of glamour and extravaganza. “NRI marriages”, as generally understood, are between an Indian woman from India and an Indian man residing in another country either as Indian citizen (when he would legally be an ‘NRI’) or as citizen of that other country (when he would legally be a PIO – person of Indian origin).

In India such marriages are often coveted perhaps due to the Indian’s common penchant for migration to the West whereby the married daughter and her family establish a connection with the NRI/PIO family. However, these marriages are not always beautiful fairy tales. There are repercussions related to dowry and other kinds of harassment of married women in foreign countries like non-consummation of marriages, marriages of convenience, concealment of earlier existing marriage by the husband before marrying an Indian woman and lack of social security faced by an Indian woman on the foreign soil once the marriage is broken and ex parte divorces are obtained.

In India such cross-border marriages have earned a bad name. It is reported that women in such marriages have been ill-treated in so many instances that the brides are called ‘honeymoon brides, holiday brides, brides of cheat weddings, brides of fraud marriages, abandoned brides, brides of passport weddings, and so on.

Apart from violence, abuse, and desertion of women also takes place which can be extremely traumatic for the affected. In NRI marriages, infringement of rights occurs across the high seas, in transnational spaces, leading to psychological, legal, emotional, cultural, and economic issues spanning different nations. NRI

wife abuse and abandonment can occur anytime, before or at the time of marriage, during marriage, and also after the dissolution of marriage.

The numbers of NRI marriages

vary across the country. Some regions have recorded very high cases. The cases are also more prevalent in northern India especially in Punjab, Haryana, Uttar Pradesh, Delhi and Maharashtra as available records show. Besides the number of cases, what is even more alarming is the culture of silence on the issue. To break the silence and start the discussion, a thorough understanding of NRI marriage in India is required at the very outset.

Many authors observed that the desire for an NRI groom is high among prosperous households, defined by standard of living or the size of agricultural land. Apart from an expectation for better future for their daughters, lure for ‘foreign social security’ provisions are the compelling reasons. Besides, an improvement in the chances of immigration for other members in the household through new family networking and tie-ups are added attractions particularly for households with lowest standard of living. The study pointed that the international out-migration and international marriages are firmly associated. As the number of NRI marriages keeps rising, cases of fraud or disputed marriages are also often reported. The actual number of cases can also be higher than the recorded number as it is likely that many cases remain unreported.

Global Marriage: Cross-Border Marriage Migration in Global Context, Cross-border Marriage: Global Trends and Diversity, Cross-Border Marriages: Gender and Mobility in Transnational Asia, Asian Cross-border Marriage Migration: Demographic Patterns and Social Issues, Gender Trends in Southeast Asia: Women Now, Women in the Future, etc. are some pertinent

works on cross border marriages in Asia. However, these studies are spread across Asia with focus on China, Japan, Korea and Taiwan. Let alone Punjab which is the focus area of this study, even India as a whole do not come in the studies as much as it should despite the fact that India records the highest cases of NRI “fraud” marriages in the world. However, these studies

The studies establish some critical thoughts on such marriages. There is a strong undercurrent of economic, cultural and social motifs. The diaspora groom is often seen as culturally, socially and economically better off than his counterparts in his place of origin. The conventional attitude is

that the marriage will bring the family of the bride at par with the socio-economic and cultural standing of the NRI bride. The aspect of “abroad” usually associated with more developed countries as compared to the less developed ones of their country of origin plays a significant role in such marriage transactions. The roles of such aspirations have been pointed out in these studies. A gender (prejudice) element has also been noted in Cross-Border Marriages Gender and Mobility in Transnational Asia. The idea that women of supposedly poorer background will get a better life in the richer family and country of the groom is also a significant factor while the willingness and conditions of the wives are often overlooked. The studies also look at the aspect of violence often rendered invisible. While the violence women go through in cross border marriages are highlighted, a case is built to address such violence as gendered.

A study titled Dynamics of International Out-Migration from Punjab, carried out by the Centre for Research in Rural and Industrial Development (CRRID), Chandigarh, and Institut National d’Études Démographiques, Paris have done a chapter on NRI marriages in India. This remains an important study in this area especially for the field based survey for different regions. The study

highlights the divided perspectives of the people about NRI marriage. It reveals that 50 percent are in favour of NRI marriage despite the prevalence of fraud cases. It also highlights the percentage of such marriages in different regions and castes in Punjab.

The proceeding of the conference Issues Relating to NRI Marriages by the National Commission for Women (NCW) is an all-encompassing study on NRI marriages in India. The work tries to unpack the common issues of such marriages and present a country and state wise data. The initiatives of NCW, NRI Cell and other related government bodies are particularly discussed.

NRI Marriages and Abandoned Brides, a memorandum submitted by Rakshak to the Ministry of Overseas Indian Affairs, Government of India, is a small but significant work on the issue. By using 10 years statistics of registered cases, it tries to address the common issues of NRI marriages and the limitations of legal mechanism to handle such cases. It studies selected few regions including Doaba region of Punjab. Penchant for foreign countries, agriculture taking a step back in terms of remuneration and the prevalence of immigration racket are deemed crucial factors for the high rate of NRI marriages. The study attempts to understand and highlight the issue from the aspect of migration that Punjab is anyway highest in the list in India. This work contributes to



the much needed aspect “migration” as far as NRI marriages in Punjab is concerned.

The present study attempts to fill some of the gaps that have remained herein. It will further add on to the survey based study on NRI marriages briefly discussed in Nanda and Veron’s study. It also aims to take the discussion on crucial factors of the issue further forward. And most importantly, the study seeks

to contribute in building more pro-active preventive measures to bring an end to this grievous social custom before more women’s lives are wasted.

Of the nearly 30,000 women deserted by NRI husbands, roughly 15,000 of them belong to the Doaba region.

It is extremely important to address the issue of NRI marriage in India solely for the fact that India has the highest number in the world. This can be partly attributed to the fact that India is the second most populated country in the world. However, the number is still a staggering figure. As of September 2009-31st December 2010, 416 cases (highest) were reported from India and the only 15 cases (second highest) were reported from USA (NCW, MOIA, 2011). It is indeed frightening. The importance of the study lies in the fact that it will address a not so widely discussed issue with detail analysis and take it out there in the public platform for all to evaluate and act upon.

A research article surmises what exactly happens in such cases of abandonment. “In most cases an NRI marriage is solemnized in India and the bride is then taken to her husband’s abode which is in the foreign land. Assuming at this juncture, an ex-parte divorce decree is obtained by the NRI husband in a foreign court. Here, the Indian spouse is left helpless, deserted on Indian shores confronted with a matrimonial litigation of a foreign court, which she neither has the means or ability to invoke which often results in despair, frustration and disgust. The woman is denied maintenance in India on the pretext that marriage has been dissolved by a court in another

country. It is submitted that the jurisdiction assumed by the foreign Court as well as the grounds on which the relief is granted must be in accordance with the matrimonial law under which the parties are married or where the respondent voluntarily and effectively submits to the jurisdiction of the forum and contests the claim which is based on a ground available under the matrimonial law under which the parties are married.

Continued Page 7

WILDLIFE

Endangered birds and animals in Odisha that you should see before their extinction !

The world is filled with endangered species of animals, many of which can be found in Odisha. While some of these species are critically endangered, some are near threatened and some are even extinct. There are some species that are left in such few numbers that the next generation may not be able to ever see them if nothing is done for their conservation. Here is a list of some endangered animals that could be found in different parts of Odisha.

Forest owl

Forest owl is found in some parts of Odisha. The bird has an interesting history. It lost more than a century ago. Not finding it for decades, a prominent ornithologist in India Salim Ali made a public appeal to look for the bird. After 113 years, the owl was rediscovered in 1997 and appeared on the list of Indian birds. These birds generally live in dry deciduous forest. Cutting down, burning and pruning of trees cause damage to the forest owls and their nests.



Spoon billed sandpiper

Along with West Bengal, Kerala and Tamil Nadu, these birds are found in Odisha also. The bird requires highly specialized breeding habitat, a constraint that has always kept its population scarce. Odisha is home to some of the last existing wintering grounds of this species. The main threats to them are habitat degradation, land reclamation and human disturbance.



Royal Bengal Tiger

Royal Bengal tiger is a Panthera tigris population in the Indian subcontinent. It is also found in Odisha. However, it is listed as endangered on the IUCN Red List since 2008. In 2018 estimation, the State's tiger count stood at 28, unchanged since 2014. It is threatened by poaching, loss and fragmentation of habitat.



Black buck

The local Odia names of black buck are krushnasar mirga, bali harina or kala bahutia. Blackbucks are confined to Balukhand-Konark coastal plain, wildlife sanctuary in Puri District, Balipadar-Bhetnoi and adjacent areas in Ganjam District. In Odisha the estimated population of Blackbuck is about 800 to 900. Blackbuck numbers are declining sharply due to excessive hunting, deforestation and habitat degradation. Hunting of blackbuck is prohibited under Schedule I of the Wildlife Protection Act of 1972.



Hawksbill turtle

It is a heavily exploited species. The species is migratory in nature and nesting occurs in about 70 countries across the world including Odisha. Maturation of the species is slow and is estimated between 25-40 years. In India they are found in the Andaman and Nicobar Islands, the coast of Tamil Nadu and Odisha. The main threats to the species are turtle shell trade, egg collection, slaughter for meat, water pollution, destruction of nesting and foraging habitats.



Gharial

Gharial is one of the endangered species which is found in Odisha. The dire condition of the gharial reflects the tragedy of our rivers. The main threats to gharials are the combined effects of dams, barrages, artificial embankments, change in river course, pollution and sand-mining.



Irrawaddy dolphins

Irrawaddy dolphins are found in Chilika lake in Odisha. Although not necessarily facing extinction in the immediate future, specific populations of bottlenose dolphins are threatened due to human impact including illegal hunting, a shortage of food due to over-fishing, fishing nets and marine pollution.



Pangolin

Odisha is believed to be one of the last strongholds of pangolin which is known as the most trafficked mammal in the world. These little guardians have survived thousands of years of natural changes, but now they are on the verge of extinction due to habitat loss and illegal poaching.



Elephants

Elephants in Odisha face an uncertain and dangerous future and are almost at the brink of extinction. Once the pride of Odisha, elephants now see the State as a graveyard. As per the wildlife experts, the nexus between the poachers and forest officials has turned the State into a graveyard for elephants. The safety of our national heritage animal in Odisha is in peril. In 2021-22, Odisha lost as many as 74 elephants due to different reasons. In an average, 33 elephants died during 1990-2000. However, the numbers almost doubled to 64 in 2001-2010. Things became worse thereafter as at least 946 elephants died from 2010-2022. In Odisha, elephants are mainly threatened by habitat loss, poaching and accelerating levels of human-elephant conflict. Electrocuting by domestic electric power lines is causing mortality.



SELF KNOWLEDGE

The Rebellion

Swami Suddhananda

Wisdom rests on a fine discrimination where the person turns every apparent disadvantage to his/her advantage. Since the same ladder takes one up as well as down, since the same road leads one to the mountain and to the valley, since the same door leads one outside and inside, it depends upon the traveler, the person, to learn to choose his destiny. There is nothing called absolute good or bad, profound or profane, sublime or ridiculous in the 'relative' world. There is nothing called an absolute relationship as everything comes to an end. The destiny is destined. The death too dies. Life changes. Changes are a changeless law.

Therefore, only the average, indiscriminate, uninitiated minds think in terms of infallible arrangements in an ever changing world, trying to build a rugged castle on and with quicksand. There is nothing called a flawless relationship. But there is something called a flawless truth, trying to build a rugged castle on and with quicksand. There is nothing called a flawless relationship. But there is something called a flawless truth. That truth, that reality is the essence of all and everybody has access to it if they are willing to own it up.

We are not the first generation of men or women, neither are we the last young men or women to go through the situation in which we are. Hundreds have experienced it before and thousands shall go through it in future. As our definition of personal world goes on changing and is ever expanding we shall encounter situations, conflict and landscapes that our ancestors did not face and which the future generation may face in a still more complicated way. Each generation wants to experiment and considers the previous generation as too stagnant, retarded, regressive, conservative, rigid and impractical. Your children will repeat the language that you used towards your parents. If you talk to the women of your mother's generation, they will tell you how they had freaked out when their mums had questioned certain attitudes of theirs.

Transition, transition and transition, is the name of the game. Every change brings out the conflict inherent in it. It must have been the order of the day in our great grandfather's generation to stay within the boundaries of the village. The few who crossed the border must have been rebellious. If the rebel returns with dazzling gold and prosperity, many will choose to imitate the pioneer. If he never returns or returns with rags and pathetic tales of his misadventure the people will withdraw themselves further in the tiny little village.

The extension of it is the billions of tens of billions of lives played out in different hues, in different dimensions-call it individual, social, economical, political, religious or secular. One person's defiance is another person's submission. And one person's submission is yet another person's rebellion. It depends who looks and who is looked at.

Life is slowly ebbing out, silently passing by, when every person is making the loudest noise about his/her living. I think we can consider that life is living where the person has gone beyond the relative considerations to enjoy every relative situation out of total freedom and sheer choice.

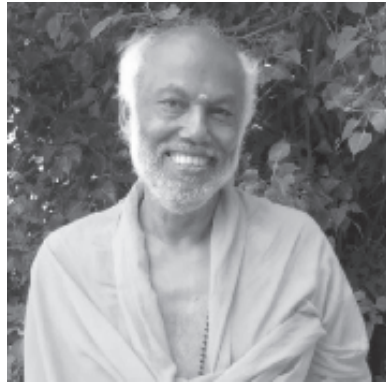
There have been different types of rebels-political, economical, social and religious. But very few, extremely few have rebelled against the one who is rebellious within. The so-called rebel, with his/her intellectual, emotional or material wealth can try to disrupt the rhythm of a society but that disruption perpetuates the same myth, same hypocrisy, same shallowness in another form, in another system.

Nobody, just nobody, can create a system which is flawless without awakening people to a flawless dimension within themselves. When the ultimate rebel rebels against the rebellion within i.e. challenges the rebel and the rebelliousness within to wipe himself/herself out, calmness, and stability descend on the world.

Men and women under different circumstances, strive to change, reform everything according to their taste, their maturity, their learning that can be their wisdom or their foolishness. They have to pay a price for it with their own sacrifice, own adjustment, denial or indulgence. In the process they may enjoy or may suffer and others, too, may enjoy or may suffer.

Therefore, the best way to handle these inescapable contradictions of the relative world is to return to a source within one's own Self where one is at peace within oneself and then out of that sheer fulfilment learn to bring about changes. No more the process appears calm, serene or a smooth painless transition as the layers we have to penetrate into have become thick, complicated and crusty.

Modern man/woman is no more a simple physiological or psychological entity. Psychology has complicated the physiology and the extensions. The externalities have complicated the psychology. Everybody is a stranger to himself/herself. All the strangers, are striving to create a forum of insiders. Will



they ever succeed? Each one with his/her own self-interest tries to change another person or the world. Either of them may feel comfortably manipulated until there is an awakening to a more mature standpoint of freedom. Many die away before the emotional game is played out and the world brands them as 'happy' people. Those who wake up and look for an alternative, sometimes with a calm disposition, or sometimes with all the outburst of a repressed violence, are branded as 'unhappy' people.

That is how the world continues. Mankind plays out a game of life. Some succumb. Some rebel. Some mindlessly succumb and that's their rebellion. Some rebel to succumb and they too are rebellious. Each one contributes to the growth of the world in his/her own way. But both are sacrificed at the altar of an innocent world, against which they rebelled.

Indeed real revolution without can only begin with the evolution within. The rebel must challenge the rebel. But long before one challenges the rebel within, one

must create a rebel within. Our systems, our education, our exposure today help us to create in us a very strong sense of individuality and that indeed is the greatest blessing though it appears as a curse to many. One can question, challenge everything only with a sense of strong individuality. That is the beginning of one's awakening when one starts challenging every system without. Then one must understand the self-defeating challenge of the externality as any standpoint hides within the other standpoint. The gain hides in the loss and vice versa. Success and failure, victory and defeat, like and dislike, prosperity and poverty, morality and immorality, pain and pleasure-Pair of opposites hides either of the pair and nobody can escape it. Therefore, the ultimate challenge is directed by the challenger against the challenger, the rebel against the rebel, the questioner against the questioner.

There the person must wake up to the reality of himself/herself And the storm disappears within. As soon as the calmness reigns within, the world gains a transcendental beauty as the person has transcended everything, to be within and without everything, as his/her own nature.

Then he/she can choose to play the game with the least disturbance to the society. This may be the rule, but everybody does not, and apparently unable to play by these rules. First and foremost this standard is not

known to all. Each one creates his/her own equations. That's why the world is full of constant groaning and occasional laughter or a quiet smile.

If one wants to laugh, one must be the constant laughter, the eternal smile. Nobody can give you an injunction either to laugh or to mourn, even as nobody can tell others what to do or what not to do. The child of a man-be it the childhood of the body, the mind, the emotion or the intellect-needs certain relative injunctions to grow up. But unfortunately many societies, religions, systems stay at that level as the ultimate and the man is never taught to question himself/herself. So, those who question, which is part of healthy growth, are looked down upon as rebels as they disturb the quiet grounds of a sedate mind. Therefore, sometimes, a psychological/religious system is created 'to help' the disturbed to adjust to the system though ultimately it means 'the defeat' of the man despite helping the society. The 'man' is always neglected.

In reality, the individual who is the product of such necessary relative injunctions, must learn to question himself and there the Vedas, with its ancient wisdom of man provides a universal dimension to a human problem. Everyone must know himself/herself and then must learn to live in the world happily succumbing to the ways of the world or changing the ways of the world without disturbing the helpless and the uninitiated.

Be steady, sensitive and deliberate and you shall enjoy your life as even others around will enjoy your life.

From Page 2 - Sri Purusottam....

Devi Subhadra is accepted as Durga, Bhuvaneshwari and Khambeswari. Some historians have given different opinions that Sri Balabhadra was associated with them and Jagannath-trinity created. The other names of Balabhadra are Shankarsan, Ananta, Shesadev and Rudra. There is a shield on the body of the Sun Temple, Konark and the image of Jagannath, Durga and Shiba are engraved. It indicates that Subhadra is Durga and Balabhadra is Shiba. Chodagangadev is the worshipper of Siva and during his rule the trinity in Srimandir are consecrated in Srimandir. From the beginning, Sri Purusottama with Kamala are worshipped and it is not a concrete fact, but an imagination only. The name Hali, Chakri and Subhadra are in the Pataleswar edict. Sourism in Utkal is also popular. The world famous Konark temple is built by Narasingha Dev. Some are of the opinion that worship of Sun was introduced and Sri Sudarshan is the symbol of Sour worship. Sri Jagannath-trinity is converted into Chaturddha Murtti - Balabhadra, Jagannath, Subhadra and Sudarshan. For some Sri Sudarshan is Nrusingha. Mythology says that Nilamadhab gave a vision in the form of Nrusingha to Maharaja Indradyumna.

During Nabakalebar rituals the Daru of Sudarshan is consecrated by the recital of Nrusingha-Mantra (a Vedic hymn). Some similarities are visualised between Nrusinghaimage and Sri Sudarshan. The passionate semblance of Nrusingha is imagined in the form of Sudarshan.

From the above analysis it is believed that Sri Purusottama is the Adidevata (the 1st God) of Srikshetra. He is the Sovereign Emperor of the Universe. The Jain-chief is called Purusottama by Jains. It is speculated that originally Purusottama is a Jain word. In course of time the worshipped god, Daru of the Sabara tribal has become popular as Purusottama and it is an assumption only. Hence, hundreds of mythical facts, events and stories are related to Sri Jagannath-Purusottama. But history is very feeble in this regard. A devotee gives less importance to logical episodes rather than mythological events. For him, Lord Jagannath is only Jagannath and in his body, mind, spirit and soul. Every event that occurs in this Universe is His will and diversion. A devotee seeks salvation and that is all for him.

Sri Purusottama-Jagannath nourishes the whole Universe. He is very much kind hearted towards his devotees. He establishes perpetual peace on the Earth. He is the Almighty and the greatest. He is the apotheosis of humanism, a cult of universal brotherhood, love, tolerance, equality and fraternity. Every religion lost its identity in Jagannath religion. To be very particular, Jagannathism is the synthesis of Vaishnavism, Shaktism, Shaivism, Sikhism and Saurasim. Really Purusottama-Jagannath is the Lord of the Universe.

Sri Jagannath is always with his devotees and sleepless for them. Any moment He is prayed provides mercy. He is the ocean of kindness and piety. He is the only God of providing Kaibalya (salvation). Simply uttering His name is sufficient for achieving Moksha.

His blessings are poured on the human race. It is humbly prayed before Sri Purusottama-Jagannath, the Lord of the Universe:

"Jay Jagannath Swami, Nayan Pathagami Bhaba Tume."

THE EDITORIAL COLUMN

Detoxification – Renewal of the Body

N. H. Priya Garnaik



Detoxification, a principle of nature, auto-adjustment of things which are in uncontrolled condition. In other words, Nature will take his own path when all things are uncontrolled. In simple meaning, detoxification is a natural process which in turn renew the body, mind and soul. If we obstruct the process of principle of nature, then the normal detoxification is not possible and we invite imbalance in body & mind which causes so many diseases.

Sri Sri Thakur Ankul Chandra, Prophets of this age recommended to take Thankuni leaves daily for all round adjustment & development of Body, Mind and Soul as well. The Devotees of Sri Sri Thakur takes two leaves of Thankuni (Centella Asiatica) with two glass of water, to get rid of environmental toxins (additives, preservatives, insecticides & pesticides), which helps in detoxification, can be perceived after urination.

We brush our teeth, wash our hands, attend the call of nature for urination and elimination of stool, take bath are natural practice as daily works. These practices for detoxification is done by our own body and mind. But, sometimes our autonomic system automatically emits sweat through the larger system skin to cool the body, fired in lungs to throw away the coughs to clean our lungs and makes loose motion to keep stomach in proper condition.

Generally, our body made up of 70% water which is actually of alkaline basis. We use water to clean anything else in our daily life, but not soft drinks or hot drinks and solutions. We need proper alkaline water to detoxify our body. When our body absorb Saline water from the Sea Waves, we clean our body through plain water. So, any type of solution is not needed for cleaning our body. Sometimes, a chemical composition is required to deactivate another chemical composition. So, when our body became acidic, we need some alkaline to balance it. Now-a-days, the food items we consume daily, there is maximum of acidic food and less than 20% of alkaline food. Day by day our body became acidic and we are fall in prey of incurable diseases which leads to succumb in death.

Some of the procedures we have to adopt in our life for detoxification of our body, mind and soul. Why, body, mind and soul. If we fall in distress, our body does not like to work, so the spirit also. Likewise, if our body likes to rest, our mental hygiene also affected.

- **Replace a meal each day with a detoxifying smoothie:**

Naturally cleansing the body a great measure can be to replace one meal a day with a detoxifying smoothie, a great way to jumpstart your metabolism and to kick your digestive system into

overdrive. This isn't extreme and won't cause any harm, but it can be exceptional for getting rid of the substances that your body doesn't need. This can not only help with weight loss, but also with keeping the digestive system working the way that it should.

- **Turn to organic foods when possible:**

The food list known as the "Dirty Dozen" contains a list of foods where pesticides and preservatives can build up and therefore be consumed and ingested by you during digestion.

The rule of thumb generally goes that if you eat the peel or the outside of the fruit or vegetable that you should really opt for organic. Strawberries, apples, and tomatoes are good examples of the types of foods where organic really does matter. Making healthy choices like this will really help you to get rid of toxins that you were previously ingesting, and get your body to a much cleaner and healthier point.

- **Get a good and intense massage:**

Though massage can certainly be a nice luxury or way of treating yourself, it also happens to be a good way of detoxifying the body as well. If you are interested in getting rid of toxins in the body, you absolutely have to get a good intense massage that focuses greatly on the pressure points within the body.

When you push on these pressure points or spots where toxins tend to build up, then you give them a chance to release. This helps you to naturally detox the body and get rid of the things that may have been making you sick. To make it work effectively you want to drink a lot of water afterwards to flush out the system and be sure that the toxins leave the body immediately. Get into this as a regular habit and you will feel a very positive effect from it, above and beyond relaxation at the core.

- **Drink far more water:**

Even if you think that you are drinking enough water in a day, take your intake to a whole new level. If there is one thing that can easily and naturally help you to detox your body, it's definitely water. Water can help to flush out your system naturally, and if you drink enough if it then this happens routinely. Proper water intake can contribute to clearer skin, properly functioning organs, and a more effective circulatory, respiratory and digestive system. So this one simple substance can offer great help to our entire body and the way that it functions. Forget all the rules that you have heard through the years about how much water is enough. Eight glasses in the minimum, so it's time to dramatically increase your intake if you want the best health benefits. Water should be your drink of choice and should be your choice with meals, as well as before and after.

- **Replace the morning coffee with green tea:**

Green tea offers important antioxidants that our body needs in the most natural form. It offers a slight caffeine boost that can help to get you jump started in the morning, just as coffee does.

If you can lean to embrace green tea as one example you are getting a healthy boost of caffeine that naturally helps with detox and gives you some very important antioxidants you need to stay healthy in the short and long term.

- **Get it more exercise and sweet it out:**

When it comes to naturally and effectively cleansing the body, exercise can be a great option to turn to. When you are exercising you are not only helping the body to shed fat and excess weight, but you are also helping to get rid of toxins that may build up. In Walking, due to contraction and excision of the muscles, the toxins deposited in muscles come out with sweat and therefore the cleansing is taking place. Not only that but you are also helping with digestion, circulation and to keep the organs functioning as they should with a challenging fitness regimen.

The perspiration, the breathing and the movement all help the body to achieve fitness and also to get rid of the bad and potentially harmful substances that have built up over time. If you opt to make exercise a regular function in your life, then you can assist the body in the cleansing process on a regular basis. So sweat it out at the gym, not only because it makes you feel good and releases the best hormones, but also because it can help you to naturally cleanse in the process.

- **Eat more fiber in its most natural form:**

Fiber foods can be an excellent supplement for a variety of reasons and cleansing is just one of them. Our bodies, particularly our digestive tracts, tend to hold onto substances that enter after time. This may be toxins, preservatives from foods that we eat, or just waste that is not being properly disposed of by the body. Whatever the cause, the end result is that you may feel bloated, weighed down, unusually tired, and therefore health problems may result out of this.

When you introduce a proper serving of fiber into your diet, it helps to keep the digestive tract

working properly. This means that all toxins, excessive waste, and anything else that has built up in the digestive tract will move through rapidly. There are some great fiber supplements out there, but you should try to eat it naturally whenever possible. Fresh fruits and vegetables, beans and legumes, and whole grains are all excellent sources of fiber. Start slowly to avoid adverse effects, but when you become regular with your bowel movements you will know that cleansing is happening and the body is working in the way that it is intended to.

- **Fasting for a day or two:**

Simply fasting (Intermittent Fasting – 16 Hours of empty stomach) for a day or two and replacing foods with natural juices made from fresh fruits and vegetables can really help in detoxifying the body. When you give your body a chance to rest in this capacity, then it has time to recuperate and rejuvenate. The organs don't have to be focused on digestion and breaking down food and potential toxins. So, as they rest, they have a chance to recharge, and that means you are going to come back from this with natural energy and a more effective digestive system.

- **Avoid obvious environmental toxins:**

Some toxins are quite obvious in their presence and their ability to make you sick over time – these are the ones to avoid at all costs. Environmental toxins can range from smog and diminished air quality to second hand smoke that may be making you sick or that can show up in an unsavory way later. You should avoid the Cigarette smoke, Deodorant spray and room spray which directly mixes with our blood through lungs and skin holes and makes your blood impure and causes blood diseases.

- **Turn to probiotics to get rid of the bad bacteria:**

Probiotics is the powerful substances helps to naturally eliminate bad bacteria in the body. Here are some things to keep in mind as you turn to probiotics for a natural cleansing process. You have probably heard of probiotics in certain foods such as yogurt and they are continuing to grow in popularity. In its natural form, probiotics are a natural and good bacteria that help to regulate and balance of organisms. Since the digestive tract is the most obvious area where these substances can build up, probiotics are an obvious and very helpful too to assist. The use of probiotics not only helps you to keep the digestive system working properly, but also work as a cleansing agent.

- **Try yoga for a new type of exercise and meditation:**

Yoga is not only a great form of exercise, but also help you to meditate as well. Yoga is the body's natural ability to cleanse and get rid of toxins that have built up over time. This is good

for the body and the mind as you have a chance to recharge. These flexibility and balance type of movements can be instrumental to your ability to breath in good cleansing oxygen and breathe out harmful substances within the body. As you move through these poses and breathe properly, you are relieving stress and helping the body to cleanse in a very natural and effective way. This is one example of how cleansing can help the circulatory system in a dynamic way that has many other helpful applications as well.

- **Learn to incorporate superfoods into each meal:**

The great thing about superfoods is that they contain important nutrients and antioxidants which our bodies need to fight off infections. The presence of these antioxidants and nutrients in the body help to fight off harmful toxins and substances that may compromise our immune system and our overall health.

You can also turn to fruits and vegetables that are bright in color as that means that their dark hue contains plenty of antioxidants like Blueberries, Raspberries Spinach, Kale, Eggplant, Tomatoes, Carrots, Sweet Potatoes, Apples, Oranges, Butternut Squash, Avocado, Walnuts, Almonds, Flax Seeds etc. Something as small as a virus or as harmful as a disease is more easily fought off when you include super foods and their important antioxidant concentration.

- **Learn to properly manage your stress:**

Practice a truly healthy lifestyle means to properly manage your stress. You are not releasing good hormones when you body feels stress. As a matter of fact your body may result through weight gain, illness and a complete lack of energy when stress is present. When you feel stress the body is holding onto the harmful toxins and therefore is slowed down.

When you learn to manage stress properly you are taking a good measure at naturally cleansing the body. This is not only a great way to take care of yourself, but to ensure that none of the harmful substances take residence in your body and contribute to improper health in the long run.

- **Turn to home remedies for illness rather than antibiotics:**

The very medications that are intended to help your illnesses or health conditions may be contributing to toxins in the body and contains harmful substances that can build up in your intestines and digestive system over time. Though some medications may be very necessary, it's always best to try home remedies whenever possible. If you can fight off a common illness using options like ginger, lemon, cumin seeds, a smoothie or other natural herbs or plants, then you have a good chance at achieving better health and performing a cleanse in the process.

Continued Page 15

THE SPORTS AFFAIRS

Special moments in IPL 2023

Weather it was Rinku Singh's five sixes, MS Dhoni's autograph to legendry cricketer Sunil Gavaskar or Captain Cool's lap at Chepauk, IPL 2023 has given fans many beautiful moments to cherish. Some of those epic moments are...

Rinku Singh's five sixes

It was really an incredible moment when Kolkata Knight Riders (KKR) batsman Rinku Singh smashed Gujarat Titans pacer Yash Dayal to five consecutive sixes in the last over to pull off a miraculous victory for his team. Fans across the globe were stunned by Rinku's incredible feat.

Dhoni gives autograph to Gavaskar

It was one of the emotional moments in IPL when CSK captain MS Dhoni gave legendry cricketer Sunil Gavaskar an autograph on his shirt. Fans were awestruck by the great gestures of both the legendry cricketers.



Arjun Tendulkar's 1st IPL wicket

After waiting for two seasons in the dugout for Mumbai Indians, Master Blaster Sachin Tendulkar's son Arjun Tendulkar had his great IPL moment when he got his first wicket at the Rajiv Gandhi International Stadium in Hyderabad. Arjun dismissed Sunrisers Hyderabad's Bhuvneshwar Kumar off the last ball of the game.

Kohli-Dhoni bonhomie

After a match between Royal Challengers Bangalore (RCB) and Chennai Super Kings (CSK), Virat Kohli and MS Dhoni were seen exchanging pleasantries. Fans were ecstatic over the great moment and pictures of it were all over social media platforms.



Kohli completes 7,000 IPL runs

RCB's star batsman Virat Kohli became the first batsman in IPL to complete 7,000 runs. He achieved the feat during his side's game against Delhi Capitals at the Feroz Shah Kotla in New Delhi.

Jaiswal scores most run as an uncapped player

Rajasthan Royal's Yashaswi Jaiswal became the highest run scorer in an IPL season as an uncapped player. The emerging batter has scored a total of 625 runs in 14 games at an average of 48 and a strike rate of 163.

First hat-trick in IPL 2023

Gujarat Titans spinner Rashid Khan became the first bowler to take a hat-trick in IPL 2023. He dismissed Kolkata Knight Riders (KKR) batters Andre Russell, Sunil Narine and Shardul Thakur on consecutive bowls to turn the match for his team.

Captain Cool's lap at Chepauk

Led by its talisman MS Dhoni, Chennai Super Kings did a special lap of honour around the Chepauk to thank the home crowd after their match against Kolkata Knight Riders. The spectators went berserk while watching their favourite player leading his team out after the match.



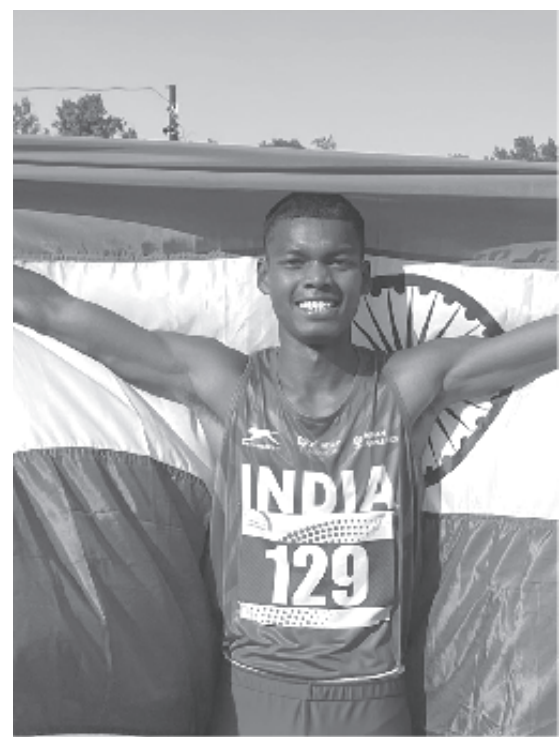
Braving poverty to glory

Odisha has produced several great athletes like Dutee Chand, Srabani Nanda, Amiya Malik, and Jauna Murmu.

Meet 17-year-old Bapi Hansda from Basta area in Balasore district. He is another emerging athlete from the State who has shown enough promise during his fledgling career to carry forward Odish'a legacy in athletics.

Bapi has recently won a historic silver medal in the men's 400m hurdles event at the Asian Under-18 Athletics Championships in Tashkent. He secured the second position in the mega event with a personal best timing of 51.38 seconds.

Bapi first came to the limelight in March last when he won the 400m hurdles race at the 18th National Youth Athletics Championships in Udupi.



Based on his brilliant performance in the tournament, Bapi qualified for the Asian Under-18 Athletics Championships. Subsequently, the talented athlete impressed everyone with his performance in the mega event.

Well, the young runner's journey so far has not been a bed of roses. The youngest of five siblings, Bapi grew up in poverty and endured his share of struggles after losing his father in

2008.

Athletics caught his fancy from a very young age. Soon enough, the emerging athlete's struggles and talents shone through.

Bapi was spotted by the Odisha High-Performance Center in 2019. Since then, he has been training under eminent coach Martin Owens. He has taken remarkable strides in the 400m hurdles and shown a lot of promise within a very short span of time.

"I joined SAI hostel in 2019. Next year, I gave a trial at Reliance High-Performance Center. After clearing the trial, I joined Reliance HPC and trained in 800m for two years. However, I didn't have any improvement in that event. After consultation with the coach, I changed my event," said Bapi.

Buoyed by his performance in the Asian Under-18 Athletics Championships, the promising athlete has now set his sights on upcoming mega events like the Commonwealth Youth Games 2023 and the Junior World Championships next year.



"I have been training in 400m hurdles with my coach Martin Owens for the last four months. Recently, I have won a silver medal in an international tournament. My confidence level is sky-high now. I am preparing for the upcoming Commonwealth Youth Games in August," Bapi said.

Coach Owens is also optimistic about Bapi's prospects in the upcoming mega events too.

"We will be looking for the Commonwealth Championships in August and then prepare for the Junior World Championships next year. This kid has a lot of potential. I am hopeful that he will perform well in both tournaments," said Owens.

FACTS TO KNOW

5 Must – Know Facts about 5G Network Security and its Cloud Benefits

5G is a game changer for mobile connectivity, including mobile connectivity to the cloud. The technology provides high speed and low latency when connecting smartphones and IoT devices to cloud infrastructure. 5G networks are a critical part of all infrastructure layers between the end user and the end service; these networks transmit sensitive data that can be vital for governments and businesses, not to mention individuals. As a result, 5G networks are a prime target for attackers. For this reason, cybersecurity has been a key consideration in developing the 5G standard.

5G encompasses robust security features that guarantee confidentiality, integrity, and availability of network services and user data. In this article, Seva Vayner, Product Owner of Gcore's Edge Cloud service, gives a deep dive into five of 5G's cutting-edge security measures. He also delves into the pivotal performance capabilities of 5G, accompanied by use cases that demonstrate how contemporary, cloud-native enterprises can leverage this transformative technology to their advantage.

What Is 5G

5G is the new standard of wireless networks that supersedes 4G (LTE). It is designed to connect people and devices at fast speeds with low latency.

The throughput of 5G far exceeds the throughput of 4G. In theory, 5G offers up to 20 Gbps in the downlink. In comparison, 4G only offers up to 100 Mbps, 200 times less than 5G. According to the 2023 CELLSMART survey, in practice, outdoor tests show that 5G operators in the US and EU provide close to 1 Gbps for the downlink channel.

As for 5G latency, it can be up to 10 ms (vs. 30 ms in 4G)—but only in a test environment. In reality, latency depends on many factors. For example, Ericsson's tests in the US showed that 5G latency is typically around 20 ms but no more than 50 ms, which is virtually unnoticeable to humans. This is good news for gaming, where latency higher than 50 ms is critical.

5 Must-Know Security Features of 5G

Essential 5G security methods and technologies include encryption, privacy protection,

authentication and authorization, network slicing, and network equipment security assurance. Let's look at them in more detail.

1. Encryption

Encryption protects user data and network traffic from eavesdropping, interception, and tampering. 5G uses strong encryption algorithms such as AES, ZUC, SNOW 3G, and HMAC-SHA-256. The encryption features include a separation of the security keys between the core network segments. Also offered is fast synchronization of the security contexts in the access network (base stations) and the core network.

2. Privacy Protection

In 5G networks, privacy protection is ensured through the use of encryption and various other techniques. These strategies effectively guard against significant threats like IMSI/TMSI-catchers, which attackers commonly use to identify and track network subscribers. Mobile operators can implement the Elliptic Curve Integrated Encryption Scheme mechanism to conceal and regularly update a subscriber's temporary identifier (TMSI). In addition, operators can detect false base stations, which are often the source of IMSI/TMSI-catchers.

3. Authentication and Authorization

Authentication and authorization in 5G is based on the Authentication and Key Agreement method (5G AKA). It includes a robust authentication mechanism to verify the identity of users, devices, and network elements. Unlike 4G, 5G doesn't require physical SIM cards for credentials, but also supports pre-shared keys, certificates, and tokens. Mobile operators can choose the authentication credentials and authentication methods best suited to their customers and IoT devices. For example, traditional SIM cards are suitable for mobile phones, while digital credentials are more appropriate for simple IoT devices equipped with eSIM.

4. Network Slicing

Network slicing allows the creation of virtual networks for different services and applications. For instance, a subscribing company can use one network slice for high-priority employees with access to

corporate services, and another slice for low-priority IoT warehouse sensors that transmit data to storage in a public cloud. Each network slice can be assigned specific security policies and protocols, helping to isolate and protect data and services.

5. NESAS

NESAS, or the Network Equipment Security Assurance Scheme, ensures the secure implementation of telecom equipment that mobile operators use in their networks, including 5G. Developed by 3GPP and GSMA, NESAS establishes security requirements and rules for successful infrastructure audits. NESAS takes into account both local and global cybersecurity regulations, for example, the EU cybersecurity certification framework. It is mandatory for vendors and mobile operators to comply with NESAS requirements.

How 5G Benefits Cloud-Native Companies

With its low latency, higher bandwidth, and extensive security measures, 5G strengthens the security of cloud connectivity. This upgrade enables secure and reliable transmission of sensitive information as well as real-time data processing. 5G allows organizations to confidently use cloud services to store and manage their data, reducing the risk of data breaches.

5G offers superior fault tolerance when compared to cable connections, primarily due to the inherent resilience of wireless channels in mitigating communication failures. With a cable connecting an office or factory to a provider, it might be necessary to build a backup connection through an optical fiber or radio. But 5G has a reserved channel from the outset. If one base station fails, others will take over automatically, making downtime unlikely.

In addition, 5G network slicing capabilities provide companies with dedicated virtual networks within their IT system. This enables better isolation and segregation of data, applications, and services, improving overall security. Enterprises can create customized network slices for specific tasks or particular departments. This feature ensures that critical data and applications remain separate and protected.

Where 5G Can Be Useful in Conjunction with the Cloud

Healthcare. Doctors can use tools like a cloud AI platform to remotely monitor patient health data in real time while remaining mobile via 5G. After the medical examination, high-resolution medical device images can be uploaded to the Cloud AI platform, processed, and returned to a doctor for further use. 5G also helps with ML diagnostics: a cloud ML application can receive images or other medical data over 5G for disease prediction, detection, and classification.

Secure access to corporate tools. With 5G data protection, access control management is enabled for each SIM card. Authorized employees can securely access corporate digital assets, data, and applications while working remotely without the need for a VPN or firewall is required.

Streaming. With 5G and cloud services like CDN, streamers, bloggers, and podcasters can enjoy uninterrupted, high-quality, live video and audio streaming. 5G facilitates the fusion of interactive elements within live video streams while instant video analytics generate real-time metrics that enrich the overall live event experience.

Smart factories. Manufacturers can predict maintenance needs and detect potential problems or failures by monitoring equipment data with IoT devices. They can use ML cloud services for analytics, while 5G provides a secure and fast connection to their cloud infrastructure.

Automotive IoT. Because of their performance capabilities, 5G networks are a superior means of data transmission in industries. In the self-driving vehicle industry, data from the vehicle's sensors and cameras can be easily sent to the cloud at high speeds, and then processed by cloud AI tools.

Gcore's 5G eSIM Platform

The 5G eSIM platform from the global cloud and CDN provider Gcore provides a powerful example of a collaborative 5G and cloud solution. The 5G eSIM platform offers access to IaaS, PaaS, AI infrastructure, a streaming platform, and other Gcore services over 5G. Gcore's customers can securely connect to their cloud infrastructure via a direct private channel from more

than 150 countries worldwide. 5G eSIM ensures secure data transmission through advanced encryption algorithms and security protocols.

Here is the architecture of the platform:

Besides the 5G security features that are built-in in the standard, the 5G eSIM platform provides:

- Control of traffic consumption** for configuring a white list and a black list. These allow or deny specific protocols, URLs, and IPs.
- Workgroup management** for assigning employees' names to eSIMs and grouping them by function, seniority, or department.
- Detailed reporting system** to view the report by group, period, eSIM, country, and more.
- Personal eSIMs** for each employee to assign them a corporate mobile number. Employees can access the internet and internal resources from a remote location without the need for a corporate VPN and without roaming charges.
- Secured individual routing and traffic filtering** to ensure protection against cyberattacks and data leakage.

In addition, Gcore provides functionality within its Cloud to secure all customer services:

- Identity and access management
- Firewall with flexible security group configuration
- Secrets management
- IaaS protection

Customers can combine these cloud features with the benefits and features offered by the 5G eSIM platform.

Conclusion

5G has excellent performance capabilities and advanced security features such as encryption, network slicing, and 5G AKA. 5G networks are more resilient and flexible than LAN and WLAN networks; this makes 5G more effective in terms of technological advancements, business interests, and compliance with security requirements. As a result, 5G networks help businesses evolve faster without reducing the level of infrastructure protection.

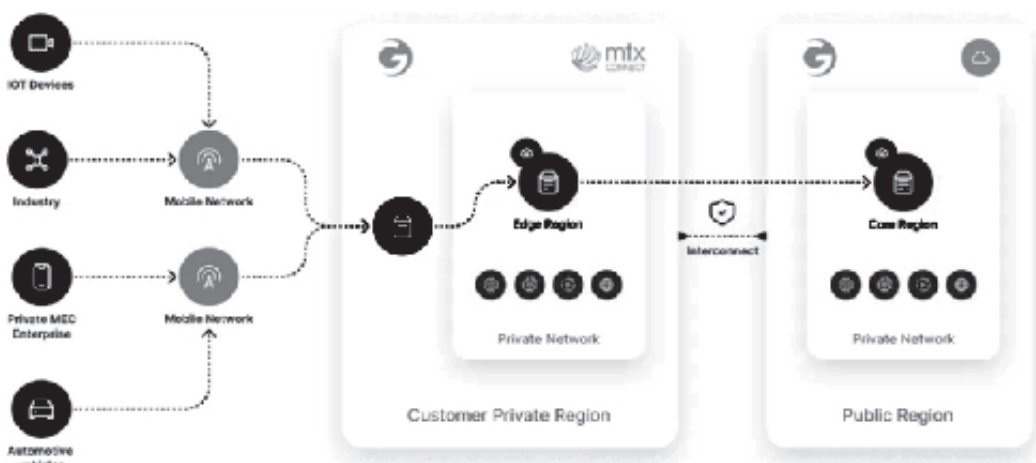


Figure 1. Gcore's 5G eSIM Platform architecture

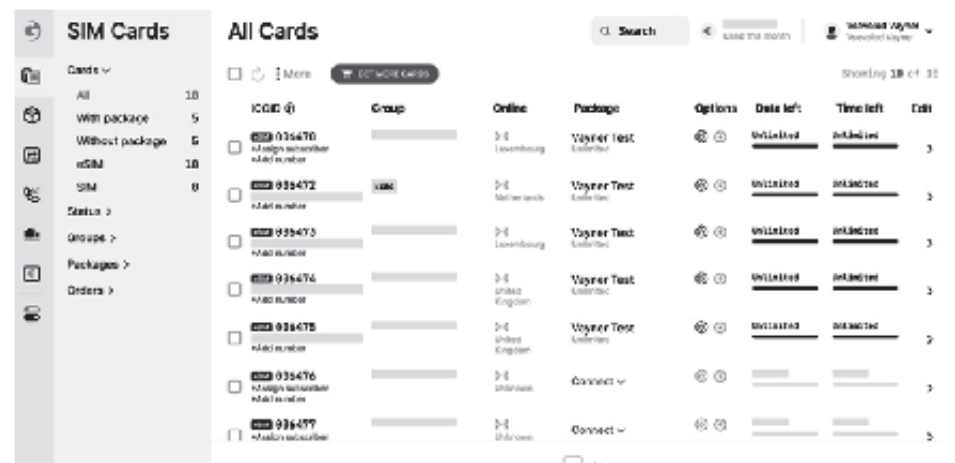


Figure 2. Gcore's 5G eSIM control panel

PHYSIOLOGICAL SCIENCE

Balancing Factor in Life

Happy living means thinking right without hankering for more material gains, the acquisition of which may cause behavioural problems like anger, impatient, intolerance and dejection that subtract from our happiness. A man of Anger, Greed, Violent & Impatient can not control himself and marked as an abnormal entity. Stress due to outstanding debts may cause anger and intolerance and your behaviour might get out of control. If you're not choosing correct responses, but merely reacting emotionally, you become a victim of your own circumstances. Then mental illnesses such as depression and schizophrenia may overpower you and push you to take extreme measures like taking your own life. Being normal can catch the normal and abnormal things both, but an abnormal cannot catch the normal things.

Now-a-days, the expectation for material development of human beings are so high. As humans we have an instinct for curiosity and complex behaviour. The urge to achieve more is unending, there is no satiation. Making more money, achieving high position, fame and name – all these goal-oriented pursuits are not significant in themselves. The more you achieve, the more you crave for. Any experience of happiness or joy is short-lived in competition.

What makes one happy? If only we knew the answers to this, we would be able to come up with ways to tune up our consciousness.

The drama of life and human reactions and consequential behaviours are strange indeed.

Your near and dear ones might get closer to you when the going is good but may distance themselves from you in the hour of need and grief. How does one deal with the ups and downs of life and face challenges with strength and equanimity? We need to first come to terms with

Prabhu Prasad Gadnayak

feels satisfied, a calmness is experienced and there is no urge to acquire more even at the cost of compromising one's health or relationships.

Craving for more and more is attributed to lack of resistance

because they have figured a way to balance their lives with their living environments.

How can the individual get balance? To gain balance man needs to have a balancing factor in life. The balancing factor is the living Ideal – the Purushottam of the age. He is

Thakur asked Dr.Parija if he ever went to the market to buy vegetables. Dr.Parija replied that he had been to the vegetables market a number of times in his childhood as per his mother's direction. Sree Sree Thakur then asked him how he knew if the shop-keeper was giving him the right quantity every time he went out to buy vegetables. Dr.Parija mentioned that the shop keeper used to put vegetables on one side in the balancing scale and put weight on the other side. Once the big needle in the middle of the balancing scale aligns with the small needle on top, I knew I had got the right quantity.

Sree Sree Thakur in a loving tone said, "In this world, where the man is riddled with so many problems and challenges how can he find that balance in the balancing scale of life? Don't you think that like the big needle, the man has to align to someone in life? Don't we need that small needle in our life? Don't we need that balancing factor in life the Living Ideal?"

That, day Dr.Parija understood the importance of having a Living Ideal in life and the true meaning of finding balance. When we accept the Living Ideal, all aspects of our life move in tandem. We achieve perfect balance.

When we align ourselves with the Living Ideal, our innate and instinctive qualities flourish.

When Ideal is awake in man,

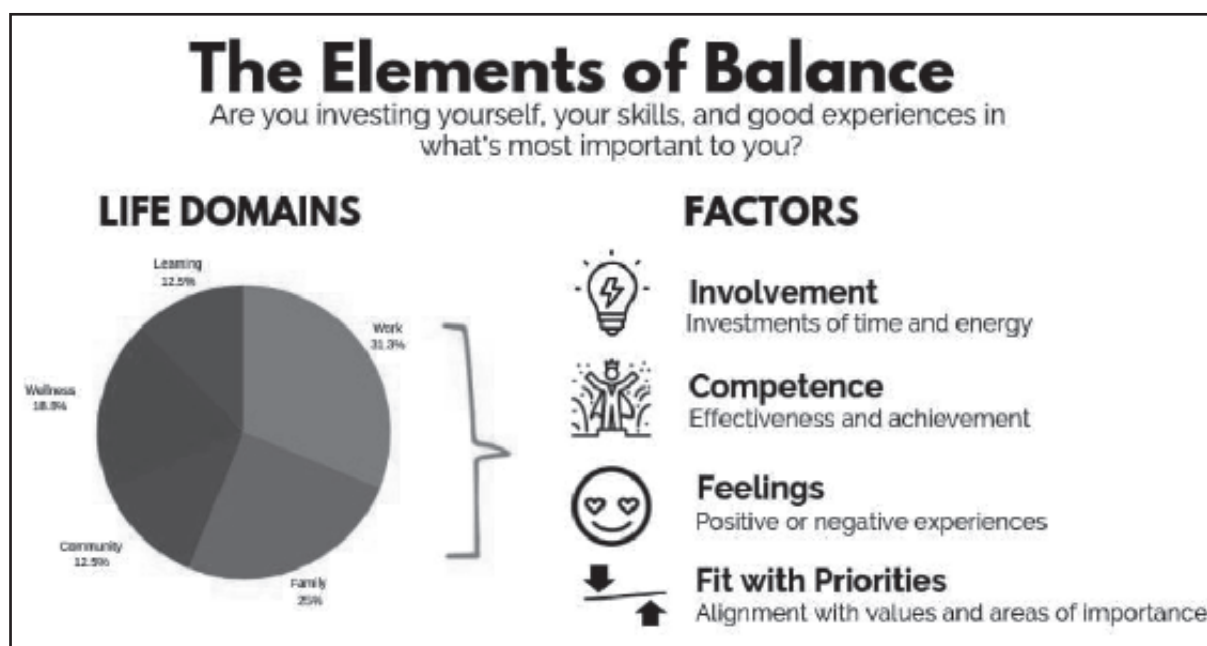
He is Active, Agile, Inquisitive,

Responsible, Alert & Tactful,

In a Word All Faculties Bloom

And Glow.

-Sree Sree Thakur, The Message.



the fact that pleasure is derived from something outside whereas joy arises from within. The cause of unhappiness is never the situation, but it is all about the thought. Therefore, separate the thought from the situation and let the thought find its balance in the equanimity of stillness. Right living comes from right thinking, for it is thoughts that ultimately get translated into action.

Contentment is something that engenders right living and helps one find joy within. When one

against material allurements. The Gita defines suffering caused by faulty thinking perspectives, beliefs and attitudes which are taxing our emotional state. The solution for all problems lies in resolving them through transformation of our understanding of them.

People can train themselves to be happier by changing the way they think and perceive the world. People are happier who live simple and think right. They feel less stressed and less depressed

fulfiller the best. Man has to align himself to the Living Ideal to achieve balance and harmony is life. He is the embodiment of energy, embodiment of complex, embodiment of happiness and embodiment of love, that why He is Parama Premamaya and Sat-Chit-Ananda, Satchitananda.

Famous scientist, Dr. P. K. Parija was on a visit to Satsang Ashram, Deoghar to spend some time in the divine company of Sree Sree Thakur Anukulchandra. During their conversation Sree Sree

From Page 12 (Detoxification – Renewal of the Body)

● Increase circulation by massaging pressure points and skin brushing:

You probably brush your hair and your teeth every day, but more than likely you don't stop to think about brushing your skin. The truth is that brushing a fine bristle brush/or rough towel at the time of bath gently over all of your skin surfaces can be an excellent way to stimulate circulation. While this often looked to as a method to help to eliminate cellulite, the truth is that this is good at stimulating circulation and ridding the body of toxins that may build up over time. The toxins are pushed to the surface and then flushed out and be sure that you are drinking plenty of water to help flush out the toxins naturally.

● Promote elimination through proper diet and hydration:

The truth is that most of us don't attend the call of nature twice a day and properly eliminate each and every day. Unless you are very regular with your bowel

movements and even your urination, you are holding onto waste in the body that need not be there. The principle of nature is to attend the call of nature two times a day before sunrise and after sunset. If you don't have enough bowel movements, that waste material can end up being stored by the body and the end result is that it turns into toxins.

For proper bowel movement eat enough fiber foods, fresh fruits, vegetable, lean proteins, beans and legumes, whole grains, good fats and low fat dairy, drink water and urinate. These are all important things for your health and for learning to naturally and effectively cleanse. If you are not getting enough water to flush out your digestive system properly and move the toxins out, your overall health will not be good. Eating the right foods with a major focus on fiber is another way, and an important one that ensures that you move the waste materials out of the body. Keep track of these things and make the necessary changes to ensure that urination and evacuation are

happening regularly to keep things moving along properly.

● Learnt to meditate and incorporate this into your life each day:

Just as exercise helps you to get rid of the toxins, so too can meditation. It's good for you mentally and that means exceptional benefits for the entire body as well. Learning to incorporate meditation into your everyday life can ensure that you let go of any built up tension, anxiety and stress. This is good for your mental health of course, but it also translates to an immediate benefit to your physical well being in the process. You will love the direct and indirect benefits of meditation as part of a healthy lifestyle. When stress takes over your life, you are not in your best health and your body is bogged down with toxins and anxiety that keeps you from being your best.

● Turn to natural herbs and holistic medicine:

Options like green tea, basil and even cilantro have some natural cleansing properties and you can easily add them into your favorite

dishes or enjoy them on their own. Using these natural herbs can offer great help with cleansing the body, but you do have to be sure from the professionals to choose which ones are right for you and then use them properly. Some of the herbs that offer great cleansing in the body include Dandelion, turmeric, Milk thistle, cypress, hydrangea root, gravel root etc. Be sure that you know that to choose and how to use it, but then know that these herbs will help to naturally and effectively Cleanse.

● Avoid second hand smoke or any other harmful toxins that you may come into contact with:

Stop inhaling the smokes of cigarette for a moment to pass the smoking area to avoid the harmful toxins to affect your lungs.

● Perform a full body cleanse every month to get rid of any toxins that have built up:

A proper cleanse using these or other natural methods performed once a week can be the best thing you can do to get rid of toxins and keep things moving the way that they are

intended to. Always go for natural for best effects.

● Learn to truly take care of yourself and listen to your body when something is or is not working:

You have seen all of the various methods and tools to do that, but sometimes you also have to listen to your body as well. It is all about taking care of yourself in the best way possible. If you are having frequent headaches, stomach upset, diarrhea, constipation, feel exhausted, experience cramping, difficulty focusing, lack of energy, or any other symptoms that don't feel right, then always take the time to listen to your body. This will ensure that you know that something is amiss and can likely pinpoint that a cleanse is required. You will learn which methods and tools work best for you to cleanse properly and take the measures to do so. You will also learn to be better at listening to your body and making the best decisions for your overall health.

ENVIRONMENT AND CLIMATE CHANGE

REDISCOVERING ETHNOMETEOROLOGY AS A RISK REDUCTION STRATEGY FOR AGRICULTURE ADDRESSING CHALLENGES OF CLIMATE CHANGE

Priyambada Pattanaik

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Abstract

Adoptions and adaptations to cope with vagaries of nature that developed on the basis of ecological knowledge have made humans distinct. Observation and understanding of weather behaviour shaped nature-based occupation, culture, society, war and politics and so on all through the human history. Its importance was realised so much that humans have deified the elements of nature that shape climate. After the modern meteorology emerged which uses modern means, people's knowledge that we inherited over millennia became less important suddenly. But after a long gap, scientific communities are trying to rediscover this ethno-meteorological knowledge stream. This article argues that, it is not enough just to collect the existing ethno-meteorological knowledge but it should be combined with modern weather knowledge system as risk reduction strategy, mainly for a vulnerable occupation like agriculture on which maximum people depend upon through participatory learning method to meet the climate related challenges which could be applicable to other fields as well.

Introduction:

Use of fire to warm up, bark and animal skins as clothes, cave as house, storage of food for future - these were probably the most ancient and fundamental things, discovered and adopted by human beings which helped them to cope with the vagaries of nature. These things made humans distinct as compared to other creatures in nature. If we look at our own evolution, human beings have been taking interest in understanding weather since beginning which shaped their occupation like farming, trade and commerce, fishing, culture, rituals, spirituality and even war and politics. Civilisations flourished on the phenomenon of weather observation and making use of that knowledge on day to day

human beings' attempts to personify or deify them. Ancient Indian scholars identified the five vital elements of nature namely earth, water, radiation [light plus heat], air and space which are also elements of weather. Changes in the behaviour of these elements were noticed with awe in the beginning and then observed more meticulously to understand and anticipate the changes and developed the coping mechanisms on that basis. To understand the weather phenomenon, five sensory organs of the body were the first instruments humans used. With passage of time, human beings also developed the ability to identify and observe biotic and abiotic indicators for generations and later developed some simple instruments to the present hi-tech satellites and computers along with mathematical models to forecast weather and to use the knowledge for their benefit.

The long and rich history of weather observation or ethno-meteorology or ethno-climatology or folk meteorology did not remain only an oral tradition all through the history, rather in some civilisations; it is well documented like in India. Given here are examples:

Red sky at morning sailors takes warning

Red sky at night sailors delight

Lightning never strikes twice in a day

As the nights lengthen, the cold strengthens

Methodology:

The living beings depend on food for their existence. The availability of food depends on the monsoon. Therefore, the rainy season deserves careful investigation.

Around 500 A.D, the great Post-Vedic Scholar Varahamihira of India emphasised the importance of meteorology which seems pragmatic or factual, in his seminal creation, 'Brahatsamhita' in the following mentioned verse



treaties on branches of science, mythology, religious scriptures and spiritual treaties in olden days before 1000 A.D left where weather phenomenon is not reflected. Sages like Kashyapa, Garg, Parashar codified, consolidated and shaped this knowledge. Notable ancient mathematicians and astronomers like Bhaskar and Aryabhata developed some instruments to measure weather parameters.

They all belong to our incredible Jan Gyan Sampada [Wealth of Indigenous knowledge].

Such things are found across the continents, not only in India.

Analysis of ancient and modern meteorology:

After the modern meteorology emerged which uses modern means, people's knowledge that we inherited over millennia became less important suddenly. But after a long gap, scientific community are trying to rediscover this knowledge stream.

Dealing with, recognising and understanding indicator-based ecological knowledge developed by local expertise guided by generations of experience requires a major shift in our expert-centred thinking which considers as a challenge to our scientific community. It is difficult for the people of a machine-oriented and information-based civilisation to realise its value, but it is a question of considerable importance for people whose livelihoods depend upon nature.

Few examples are cited below to elucidate the renewed interest of scientists and policy makers in ethno-meteorology.

Initially dismissed by western science, it has only recently been realised that there is an underlying scientific basis underpinning much of the indigenous weather knowledge (IWK), and a renewed interest has resulted. (Whitaker, 2010) says Dick Whitaker, the famous Australian weather expert.

'The Indigenous Weather Knowledge project, which is funded by the Australian Research Council and ATSIC, aims to record 50,000 years of weather observation, knowledge of weather phenomena, weather patterns and long-term environmental changes by Indigenous Australians'.

We have all of this indigenous knowledge out there to do with weather and climate, and we were in danger of losing it, unless we are able to fairly soon get it down on

paper from the traditional owners of the knowledge and document it', argues Professor Nigel Tapper, from Monash University's School of Geography and Environmental Science (website abc, science).

Canada has undertaken an interesting task of understanding the arctic weather by including the ecological knowledge of 'Inuits'. Now researchers are combining indigenous environmental knowledge with modern science to learn new things about what's happening to the Arctic climate (Science daily, Apr.7,2010).

In Kenya, 'the Nganyi rainmakers have begun collaborating with meteorologists, combining their indigenous knowledge with modern science, to help them make more accurate weather forecast for the communities that depend on their advice (Moore,2010).

After the 2004 Indian Ocean Tsunami, two success stories emerged, bringing new interest to

but not sufficient to test and apply the weather knowledge existing in the communities. Paul Richards (Richards, 1989) is persuasive in saying, 'science is a collective venture, and in consequence, it is interesting and often profitable to pay attention to the social and cultural context within which scientific activities take place. Arunachalam (Arunachalam, 2002) emphasises, 'most of the indigenous knowledge descends from ancient tradition and would need a proper validation and documentation (Arunachalam,2002).

Elements of Ethno-meteorology and its importance in Agriculture:

Peoples' weather knowledge reflects a healthy human-nature relationship since a majority of rural / tribal people are engaged in nature related activities and do not see themselves in isolation from nature. Respect for elements of nature evolved in this process. If we go little deeper, we will realise that the very 'cultural clock' of a



the concept of indigenous knowledge. The Simeulueans living off the coast of Sumatra, Indonesia and the Moken, living in the Surin Islands off the coast of Thailand and Myanmar both used knowledge passed on orally from their ancestors to survive the devastating tsunami (website unisdr, DRR).

For the first time in history, over 400 people from 80 countries attended the 'Indigenous Peoples' Global Summit on Climate Change' held from 20 to 24 April, 2009 at Anchorage, Alaska that was organised by UNU- IAS. H.E Miguel d' Escoto Brockmann, President of the UN General Assembly to the Indigenous Peoples' Global Summit to Climate Change aptly stated, '...indigenous peoples interpret and react to the impacts of climate change in creative ways, drawing on traditional knowledge and other technologies to find solutions that society at large can replicate to counter impending changes (website unutki, climate change).

Parama Bhattacharya observed, 'local knowledge was rarely taken into consideration by policy makers in designing risk reduction strategies and very few institutional mechanisms exist to mainstream traditional coping and adaption (Bhattacharya, 2010).

These few examples only reflect the renewed interest and importance of ethno-meteorology,

community is revolving around weather! Our ancestors tried to identify the natural capacities of different elements and developed the ability to indicate / anticipate change in weather and also developed local level activity plans and rituals, adaptation strategies / coping mechanisms based on predictions. They made judicious use of ecological knowledge based on accumulated collective experiences. There were and still there are local level experts on this though their tribe is vanishing fast due to devaluation or underestimation of such knowledge system in a formal world. On the other hand common people in developing countries do not have, more often than not, access to reliable scientific weather forecasting systems or devices.

The existing weather knowledge could be divided into two major methods. First, 'observation method' which has been used by the mass and the knowledge is owned by the mass. For example, predicting weather based on the observable indicators like behaviour of birds, animals, plants, atmospheric and celestial phenomena. Second, a more complex 'theoretical method (Shah, 2002) was developed over ages that use mathematics and computation of planetary positions and such knowledge is possessed by a trained class.



activities. Any civilisation that successfully used or managed the knowledge of weather to its advantage succeeded more in advancing the civilisation; our ecological history reveals this. There is probably no society on earth which does not have knowledge of weather.

Importance of Ethno-meteorology:

Recognition of the importance of elements of weather is reflected in

which is just an instance of deep ecological knowledge developed in that early period.

This is just one example. 'Early philosophical writings of around 3000 B.C such as Upanishads contain serious discussion about the process of cloud formation and rain and the seasonal cycles caused by the movement of Earth around the sun (IMD website, history). In India, there is no oral tradition or literature including great epics,

Continued Page 17

In India, 'Panchangas [almanacs], first delivered the annual meteorological services to common people which are based on theoretical calculations. In modern age, normally bio-

[2] Validate / invalidate it by testing and
 [3] Use it to our advantage
 But, more than anybody else, the vulnerable groups will benefit most for whom weather is the



indicators are studied in pollution research and environment dynamic research to indicate wellness / problems / signals of a given environment / ecosystem; but rural indigenous people use it to plan their activities related to their occupation / rituals etc. One need not be emotional about people's knowledge just because it is there for ages, but it is important to:

[1] Collect / document / catalogue before such knowledge vanishes from our society

most critical phenomenon for livelihood and very survival. We have to rediscover it, which will tell us a lot about the climate story. Ethno-meteorology could be a potential community monitoring tool for disaster warning and disaster preparedness and could be used as a part of the safety net. This could help us to develop mechanisms for participatory approaches in natural resources / environment related research policy / practice. More than anything else, it will help people for operational planning and decision making.

A small effort of participatory learning of indicator-based weather prediction could be shared here. It could be a story of 'Indication to Action'. It is the story of an NGO, named Sambhav, located in the state of Odisha in India. It was started in the year 1989 focussing on the environmental and gender issues. The group was living on a completely eroded piece of land which was abandoned by local people since nothing could be grown any longer there. This group took up the challenge of rejuvenating it on ecological principles. It was a great challenge indeed with scanty resources. People thought that it would be simply impossible to do. The place did not have any modern communication facility. They had to struggle for everything. Often out of passion and compulsion, they had to rely upon the knowledge of local people for many things. They needed weather information for planning their activities, and the available information was not reliable from the only radio station available with them. So they were thinking of some alternative means which exposed them to ethno-meteorology while discussing with people. It is also true that all the group members grew up with ethno-meteorology from their childhood since they were from that locality. But then the question of reliability arose. No one in the area tested them ever systematically. So a decision was taken to document them and test them in spite of lot of limitations. Indicator-based weather forecasting was chosen for study. So anybody, literate or illiterate, young or old, man or woman, could participate. It was decided to make the effort continuous, spontaneous and not a onetime activity. Fortunately the present author was a part of the entire process. Let us see how it was done.

Suppose somebody was telling about a particular indicator, it was written down as the major premise and then the name, address of the informant and date was also mentioned there. Every time somebody was noticing a particular indicator, she/he used to inform the main person responsible for documenting. Then the weather behaviour used to be observed. Some concrete examples of indicators and indications are given below for better understanding.

There are many more examples like these in all communities all over the world. Here is an example of the actual study.

Major Premise: 'When black ants carry their eggs in the day time, it will rain within 2-3 days.'

Then, whenever group members were observing black ants carrying eggs, the date / time / place where noticed was recorded. After every 20-30 cases, it could be found out, in how many cases the clouds are formed, in how many cases it rains, in how many cases it rains within how many days etc. Then after some continuous observations for 4-5 years, actual result, identification of trends, doubts, unsolved questions, new aspects could be understood, and activities on that basis were planned.

In the process, 3 kinds of black ants in the farm were observed and all of them carry the eggs before rains / clouds. This was not clear in the main information. Then it was found: in

100% cases clouds come [in case of all 3 kinds of ants] ; but one variety can indicate rain around 70% correctly, another variety can indicate 90% correctly and the third type of ant indicates the rain 99% correctly. It was never observed that ants carrying eggs in the night time. Since the scientific names of those ants were not known, the group used to name them

100% ant, 70% ant, and 90% ant. Unless some ant scientist help to identify them, it is difficult for common people to identify correctly the ants from [recorded till now] '22 sub families, 299 genera and 14095 species. It sounds funny, but that did not matter much as long as they were observed properly.

Similarly, flowering pattern of Shatabari [Asparagousracimosa] indicates the monsoon pattern. If we can forecast monsoon pattern, it will be easier to forecast the crop pattern, disease pattern and patterns of coping strategies.

This is an example of a biotic indicator; let us have an example of an abiotic indicator observation. If the colour of the setting sun is bright red, it will not rain at all in next 24 hours, if the colour is bright yellow, clouds will come, but it may or may not rain, but if the colour is very pale yellow, it will rain in next 24 hours [99%]. If it is white, clouds will be there, but

most likely it will not rain. Sometimes you may not be able to see the setting sun also. Every day the colour of the sunset is recorded and the weather in the following days are observed. Then lessons are drawn. It was much easier to plan for daily activities on that basis. Ultimately it helps in reducing operational risks.

One may not have to spend time separately for observing these phenomena. It should be part of life. But minds need to be trained to be aware of the elements in nature to understand and interpret the gestures of nature. In fact multi-location studies in similar socio-cultural set up and geographical zone will help to understand weather knowledge better.

Indicators are selected and developed on the basis of the occupation, shared values, cultures and inter-generational knowledge and experiences of people. There is no standardised process of identification of bio-indicators. Bio-indicators are specific to bio- geographic regimes and hence we need not look for common indicators for all the places. Different groups like farmers, fishing communities, hunter-gatherers etc. have identified bio-indicators specific to their own interests / needs. It is important to note that food production has improved after 1960s, but the farming communities across the developing countries continue to face many risks and uncertainties arising out of weather variations besides other factors. Farmers in developed nations are no exceptions in spite of all advancement in technologies. But their contribution of agriculture to the GDP is less and arrangement for well managed government backed support system reduce their actual vulnerability compared to the farmers in developing nations whose primary occupation is farming and allied activities and who live in areas where modern technologies are yet to be used for their benefit. When somebody's livelihood is at risk, vulnerability increases.

Conclusions:

It is not adequate to collect weather knowledge of communities, but it is high time now government meteorological department, civil society organisations, farmers and rural youth, school and college students, scientists and research scholars start collaborating to compile, test or study, validate and utilise the indigenous weather knowledge to reduce risk in agriculture and different fields. If small ants can help plan to reduce their risk due to weather fluctuations, why not we use the ecological knowledge to enhance resilience? Remembering Aesop's famous story - 'the ant and the grasshopper' in this context. We can successfully combine scientific knowledge with indigenous knowledge to our common benefit. There could be a global participatory project on this.



Some Examples of Biotic-indicator Based Forecasting	
Indicators	Indications
Winged Termites flying around	Will rain shortly
Dragon flies flying low	-do-
Frogs croaking in chorus	-do-
Black ants shifting eggs to higher places in day time	-do-
Cows moo [make long calls] in the middle of the night	-do-
'Gendalia' [a bird of crane family] circles in the sky	-do-
Sparrows bathing in the dust in midday	Rain with storm
If people who normally do not sweat much, sweat very badly and feel very restless	-do-
Good foliage in <i>Aswathha</i> [<i>Ficusreligiosa</i>]	Good monsoon
After the emergence of tender leaves in <i>Aswathha</i> [<i>Ficusreligiosa</i>]	Rain will start within 10 days.
Flowering pattern of <i>Shatabari</i> [<i>Asparagus racimosa</i>]	Can indicate the monsoon pattern for the next rainy season
More mango flowers and fruits	Excess rain in the coming monsoon
More Tamarind fruits	Scanty rain in the coming rainy season
Flowering in Bamboo	Famine
Some Examples of Abiotic-indicator based Forecasting	
Indicators	Indications
If there will be lot of cloud in the day time and night sky is clear [<i>Dinare hula hula, ratirenrjala, khanakahechashibhaire se deshachhadipala</i>]	Scanty and erratic rainfall in the rainy season that will lead to crop failure
A ring or corona too close to moon	No rain in near future, dry spell
A huge bright ring around the moon or Halo and astar within that	Will rain shortly
Continuous foggy or cloudy days in winter	Crops will be affected severely by pests like aphids and diseases like blight
Continuous drizzling in rainy season for long time	Crop damage due to pest and disease attack time
If clouds are of black colour and seen at a lower height as if hanging over our head	Will rain shortly
- If the colour of the setting sun is bright red - If the colour of the setting sun is bright yellow - If the colour of the setting sun is very pale yellow	- There will not be rain in next 24 hours - There will be cloud, but it may or may not rain in next 24 hours - There will be rain in next 24 hours
If it rains and rivers flood between 10 th day and full moon day (<i>ShuklaPaksha</i> [brighter lunar fortnight or waxing moon])	Flood water is difficult to recede
If wind blows from the opposite side of the direction in which clouds appear	It will rain shortly
If wind start blowing from the southern side during the rains	Rains will stop shortly and flood water will also recede
- Lightning in eastern side - Lightning in western side	- No rain - Will rain shortly
- If clouds move from east to west - If clouds move from west to east	- There will be drizzling continuously for 2-3 days, but not much heavy rain [<i>PurubeJhadi</i>] - There will be downpour / torrential rain, may be with storm [<i>PaschimeBadhi</i>] - There will be no rain [<i>Utavrechhadi</i>] - It will rain shortly [<i>Dakhinaku jai takshyanebarsai</i>]
- If the clouds move from south to north - If the clouds move from north to south	- There is a low pressure in the bay far from the coast - Will rain shortly due to low pressure
- If the clouds look like a hoed field with small patches - If the clouds look like hoed field with bigger dark patches	

OIL AND GAS

Future refineries in India may be smaller capacity: Hardeep Singh Puri

"Refineries are high cost. We are looking at a large number of 20 million tonnes per annum, smaller ones, because if I make it too big than land acquisition and other issues come in the way," Puri told reporters on the sidelines of an industry event.

India will look at building smaller oil refineries because of problems in acquiring land as it aims to raise its annual refining capacity to 9 million barrels per day (bpd), oil minister Hardeep Singh Puri said on Tuesday.

Oil refining capacity in India, the world's third biggest oil importer and consumer, is at about 5.2 million bpd.

Global oil producers see India as a stable outlet for their oil as it is expected to account for a quarter of global oil demand growth by 2040.

"Refineries are high cost. We are looking at a large number of 20

million tonnes per annum, smaller ones, because if I make it too big than land acquisition and other issues come in the way," Puri told reporters on the sidelines of an industry event.

He said Indian needed to draw a roadmap for expanding its refining capacity to 9 million bpd.

Problems with land purchases are one of the key reasons for sluggish infrastructure development in Asia's third-largest economy.

Reuters last year reported that Indian was considering building several refineries instead of a single 1.2 million bpd plant being planned with Saudi Aramco and Abu Dhabi National Oil Company (ADNOC), due to challenges in acquiring a 15,000-acre parcel of land for it.

Delays in acquiring the land have almost stalled the project,

initially planned for 2025, and boosted costs by 36% to \$60 billion, according to 2019 estimates.

The government did not respond to requests for comment last year on the possibility of splitting up the planned giant refinery.

Puri said new refiners would also make petrochemicals and green hydrogen among other products.

Prime Minister Narendra Modi has set a 2070 net zero goal and is helping companies to build green projects through various incentives.

India wants to develop a green hydrogen capacity of own 5 million tonnes a year by 2030, besides expanding its renewable energy capacity.

"India will become an energy hub but it is an energy hub that is going in green direction," Puri said.



From Page 8- Human Beings....

The climate of disciplined living, love and reference that prevails in the family influences and directs the child's behavior. The foundation of child's life-education is laid by the mother who is the primary and immediate asset of a family. To enrich the quality of home environment, it is to ensure that every member of the family possesses right conduct, reciprocity of love and respect, attitude of service and sympathy, neighboring relation, entertaining guests, love and respect for relatives, helping the destitute, collection of glorious heritage of ancestors & family lineage, reading of religious scriptures, offering of prayer etc. Hence, Sri Sri Thakur said, Family is the primordial institution whose impact is invincible. Education in schools, howsoever organized & systematic, has its own inherent restraints and limitation. Early education of the child at home sets the tone and texture of an ideal education for the child.

After all, the family is the most basic centre of child's learning. Mother is the first teacher of a child. Her personality has the magic touch of alladin's lamp. No one has the second role of a mother and can never replace her as the first teacher. So it can be unhesitatingly said that mother is the master architect of a child's life and growth in the family.

Devotion to parents and superiors combined with adherence to the Ideal is the secret of success in life. Ignore the source, deprive the resources. As the wife should have profound regards for her husband so also she should have untottering devotion to her father-in-law and mother-in-law etc. who are in fact the

source of her husband. If both the husband and wife are regardful to superiors, their children imbibe their character automatically and are born with an instinct of loving and obeying their superiors. A sense of pride about fore-fathers and family culture considerably helps man in building his character. Devotion to the glorious distinctive family traits does not allow man to become unworthy.

Dharma, Ideal and Culture should constitute the first and foremost facts in the formation of family life and it is only this that can serve to expand man's life towards infinite becoming.

Everyone's family is the centre of informal education for him. To gain admission into this institution, you don't need to pay any kind of admission fee. It is destined by nature and by birth. You should therefore make certain to avail of whatever your family offers you in terms of informal education.

It is the bounden duty of parents to make children familiar with the conscious about the existential trend and glory of the family. Sri Sri Thakur says,

"Do never conceal thy tradition, clan, creed and cult to make the self blessed on foolishly adopting those other, because that would create a catastrophe in society hurling down the trail of social dignity; mind that every specific trait is distinct in its nature."

But the greatest thing in the family life is Ideal-centric mutual service, assistance, cooperation, sympathy and mutual responsible move.

Social Life:

Sri Sri Thakur Anukulchandra believed that the creation of this social structure and its functioning, can be facilitated through the use of money. However, the later must, in no case, be allowed to determine the

basic orientation of the structure or its priorities. The enlightened self-interest of man has to be kept in the centre of this structure because, as Sri Sri Thakur noted, ultimately, "People are your own" – While money belongs to the "others" category. The social fabric must, therefore, be built around the interest of man, money playing only a facilitating role.

Society is the inter interested body of people, who are held together by Ideal centric love and mutual active service. (A.P.9 Vol.)

Human society is in a constant flux. At every turn of time, new problems come up disturbing the apparent social balance and harmony. Such problems emerge mostly from human efforts for growth and development and ironically they, again, work as deterrents to further growth. On the otherwise of the globe, the picture is more black and dreadful. Craze for commercialism is sky-high and immediate sensual pleasure dictates all individual activities. The bond of family life is lost and the sanctity of marriage is challenged. Frustration reigns Supreme, creating conditions of self destruction. Youth take to drugs and resort to suicide in increasing number. The entire fabric of the society is mutilated. On the other hand science has also given man an unlimited power of destruction. The major crisis of our society today is the absence of a clearly defined direction in the life of individual. Endless drifting has made man frustrated both in personal and national life.

For the better social life we should observe the factors, life with superior beloved, life in solution, life with immediate environment i.e. with family and life for and with the public. Only a life lived for others is a life worthwhile.

We should understand and obtain benefit for the soul which is attainable through this human birth. Great life can be obtained only by Grace which can be obtained only by leading of life of compassion towards all living beings – not even a little of it can be obtained by any other means. Grace can be obtained only by being compassionate to other living beings.

National Life:

Sri Sri Thakur had given more importance to Inter-dependence rather than independence. In his Message He says

"Entertainment of every one with due courteous greeting, sympathetic service and immediate inquisitive, agile approach, cordial attitude even when chiding appealing posture, loving disposition – These will keep your personality in tact and will make it progressive. – The Message Vol.VI.

Science is the system of behavior by which man acquires mastery of his environment. Sri Sri Thakur says,

"Love man, serve man with every conscientious compassion, earn everyone with indomitable luster of service, thus make the wealth of life progressive – providence provides everyone with every unobstructed flow; be great in heart with every regardful service, be appeased and make other peaceful". – The Message Vol.V

Mankind is a tribe of animals, living by habits and thinking in symbols. Man has lost sight of his innate and intrinsic greatness. After all, clay can not go beyond that because it has its limitation. The human body is made of panchatattva or five elements i.e. Fire, Wind, Water, Clay & Sky and clay is one of them. Why do we have fight for our respective countries, states, territories and faiths? Look at the world from

outer space. Earth is just one among many planets in space that is home to several galaxies each with their own star systems. Yet, we obsess over small geographical areas. Go beyond all ideological restrictions and conditions and call the whole world your extended family. Until we do that, we will continue to wallow in nationalism and parochialism.

Our present weakness comes from our unappreciation of individuality and from our ignorance of the constitution of the human being. Jesus Christ said- "God has created man after his own image".

Dharma means the laws that swain life and growth with every effulgence of personality both individually and collectively. Prime object of politics is to protect, nurture and fulfill the existence of all.

If there is righteousness in the heart there will be beauty in character, if there is beauty in character there will be harmony in home, if there is harmony in home there will be order in the nation and if there is order in the nation there will be peace in the world.

The quality of your life depends on how well you manage your body, your mind, your emotion, your situations, your home, your communities, nations, your life in general and the world.

Thousands of messages have been given by Him to solve the innumerable problems facing the individual, the family, the society, the nation and of the world as a whole. These messages are priceless gems and provide panacea for all the problems of life. He emphasized the idea that man can never attain peace and prosperity by relinquishing Dharma, Ideal and Culture.

“OAS Probationers take Oath for Citizen Centric Good Governance in the Dikshyant Samaroha”

Today, i.e., 26th May 2023, the 'Dikshyant Samaroha' of the Induction Training of 31 OAS probationers, comprising of 13 Women and 18 men, was organized by Gopabandhu Academy of Administration (GAA) at Swosti Premium Plaza, Bhubaneswar. Shri. Raj Kumar Sharma, IAS, Director General of the Academy presided over the ceremony. Shri Pradeep Kumar Jena, IAS, Chief Secretary of Odisha was the Chief Guest. Shri Satyabrata Sahu, IAS, Additional Chief Secretary, Revenue and Disaster Management, and Forest and Environment Departments and Shri Sushil Kumar Lohani, IAS, Principal Secretary, Panchyati Raj, Excise and SSEPD graced the occasion as the Guests of Honor.

In his presidential address, Shri Raj Kumar Sharma, IAS reiterated the core philosophy and principles of training. He enlightened on how there has been paradigm shift in the content of civil services as well as composition of civil service officers. Today, the officers need to be agile and must have the

responsibility in administration. He advised them to choose the path of honesty and integrity all through their career. Good behaviour, politeness, right attitude and aptitude would enable them resolving any issue in the field. Despite multiple constraints, one officer has to work for the well-being of the citizens by honoring to their ever growing aspirations and expectations. He said that the officers would be under the radar of 5T. Their performance would be monitored on how effectively the public services are delivered for the good governance at each level. He mentioned that Odisha has been experiencing many positive changes, especially during the last two years. Government of Odisha has been putting “Zero Tolerance” to corruption. While wishing 'good luck and all the best' to the probationers, he also mentioned that each positive thing done

singing, painting, dancing, gardening, etc.

Shri Sushil Kumar Lohani, IAS, mentioned that OAS officers are the backbone of the administration of Government of Odisha. He advised that officers must be accessible, empathetic and concerned to the need of people. They must be polite with people. He suggested the officers to be techno-savvy. They need to highlight the activities of concerned department and schemes of the Government in social media. He expressed his happiness that most of the OAS probationers are

of Excellence.

For the first time, with the initiatives of the Director General, GAA, a mentor-ship programme was instituted as a part of the induction training of OAS probationers. Each probationer was attached to a

conducted such an interesting and educative training programme.

For the first time, GAA had asked the probationer's choice of Best Guest Faculty and Shri Saroj Kumar Sahoo, OAS, Additional Secretary to Government, Revenue Department was felicitated by the Director General, GAA for the same. Shri Sahoo's command over the subject and mode of teaching was appreciated by one and all.



know how to deliver the best within a short time, with the interventions of technology like Artificial Intelligence. He advised the young officers to cultivate the habit of reading and strategic thinking. He advised the officers to take optimum advantage from the recently institutionalized mentor-ship program wherein out-standing senior officers of the state are associated. He advised the probationers to remember Gandhi's Talisman whenever they are in dilemma to take a decision in their public life.

The Chief Secretary, Odisha thanked the Director General, Gopabandhu Academy for having initiated many things for the first time in the Academy to enhance the quality of teaching and learning experiences. While addressing the OAS probationers he mentioned that the officers would soon be assigned with positions and powers. He reminded that power comes with

would get registered in God's account's book. Each good work leads to peace of mind.

Shri Satyabrata Sahu, IAS mentioned that BDOs and Tehsildars are the left and right hands of administration in the field. Revenue Department was covered under the first phase of 5T initiatives in 2019. Now a mutation case is completed within 21 days where as it was taking 93 days earlier. Now, all revenue services are time-bound. Revenue Department provides about 60,00,000 services each year. Even 1% of complain counts to 60,000 which is obviously very large. Hence, officers cannot afford not to work on time with transparency. The young officers are the images of the government in the field. The expectations of people have increased, so stress is likely to be mounted on them. Officers must have work-life balance. So, they must continue to pursue their habits like reading, writing,

discharge their duties efficiently, and (iv) to dedicate themselves to

selfless teamwork for serving the people of India and Odisha. Shri. Raj Kumar Sharma, IAS, Director General, GAA advised them to frame this signed oath and keep it at their easy access for regular reference through out their career.

At the beginning, a power point presentation on the structure and highlights of the induction training programme was presented by the Director, Centre

mentor who happens to be a senior bureaucrat in the state. Both mentor and mentee interacted with each other not only to clear the mentee's doubts on public administration, but also to get enriched with the experience and expertise of the mentor in resolving the critical real-life dilemma.

The OAS probationers took oath (i) to bear true allegiance to the constitution of India and laws of the land; (ii) to discharge their duties with utmost honesty, integrity and impartiality and with out fear or favour, (iii) to acquire and upgrade their knowledge and skills to

The Chief Guest and the Guest of Honor felicitated the mentors, namely, Shri Dillip Routrai, IAS, Shri Gangadhar Sahoo, IAS, Shri Manoj Kumar Pattnaik, IAS, Shri Uday Narayan Das, IAS.

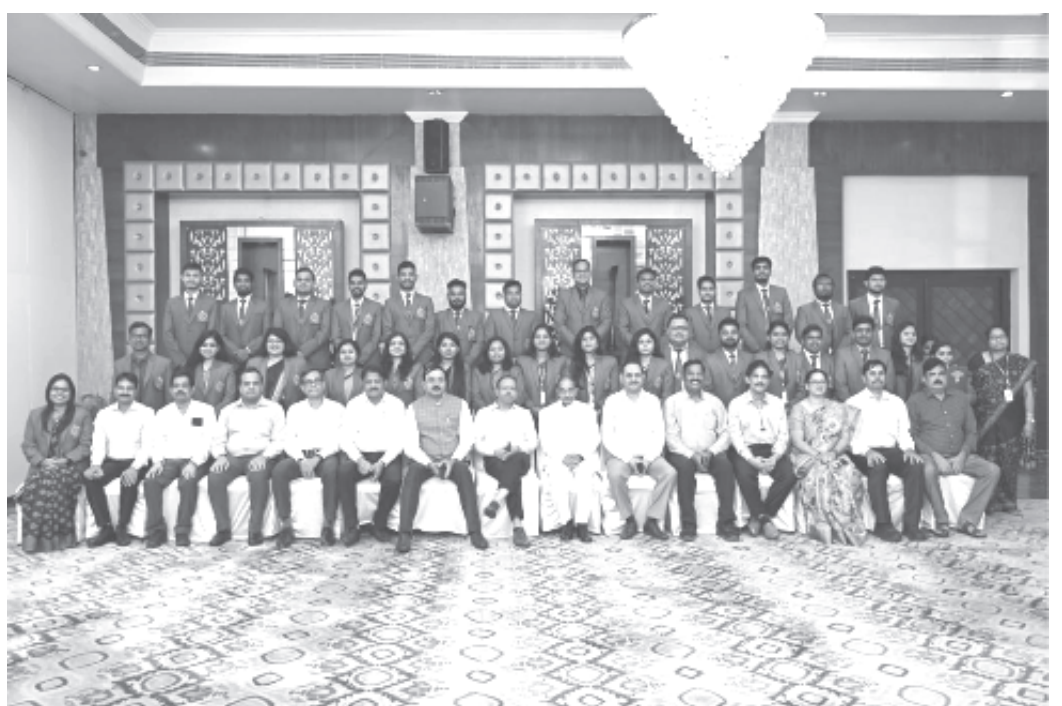
The probationers were distributed with their training completion certificates. Shri K. Venketeswar Reddy bagged the best probationers trophy. Shri Titas Mahandia and Ms Diptimayee Patra jointly stood in second position. Ms.

The Director General, GAA presented mementos to the Chief Guest and Guests of Honor.

On this occasion the newsletter, namely, 'Academy News-2023 Vol. (1)', published by the CoE in GAA, was released by the Chief Secretary, Odisha. The newsletter contains various innovative initiatives undertaken in recent months by the apex training institute of Odisha.

Shri. Manish Agarwal, IAS, Additional Director General coordinated the 'Dikshyant Samaroha' for its smooth conduct.

The Course Director of the induction training programme Dr. Himanshu Bhusan Panda, IOFS, Additional Commissioner, GAA had given the welcome address. Dr. Mamatarani Naik, Joint Director, GAA, the Associate Course Director of the



Diptemayee Patra, while sharing her experience of the induction training programme, had expressed her heart-felt thanks for GAA to have

induction training programme, anchored the programme and gave the formal vote thanks to all participants present over the 'Dikshyant Samaroha'.

Odisha has emerged as a major Sports Hub in India

- Odisha is the Global hub for Hockey with World's best hockey stadiums and host for consecutive Men's World Cup
- Only State which is making significant investment in Sports Infrastructure.
- More than 2500 Crores worth Projects across the State including India's First Indoor Athletics Stadium.
- The State with the highest budget for Sports - FY 2023-24 Rs. 1217 crores
- Unique partnership with Corporates to establish the High Performance Centres in various sports.



Chief Minister Naveen Patnaik reviewed the progress on the Manifesto commitments and achievements of the Sports & Youth Services Department over the last four years. Sports & Youth Services Minister Tusharkanti Behera presented a detailed development report and other transformative initiatives undertaken by the Department for achieving the targets.

Sports & youth Services Minister apprised Chief Minister that Odisha has rapidly emerged as a favoured destination for sports owing to its exceptional infrastructure, facilities and successful organization of numerous global sporting competitions. Under the visionary leadership of Chief Minister Naveen Patnaik the state is actively promoting and nurturing a wide range of sports, propelling its journey as a flourishing sports hub.

The state has established itself as a global hub of hockey, having

successfully organized consecutive editions of the FIH Hockey World Cup in 2018 and 2023. Furthermore, Odisha has been the venue for prominent hockey events like the FIH Hockey Junior Men's World Cup, Pro League, FIH Olympic Qualifiers, and FIH Series Finals, solidifying its position as a global destination for hockey. Kalinga Hockey Stadium and Birsa Munda Hockey Stadium are the top hockey stadiums in the world.

Odisha has also made remarkable strides in hosting noteworthy international events

in other sports. In football, the state successfully organized the FIFA U17 Women's World Cup and the SAFF U20 Championship, providing talented young footballers from around the world with a platform to showcase their skills. Odisha Open, Commonwealth Table Tennis Championships and a plethora of national events across sports have redefined Odisha as a Sports Hub in India. Kalinga Stadium in Bhubaneswar, the state's capital, serves as the home ground for Odisha FC, the reigning Super Cup Champions. Odisha Juggernauts the state's

franchise in the Ultimate Kho Kho League.

It has set a precedent by launching High Performance Centers in various sports disciplines with corporates and eminent sportspersons, in a unique partnership model that has been lauded widely. It not only extended its support to Hockey India by another ten years it is also supporting National Federations in Football, Rugby, Kho Kho and Swimming.

One of the hallmarks of Odisha's sporting landscape is its exceptional sports infrastructure.

The Birsa Munda Hockey Stadium, Rourkela, the world's largest seated hockey stadium, has earned a prestigious place in the Guinness Book of World Records. The facility, which also houses an Olympic-style Hockey Village with 225 rooms, was built in just 15 months. This stadium stands as a symbol of Odisha's unwavering dedication to the sport of hockey, offering state-of-the-art facilities and an impressive grandeur. In addition, Odisha houses other sporting venues such as the Birsa Munda Athletics

Stadium in Rourkela, the Kalinga Stadium Tennis Center, Dharanidhar Sports Complex in Keonjhar amongst others, providing athletes with top-tier facilities to train and excel in their respective disciplines.

Recognizing the significance of grassroots development, the Odisha government has taken proactive measures to nurture young talent and establish a strong foundation for sports in the region. As part of this initiative, 17 astro-turf hockey fields have been set up across the Sundargarh district, known as the cradle of hockey in Odisha. This strategic move aims to identify and nurture promising talent, ensuring the sustained growth and success of the sport. Moreover, the state is establishing 90 multipurpose indoor stadiums in urban areas. Six FIFA standard pitches have also been developed.

Over the last four years the sports budget has raised to Rs 1217 Cr reflecting the commitment of Odisha and its Chief Minister towards sports development and promotion.

Throwing light on the sports development in the state, Sports & Youth Services Minister Tusharkanti Behera shared, "Odisha has come a long way in sports and is fully committed to fostering a vibrant sports culture. With the support and guidance of Hon'ble Chief Minister and through unique initiatives, Odisha aims to encourage talent, inspire future generations, and position itself as a leading sports destination in India."

