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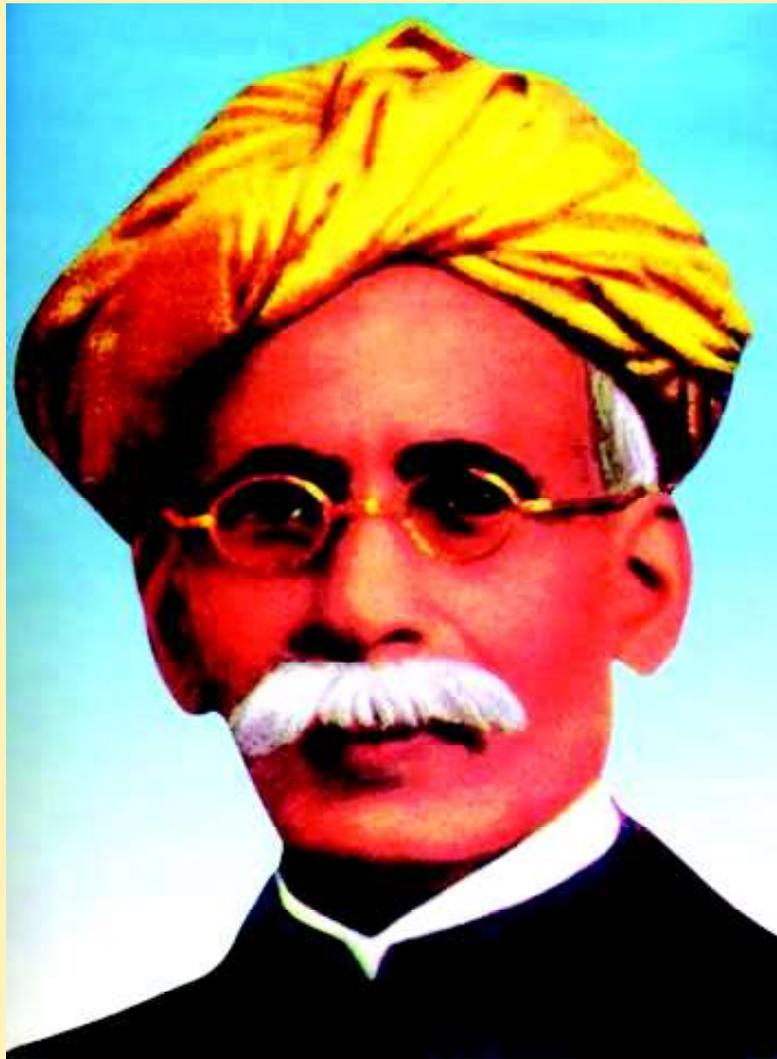
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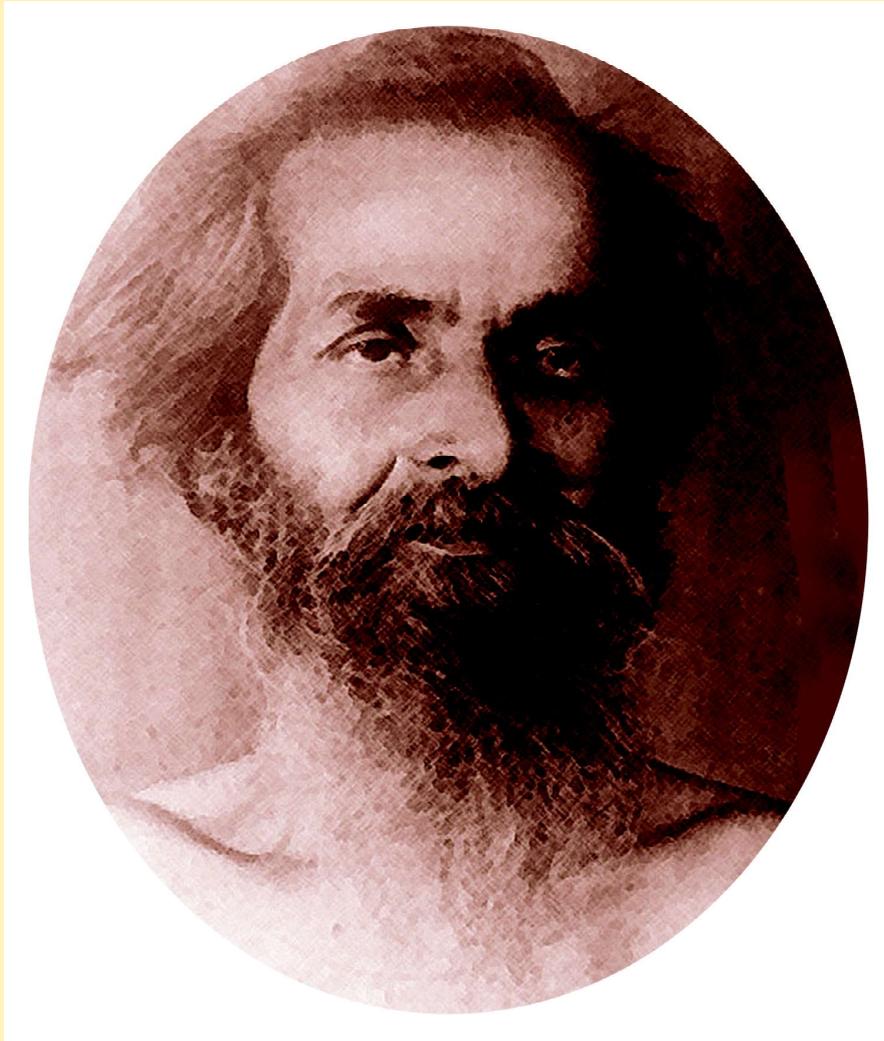
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Our Sincere Obeisance



Utkal Gourav Madhusudan

We Fondly Remember



Acharya Harihar

Our Sincere Obeisance



Laxman Naik

*Remembering the Stalwart
with utmost respect*



Legendary leader and visionary Biju Patnaik

Editor's Note



**Indian Wing Commander
Abhinandan Barttaman**

Along with the countrymen, we, the people of Odisha,
are also proud of you.

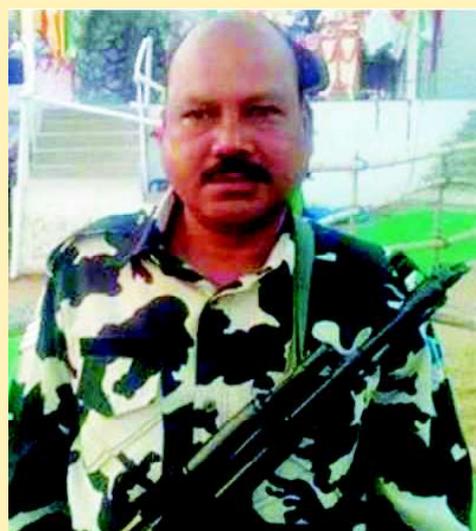
Kesari Babu

Editor, Odisha Review

We feel proud ...



Saheed Manoj Kumar Behera



Saheed Prasanna Kumar Sahoo

The Strength in the Scars - A Woman's Worth

*Subhrata Pattnaik
Dr. Lenin Mohanty*

A woman is a miracle, she is wise, and she is smart. She has netted her peacefulness, not having had it bequeathed on her but having passed her trials. She has suffered and turned out to be more beautiful. She has the capability to embrace her world together and live with it. She knows her vision. She cares profoundly about achieving something bigger for herself. She rules with genuine power. Sometimes it just takes a little reminder that helps us to understand the inconceivable potential that lies within us. As a woman, we know the necessary essentials of life; we have the power to create life. Without us, the circle would be far from closed. Apart from that, we empower ourselves to be confident in becoming the strong woman we want to be. We are able to transmute and to modify, which allows us to leave all disapproval behind so we shouldn't allow others to decide for us, but instead we should seize the supremacy that lies within us. A sturdy, independent woman has the pluck to be the best version of herself. Yes, it takes valor and spirit, but it is worthwhile. Until you start trying to become the best you can be, you never really know the true potential that is within you. But if you have the audacity to embrace your potential you will be able to make a significant impact on the advancement of this planet. "Who's going to stop you". It will move your mindset from being someone who asks for consent to someone who decides for herself. With this approach, you will take the authority over your life which is important. Furthermore, it will permit you to avoid the discouraging target temperament entirely. Living life with the pluck of celebrating everything that comes your way will help you to not only reduce tension but also to bring more delight, contentment, and passion into your life. The main here is to live in the moment without letting thoughts about the past and future to bring you down.

As a woman of celebration, you should never keep toxic people around you for long. You must cut them out, because you know you are strong enough to endure without them. You don't need their pessimism weighing you down. Being a liberated woman means you are comfortable doing things on your own. You don't need someone to pamper you, impart you, guard you and defend you. You can shelter yourself. You are a woman who works with dignity. You make money. You follow your passions. You don't care what anyone else has to say about you, because you are pleased with yourself for hurtling after your barest dreams. You are a woman who is comfortable within the walls of your skin. You love yourself and love your body, because it does so much for you. Your independence doesn't depend on anything else but on your strength, on your liveliness, on your dynamism, and on how much you accomplish in a day. You should consider yourself paramount. You shouldn't be afraid of picking up the self-seeking option. You should never sacrifice your dreams, your pleasure, or your sanity in order to stay in an association.

A part of growing up as a woman is learning who you are and accepting yourself. It's not only growing, but discovering who you really are. It's trial and error, its loss and gain; it's achieving something you thought you always wanted. The fact is that the more you crack, the better you get,

and the more you achieve, the more confident you become. You have a decision to make. You don't decide whether or not you're going to let go, because the things that aren't meant for us will anyway slip away eventually. What you do decide is whether or not you're going to take that step when you realize you should, or holding onto something you don't want because you're too fearful of the alternative.

People will keep teaching you all the time on how to persist, develop resilience, and to refuse to give up, no matter what. What they won't teach you is that, couple of times, you have to learn how to fail with grace. You have to understand that sometimes, we step back from certain things not because they're completely wrong, but because something's are destined to happen. So if you have reached that place in your life, one in which you identify that the pathway you are on is not worthwhile, the dreams you have were built for a person you used to be, and that you're being held in place not by a desire to blossom but out of fear of failure, then you should gather enough courage to allow your dreams to change. You know that you are not minimizing yourself when you choose to give up on the things that are incorrect for you. You honor yourself, you prioritize what you want and it's fine. You learn to care more about what's going to make you feel good and confident than what other people would perceive to be right. All of this is a part of becoming you. And then at a point, sooner or later, you will certainly realize the significance of the decision made. The world teaches you to have dreams, to believe in them, to stand by them, to fight for them no matter what. It seldom tells you that, over time, some dreams will conceal others, some will get swapped, and others will fall into the respites of your mind.

You'll realize that some aren't realistic, and you won't have the fight in you to keep going after.

The truth is that just as important as it is to endure, it is likewise as decisive to know when to let go, to give up, to set one thing down so you can pick up another. If your dreams have not ever changed, it means you haven't grown. Or worse, it means that you haven't yet had the courage to let go, and start up from the scratch again. You owe nothing to the person you used to be. You owe everything to the person you are now.



Subhrata Pattnaik

The Odisha Assembly has unanimously passed a resolution pursuing 33% reservation for women in legislative assemblies and the Parliament. Bringing more women into politics has a lot of positive upshots. WOMEN are primed with substances. For them it is a self-fulfilling vision and that substantially will make it easier for other women to enter politics. This

leads to a broader exposure. We need to break the vindictive cycle. Without empowering 50% of our population, we can never become a power bloc.

I think the Government's initiative to involve women in politics is a respectable idea. Also, 33 % is good, to start with. In a country with 48% women, which is almost half of the total population, 33% representation is appreciable. There are many women who are interested in politics are unable to do so due to societal burden and their "responsibility" towards their families. Also, people look up to such personalities who break the norms. A woman in authority is the vilest nightmare to a conservative patriarchal person. I hope the reservation gives these women the required push, and the ones interested be carefully nominated and voted, and given seats.

At one point or the other you are going to come across noxious strangers who make it their assignment to discourage you and to purposely smash you so that you'll give up on your dreams. They are going to leave uncouth comments. They are going to junk your work be it professional or personal with the meanest invectives. Never give into their pessimism. Never pay too much attention to anyone who is out to smash your dreams. Instead prove them you have what it takes to make a name for yourself.

None can ignore any remark that isn't a compliment. Sometimes, condemnation isn't meant to be mean. Sometimes, denunciation is constructive. Sometimes, criticism is helpful. If you listen to the opinions of others, you might not like what you hear at first, but in the end you might grow as a performer. You might reinforce your skills. It's totally up to you to adopt which thoughts are worth heeding to and which ones should be ignored. Do not be too tough on yourself. It will be hard to ignore the unpleasant comments they have about your career, but you cannot let their disapproval get to you. You cannot care too much about what they have to say. You cannot crouch to their level either. You don't have to fight negativity with more negativity. You don't have to defend yourself. Even though it's human nature to care about what other people think, especially when it comes to your profession, you cannot put too much weight on what others think. You can only care about your own opinion. At the end of the day, the amount of people who enjoy your work does not matter as long as you are obsessive about what you are creating, as long as you are happy with your fallouts, as long as you are doing what you love to do. You don't have to sway anyone except yourself.



Smita Lenka

I'm a social activist. I take pride in being an active representative of woman's worth and also I take pride in my womanhood. Womanhood means the act of being a woman. I am a woman and it takes so much to be so ! Like I am particular about all that I need and groom myself well, I also keep the needs and rights of all the women in the society. And I make sure that their fundamental as well as personal rights are executed well. Also, that they should have their space in today's male dominant society. By doing this for all the women out there, I feel empowered myself. Women empowerment comes from self awakening. When we as individuals take initiative of establishing our value in the society, people join us in numbers and this is where ideas multiply, awareness spreads and the success comes there after.

Today I am happy, strong, successful and most importantly self satisfied. A woman is not just any normal being, she is a person with a womb, she has been named accordingly. A mother, a wife, a daughter, a daughter in law and a sister. Being all of these at a time and selflessly taking care of everyone's need without fail is how sensible, loving and compassionate I feel about myself.

Sometimes it feels like you're the only woman in the world who flashes along the line of self-reliant and dependent, tender and tough, capable and yet still longing to be loved. There's nothing wrong with you. There's nothing wrong with being the type of woman who is easy in her own skin, able to live her life her own way, flawlessly acceptable making her own decisions, and yet, entirely and utterly interested in finding a man to stand by her side. And also there's nothing wrong with being the type of woman who's just fine being single, who doesn't need a significant other to complete her, who doesn't feel mislaid or meaningless outside of a relationship.

Every woman is strong. Every person is strong. But when we classify or tag certain women as 'strong women,' oftentimes it is because they are audacious, because they have great dispositions,

because they are not muzzled or undersized by the world. So for the sake of understanding a ‘strong woman’, “ a strong woman is the one who is opinionated and compelling, a woman who doesn’t allow herself to be paced on or marched over by the people around her”.

A strong woman is not too great, too blunt, and too proficient, she is not too dogmatic, too aggressive, or too self-reliant to stand beside a man as an equal. She never undermines a man. Provided that a truly strong man should not be intimidated by a strong woman rather he should be inspired. A strong man, just like a strong woman, is aware of who he is. He is aware of his mannishness, his asset, his opinions, his philosophies, his flaws. He will not feel lessened by a woman who knows how to love herself and pursue the things she needs. He will not feel overturned by a strong woman’s desire to keep her independence or her voice. A woman’s asset does not equal a man’s flaw. We are strong when we shape one another up, when we inspire each other to be stout, when we stand beside our counterparts and are empowered, rather than vulnerable. When we acknowledge that we are diverse, yet equals. When we understand we are all tough in our own ways, and deserve someone who beliefs this in us.

I think of all the different varieties of women that I’ve come across in my early adulthood who have made an impression, they are all commendable, unique in their own way.

Many of them have different standpoints on their womanhood, and have different attitudes and ideologies on how to go about living a healthy, happy, and a satisfied life. Here I present some of the unique and beautiful personalities I have come across lately who are confident, bold, and independent. Their definition of womanhood is nothing but inspiring and the understanding they have of their worth is what people should learn and execute accordingly in their own wonderful way.

What exactly does it mean to be a woman? Being a woman is more than biology, and maybe it even goes beyond judgmentally looking at gender as a social concept. Of course, there are superfluities of women (and men), and that’s fine, they’re entitled and empowered at the same time. But in my assembly of reality, I choose to hold on to womanhood as sometimes parallel and sometimes poles apart from manhood. But with so many different depictions of womanhood, who gets to decide what establishes



Smita Dash

Every woman has feminine qualities that define who they are, my side gets expressed where I am working towards which includes my goals, getting things done and pushing forward. I am enjoying being the woman I am becoming. Especially I enjoy challenging the notion that I can be put in a box. I am a student and am a Judicial Service Aspirant and am into journalism as well. And I take immense pride in that but then I can’t deny the fact that am pursuing my life as a struggler as I seek to serve my community the best way I can. I am 24 and I know that I have a long way to go. I am sarcastic and sweet as well as confident and humble in my own way. Considering the girl side of me I always want to know and get bothered if my court room attire goes well with my fancy dresses ! And then as a woman I want to be married and have children but by my choice not in pressure. Because I don’t think that marrying a man will make me a more special kind of a woman or better than any other woman. It’s just my womanhood and I love it. I mean how wrong it is for a woman to expect a man to build the world she wants, rather than creating for herself !”

To me, being a woman in the first place is being a human and recognising the complexity that comes with all of that. Being a woman means being strong because it is only by being strong and confident you’ll be able to recognise your womanhood. For getting success in life a woman should not be afraid to take big steps ,but she should go beyond that fear and terror in order to prove herself right and to define her womanhood, and not allow somebody else to define it for her.

womanhood and what it means to be a woman? *In a male dominant profession where it takes immense courage to establish oneself Gargy Nayak, a fitness freak and a nutrition coach says that she takes pride in celebrating her womanhood as she is strong and independent. Moreover, it takes a lot for a woman to pursue such a passion and follow it. What can be better than converting it as a career option. Above all what matters is, one should be satisfied and happy. She further says, "I have followed my passion and I have made my family and friends proud."*

I think one of the luckless traits of human nature is that we feel a need to classify people and this is evident in how we classify women. We limit them and we say that she is, "that kind of woman," and that kind of woman is categorized as one who is traditional or modern or a feminist or not a feminist or liberal or conservative. And the count of adjectives goes on..! It is very important for a woman to first identify the complications that comes her way. It becomes necessary for a woman to acknowledge some of the weaknesses that she has ascribed from birth and the uphill battle she faces in this partially perfect world. But at the same time it's also distinguishing the strengths that come with womanhood – the strength of her heart, her mind, and her body, which differ from woman to woman, and even differ culturally. When you're a woman, you take responsibility for your life and for what you want from

that particular life. You might be conscious, but you go beyond that fearfulness to prove your womanhood, because you won't appreciate if it is done by others. *To Smita Dash (A judicial service aspirant), being a woman in the first place is being a human and recognising the complexity that comes with all of that. She further says, that being a woman means being strong because it is only by being strong and confident you'll be able to recognise your womanhood. For getting success in life a woman should not be afraid to take big steps ,but she should go beyond that fear and terror in order to prove herself right and to define her womanhood."*

I relish being a woman, and I love being the woman I am. I especially take delight in challenging the notion that I can be caged. I am jaunty, am agile, am vivacious and simultaneously am self-assured, poised, confident and assertive most times but shy, fearful, reluctant and awkward at other times. I am



Sharada Bharaty

Even a broken crayon can continue to draw a masterpiece. I'd like to believe my life is like that crayon, continually enjoying the journey of creating without obsessing over a 'goal'. A goal, in many ways, is an end to an endeavour, whereas life is all about perpetual growth. The vulnerability of being a single woman remains a challenge in

our society. We struggle against this challenge as long as we resist it, it either mends you or breaks you. I enjoy my life by doing these little things for others. It gives me immense satisfaction. I cannot stop myself from helping others. I consider it to be my duty and my responsibility. Whatever I have done in my life I have created and earned it myself. For me struggle is a part of me. Struggle has always been there with me. So I can't deny struggle because it is with struggle I made my identity and I am recognized. I would say to all the ladies out there not to consider or tag a particular situation in your life as "struggle". Don't let negativity come your way. However, it all gets better once we accept the situations life presents us with. I took every challenge in my life as an opportunity to push my limits a little farther each time. I am extremely happy with the work I do, because my work speaks about "My Worth and My Womanhood. Womanhood gives me my happy space. With it I have achieved colossal.

following life as an academic, an activist, as a writer, and I take pride in whatever I am doing in life. Because I find pleasure and satisfaction in this. And at the same time I also want to maintain my identities as a child of God, a daughter, a sister, a wife, a mother and a good friend. But I don't think that any of these aspects will make me a more superior and an enhanced kind of a woman. *The definition of womanhood is aptly explained by Smita Dash (Student) in her own way, "I want to be married and have children but by my choice not in pressure. Because I don't think that marrying a man will make me a more special kind of a woman or better than any other woman. It's just my womanhood and I love it. I mean how wrong it is for a woman to expect a man to build the world she wants, rather than creating for herself!"*. There's nothing wrong with being self-determining and liberated, unconventional and strong-willed, indomitable and self-sufficient, and yet still love to love. You are someone who feels confident and satisfied of who she is and wants to guard that liberation, yet still wants to find someone to share her life with. You are someone who treasures the parts of herself that have grown in her singleness, yet hopes to be in a relationship with someone who allows her to blossom both together and separate. You stand humble, by simultaneously making your own selections, living your own life, yet enjoying being connected to another person. You become your better version when you are a little of both—self-loving and outward-loving. And there is undeniably nothing wrong with that.

So own who you are, how you love, what you feel and the way you feel. You live in a constant state of battle. You long to be independent and authoritative. You want to live out your self-focused, self-driven existence. You don't want to appear to be too selfish or self-centered, but you don't want to look feeble or dependent either—it's hard to be a strong, independent woman. But let this be a reminder that you are not the only woman who has this pressure. You are not the only one who shifts back and forth, unsure of where she fits.

So own the parts of you dearly be it positive or negative. Own the parts of you that you don't love because anyhow they are yours. Own the decisions you took because they were made by you and you had your own niche. Never regret about anything done before. Accept the kind of woman you were and move on with it. Life will be easy, you will be easy. Own the woman you are because there is nothing wrong with her; she is a perfect amalgam.



Gargy Nayak

While finding out my passion, something which I can do and perform everyday with love. Three things that came to my mind- dance, music and fitness. Which I am into childhood and ZUMBA fitness is the perfect blend of all 3. I am certified in 6 different forms of ZUMBA fitness. While continuing my fitness journey I finished my certification in sports science and nutrition. I am a fitness and nutrition coach and provide online lifestyle correction programs.

Independence comes with a lots of responsibility and success comes with a lot of hard work, dedication and discipline towards your work. A well balanced lifestyle being independent and successful, is a feeling of soul satisfaction. For me success is the moment when you feel proud about your own self.

I am celebrating WOMANHOOD with a lot of pride because am a strong independent individual who has followed her passion with a lot of guts and for which I make my friends and family very proud.

“You are the only person who gets to decide if you are happy or not—do not put your bliss into the hands of other people. Do not make it liable on their acceptance of you or their approaches for you. At the end of the day, it doesn’t matter if someone dislikes you or if someone doesn’t want to be with you. All that matters is that you are contented with the person you are becoming. All that matters is that you love yourself and you understand your worth, you are gratified of what you are putting out into the world. You are in charge of your ecstasy, of your value, of your worth. So just be your own validation.”

Regardless of what profession you’re into, what have you accomplished at the end of the day a woman’s worth is still judged by youth and beauty. Is it a precise exploration? No. But the big wheel of social perception moves slowly. It is true and cannot be denied that for centuries, a woman’s youth and beauty were the determining factor of her worth. When we let things to be too easy on ourselves and with ourselves we forget our truth. We indulge in scrutinizing ourselves which we are not supposed to and then we buy into this historical analysis while standing determinedly planted in the present. This is how we limit ourselves. Yet, there are those of us who decline to be confined. A woman’s worth is the entirety of who she is. We are more than our bodies. We are more than our phase or beauty. A rightly empowered woman knows how to love herself and love another, absolutely. Her heart has no limits. Her varieties have no limits. A woman’s worth is measured by a life fully lived and adored. The nerve to be her own person and create her own image of life is commendable. *Smita Lenka (Social Activist) firmly believes this. She says, “I’m a social activist. I take pride in being an active representative of woman’s worth and also I take pride in my womanhood. Womanhood means the act of being a woman. I am a woman and it takes so much to be so!”* In every individual’s life there is evolution; the evolution of new morals, new ideologies and countless options. An innovative life is one that walks against the crowd. The rules of society are wrecked— not in insolence, but in the need to create new replicas that allow for better expansion and growth. Women have started seeing themselves as effective, worthy, and benevolent, for which they are getting to enjoy a greater participation the world offers.

“I am learning that the same sense of inner worth and peace that leads me to implementing radical easiness also empowers me to ask for what I deserve in return for my work. Being grateful and appreciative leads me to make sensible decisions. I love being a woman because I feel we are called to be so powerful. We’re working, we’re at home, we’re raising kids, we’re helping our partners, we’re helping others, and we’re doing things in the community. We can do so much; we’re capable of so much. And when you gang us up together we’re even more powerful.

“Conciliation and negotiation” are those words I believe when are put up in a conversation, it leads to settlement. A settlement that begins within and compromise that you do to yourself. If we hope to resolve differences with those whose goals seem to be at variance to our own, we must first make peace with ourselves. What is a woman’s worth? Far more than we’ve ever imagined.” We were present at the start of things; and if people would only let us, we would impart the marvelous teachings we learned from the experience. We will light up like lamps, and the world will never be the same again. “We cannot negotiate with our desires unless we know our worth.” Always remember you’re worthy and never give up in life’s journey. And that journey is Beautifully explained by *Sharada Bharaty (Entrepreneur) “Even a broken crayon can continue to draw a masterpiece. I’d like to believe my life is like that crayon, continually enjoying the journey of creating without obsessing over a goal.”*

A woman’s worth lies in her. It lies in her definition. And it lies in her meaning of self. My meaning of self is my intellect, my supremacy, my importance and my worth. I am smart because I say I am. I have authority because I know I do. I have prominence because I am alive. Beauty and age has

no importance. It hurts when we feel ineffective. It hurts when we feel irrelevant because the society doesn't give importance to girls who are smart, and proficient and powerful. For the women who are hurt with those words, should not feel offended. It's not okay that they use these words to hurt, but it's okay that you feel hurt. Because with that in mind you can nourish yourself, nurture yourself. Everything is set up purposely so that you do feel targeted when these words are tossed at you, but don't give your pessimists that power, when you already know that you are efficient. Take power from the word unimportant and give into your desire to be insolent, effective, and influential.

Standing in the developmental years of this century, how long will it take us to delete the ignorance of the past? And how long will it take us to delete this message in our own minds? Unless the declarations of social assessment scream more deafeningly than our inner understanding, we won't be able to hear the truth of what our souls know to be true. We are still confined by invalid perceptions that diminish our current veracity. There are many women who still continue to measure their worth according to these standards. Yet there are women who refuse to be confined. They're the women who can mummify the ignorance of centuries past and know their true worth in today's world. We are unrestricted to create a new definition of our worth. We are open to enter all professions and follow our dreams. We are at liberty to see ourselves through a wider lens that arrests the totality of our being. And we are free to love the person we want irrespective of age, gender, race or economic standards. The freedom to love should know no limitations. Hurdles that limit love are collapsing.

As long as we live with our reality and express our lives completely, there's no limit to our worth. We are domestic only to our dreams not to the society's expectations. To live in complete freedom is to live the life we pick, without restriction, humiliation or explanation, to know our worth exists far beyond the constraints of communal factors, to see ourselves in the big depiction of life and appreciate the big version of who we are, already.

“Make yourself worth by blowing the tiny, innermost glints of possibility into blazes of accomplishments. You have what it takes to be triumphant, self-determining and a valiant woman. Make yourself a woman who rises up in splendor and liveliness, her vigor is charismatic and her sense of possibility infectious”.

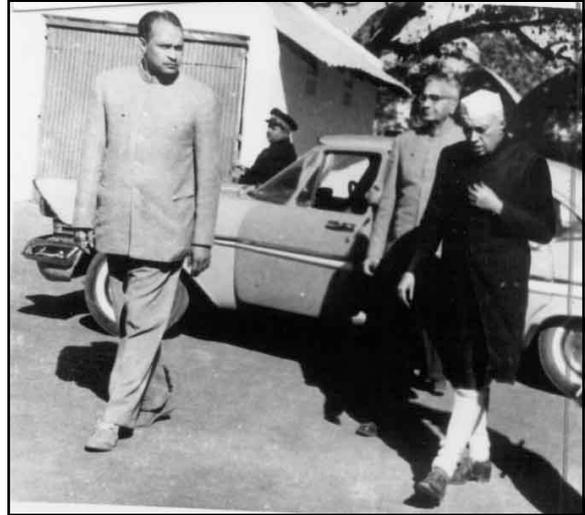
Subhrata Pattnaik, Cuttack

*Dr. Lenin Mohanty, Editor, Odisha Review,
Information & Public Relations Department, Bhubaneswar.*

"The future generation in Odisha will hardly believe that there was once a man born in Odisha who strode into unbelievable heights."

Indeed, he did let loose legends enow. A vibrant patriarch, a renaissance rebel, a revolutionary, a statesman of international repute, a zealous industrialist, a veteran politician, a humanist, an activist even though a dreamer - and a mighty force — was all that what Biju was. The graph of his life was awe-inspiring.

As the young Ulysses of Odisha Biju pedalled away to Peshwar (4000 kms on road) from Cuttack on his bicycle with his friends



Biju - The Greatest Odia in Living Memory

Prof. Rajkishore Mishra



Bhramarbar Sahu and Amar Dey at the age of sixteen. He topped the list of selected apprentices of the Imperial Royal Air Force in 1934 and became a dare devil pilot in 1937. The trumpeting call of the Father of the Nation to free India from the British yoke coloured his fancy. Quite surreptiously, he rendered all help to the nationalists like Aruna Asaf Ali, Jayaprakash Narayan, Achyut Patwardhan, Narendra Dev and Ram Manohar Lohia by risking his life. The alien government tried to desist him from such misadventure, but Biju paid no heed. The young rebel was arrested on 13.1.1943 and was put

behind the bar for two years. He was released on parol in 1945. His hatred against colonial governance and commitment to the cause of the Nation made him appear as a vibrant leader and Odia patriarch. He was elected to the Odisha Legislative Assembly in 1946 from the Cuttack constituency at the age of thirtyone. The year 1947 brought special distinction to Biju. Hardly three weeks before India's independence at the behest of Pandit Jawaharlal Nehru, Biju startled the world by braving a perilous air voyage to Indonesia on 22.7.1947 in his post -world war vantage Dakota to rescue Sultan Sjahrir, the-then

Prime Minister of Indonesia and flew him back to Delhi on 24.7.1947. A marvellous feat indeed ! His unique adventurism and commitment to Indonesia's independence (from the Dutch occupation) was gratefully acknowledged and he was crowned with Indonesia's highest national honour, i.e., *Bhoomi Putra*. Again hardly six weeks after India's independence Biju was summoned by Prime Minister Pandit Nehru to thwart Pakistan's sinister design of occupying Kashmir. The king of Kashmir had already signed the Instrument of Accession with India on 26.10.1947, but Pakistan had by then, forcibly occupied a major chunk and was advancing toward Srinagar. Even an hour's delay would have cost India heavily. At this critical juncture, Biju landed in Srinagar airport with the 1st platoon of troops on 27.10.1947 at 10 a.m. braving all possible hazard. Pakistan was forced to recede.

Constituencies supported Biju although from 1946 to 1995 barring aside a few occasions when forces of adversity envied him. Bhanjanagar (1952), Jagannath Prasad (1957), Patkura (1967), Rajnagar (1971), Patkura (1974), Kendrapara LSC (1977), Patkura again (1980), Bhubaneswar (1985), Aska and Cuttack LSC (1996) voted him to power with overwhelming majority. This shows how loving and endearing was he among the people of Odisha. His was a fifty-year march with unabated zeal and love for the people. When he felt that others were not sharing his grand vision and were stooping low, he hastened to wriggle out of such party folds, and did never hesitate to abandon his old veteran political acquaintances. He trusted the mute millions of the State who were struggling for mere existence, the dreaming youth who were struggling for a station in life, the skilled but deprived artisans, sculptors, musicians and scholars, who were sheepishly clinging to their past heritage, the

motherland Odisha, alias Kalinga, which after historic vicissitudes was struggling for distinct identity, the untapped potentials of nature and the untamed water resources which would revolutionise state's economy and above all, the ignominy that by and large, had permeated through all his fellow brethren which besides others, included the folk, the tribes and the female populace. For them he bled. And no crocodile tears. For them he became

restless— an untiring vigil. He scoffed at motivated administrative machinery. He disparaged the political parasites who were sucking the blood of the laity. He wished he had powers to impose Draconian laws and punitive measures to check corruption in public life. He further suggested the armed forces to take over the govt. if need be, to purge off the scourge of corruption. The over-staffed bureaucracy was constantly worrying him. Reflecting on caste-based reservation policy, he reacted sharply : the poor have no caste.

Such revolutionary attitudes often made him friendless which he never bothered as his goal was to march alone (*ekla chalo re*), come what may. He was the uncrowned sovereign in Indian peninsula.

He was preoccupied with Odisha's heroic tradition and cultural heritage. He floated the Kalinga card to enthuse the youth. In 1951, the UNESCO instituted the Kalinga Prize for popularisation of science with a generous grant from Biju and eventually he became the Founder President of the Kalinga Foundation Trust. He even wanted the Utkal University to be named as the University of Kalinga. In his Kalinga industrial empire he had set up the Odisha Textile Mills, the Kalinga Tubes, Kalinga Tiles, Kalinga Iron Works, Kalinga Air Lines, Kalinga Refractories etc. with a view to highlighting the state potential.

His first spell of Chief Ministership was hardly for 15 months (i.e. from 23.6.1961 - 2.10.1963) and during that glorious phase he did materialise the Rourkela Steel Plant, Hirakud Multipurpose Project, Talcher Thermal Project, MIG Factory at Sunabeda, Ferro Silicon Complex at Theruvali, Hydro Electric Power Project at Balimela, Engineering College and Medical College at Burla, Engineering College at Rourkela (REC), Sainik School, D.M. School and Regional College of Education at Bhubaneswar, Regional Research Laboratory, Odisha University of Agriculture & Technology, the Express Highway and above all, the Paradeep Port. The three-tier Panchayati Raj system was one of his sought-after visions.

The Second phase of his Chief Ministership i.e. 5.3.1990 - 15.3.1995, though not as eventful as the first phase, sowed the seeds of political stability and greater understanding. It is still on record that the Biju Janata Dal in the 10th election to the Odisha Legislative Assembly could secure 123 seats out of 147 and reduced the Chief Opposition strength to 10 as against the required number of 15. This phase marked Biju more contemplative. His thoughts squarely lay on upliftment of women, tribal development, communal harmony, participation of NRIs in furthering the state economy, implementation of austerity measures and hard decisions and creating an atmosphere of harmony, broadmindedness and fellow feeling. The Samanta Chandra Sekhar Planetarium which was inaugurated by Biju Patnaik on 15th May 1992 is a fitting tribute to Pathani Samanta, the Great Astronomer, for whom he was always feeling proud. He was the architect of India's second liberation movement as was rightly commented by Prem Vaidya. He divided Odisha into 30 districts in 1993 with a view to bringing administration to the door-step.

Biju was summoned to Kansa's Durbar during the Dhanu Yatra at Baragarh which he faithfully obeyed. He beat gongs at the Lions Gate and took up extensive repairs of Lord Jagannath's temple. A dreamer, he was to dream of big dreams. He picked up Gomati Jharia and Sabi Majhi, the fiery tribal women activists as members of the Tribal Women's Advisory Committee and had chalked out grand plans to iron out disparities between the coastal and the hilly and verdant hinterland.

Biju Patnaik over these years has grown larger than life, for, it is apt to reflect that he was legendary. He lived a full life (5.3.1916 - 28.3.1997) of two and four score years and has left behind an indelible legacy for the posterity to feel proud. Those who shared his vision and did not believe that 'power is for the pelf' and are still committed to the cause of the people are indeed the beloved ones of Biju. He was a loner in life despite the professed allegiance of so many which he hardly took them to be genuine.

The resurrection of Bijuism is being slowly felt with the process of actualisation of some of the unrealised dreams that Biju Patnaik lifelong cherished. The Biju Patnaik International Air Port renamed by Hon'ble Prime Minister on 17.4.98, the Biju Patnaik National Steel Institute (BPNSI) and the Biju Patnaik University of Technology are some of the modern monuments which recall the spirit of Biju Babu. It was quite befitting to cherish the hallowed memory of Biju Patnaik by recently showering on him the posthumous Kharavela Award.

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The persisting subordination of women in India was brought out by the report of the Committee on the Status of Women in India (CSWI) published in 1975. The report broke the myth of women's equality which prevailed during the post-Independence years. The status of women in Odisha was not studied in a comprehensive way till 2004. This article is an attempt to update the data and analyze change in women's status. The status of women in Odisha is a complex issue and with many intricate factors of which only some have been covered in this article.

consistently from 967 in 1991 Census to 950 in 2001 Census to even lower 934 as per the 2011 Census. Low CSR shows a remarkable cluster and not a scatter. The districts with the lowest CSR in the 2011 Census data are Nayagarh (851), Dhenkanal (870), Angul (884) and Ganjam (899). The contiguity of districts with very low CSR in their urban population that is disturbing. There is a set of three adjoining districts Ganjam, Nayagarh and Boudh where the CSR (urban) are below 860 (2001 Census) a figure comparable to female to male ratio (FMR) in some of the districts of Haryana and western UP.



Women of Odisha : Status and Challenges

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FEMALE SURVIVAL & MORTALITY

Sex Ratio

Women's status is linked to the whole cycle of female survival beginning with the sex ratio which is a fundamental indicator in our understanding of inequality and female aversion.

The sex ratio in Odisha declined drastically from 1086 in 1921 to 972 in 2001. However it has improved marginally to 978 as per 2011 Census data.

The decline in Child Sex Ratio (CSR) is the main cause of concern as it continues to decline

Outside the data and quantitative analysis provided by academics and government officials, the mass killing of the girl child before birth found public concern, as for instance the media highlight of Nayagarh District in 2007. It seems that the PCPNDT Act (1995 & 2003) has yielded little result. Easy availability and affordability of sex determination techniques coupled with the absence of proper enforcement of Acts and poor Monitoring of clinics and medical labs (registration, maintenance of Form "F" and analysis of birth and death registers / records). The legal mechanism seems inadequate to tackle the sex determination incidences whether from the demand side or the supply side.

The problem is a social one specifically linked to girl child dislike due to dowry and lack of property rights. Simultaneously, while we need to recognize sex selective abortion as an act of discrimination, we also need to respect the right to abortion.

Infant Mortality Rate

The Infant Mortality Rate (IMR) for females has remained lower than males throughout the last two decades. Overall the IMR of Odisha is 65 while that of all India is 50. Female IMR (FIMR) in the state remains one of the highest in India being 66 females per 1,000 live births, with the national figure (India) standing at 52 Rural FIMR is 68 in comparison to 55 of India. There is also a differentiation between urban FIMR in Odisha (46) in comparison to the Indian (34). The urban rural gap is also of high concern and needs special attention.

Maternal Mortality

Maternal mortality in India accounts for the largest number in the world. India's MMR stands at 254 with Odisha at a much higher 303 (SRS, 2009). The NFHS 3 survey reveals that the 62.7% of the ever married women in the age group of 15 to 49 years have anemia which is one of the main causes of maternal mortality besides having low Body Mass Index (BMI). The National Rural Health Mission set up to reduce maternal mortality as one of its goals is too medical and misses out on the social component which is so important to women's health which continues to be below any normal standard of acceptance. The Janani Surakshya Yojana (JSY) under the National Rural Health Mission (2005) has been introduced to decrease MMR and IMR and increase institutional deliveries.

Maternal Health

There has been some improvement in the health provisions for women in Odisha. Antenatal care has increased from 65% found in NFHS 1 to 87% in NFHS 3. Institutional deliveries however remain low though there has been an increase from 14% (NFHS 1) to 39 % (NFHS 3). Reproductive health care is linked to hospitals and service provision and policy needs to look into the interlinkages with women's working conditions such as in agriculture.

Marriage & Fertility

The silver lining is a declining age in marriage of age of below 18 years. There has been a larger decline in Odisha compared to the all India level. The rural level (39.7) as expected is higher than urban (24.3). There is also a clear role of education as those with less than 5 years of education who married below the age of 18 were 52.1% compared to those who completed 5-9 years falling as low as 29.8% and those with 10 years of literacy it fell to 9.3%. It proves the generally held notion that education plays an important role in eradicating child marriage.

Fertility rate has declined marginally from 2.5 as per NFHS 2 to 2.4 as per NFHS 3.

Several Schemes such as IMR Mission and Mortality Reduction Mission and National Rural Health Mission exist in the State to tackle the situation. What is needed is a social approach to health together with the medical and structural. Increase in decision making by women, and improving awareness, accessibility and services by making them available at the door step, would supplement the fulfillment of health indicators.

EDUCATION

In the state, the establishment of the First Girls High School by Commissioner of Cuttack, Mr Ravenshaw in 1906 and the efforts of Reba Roy and Rani of Khallikote in spreading female education in the beginning of the 20th century indicate the emerging social awareness on the need for literacy among women. Female literacy in Odisha has been lower than male and has consistently been below the Indian level. The gender gap also remains at a high 18% (Male-82.40 and female – 64.36, 2011 Census) an indication of gender bias. As per the 2011 Census, the overall literacy stood at 73.45. As a stand alone indicator, it indicates an increase from 4.5% in 1951 to 64.36% in 2011. Women have fared better in literacy because of a number of entitlements provided by the State such as the Sarva Siksha Abhijan. Further assessment of dropouts and new methods of bringing in the girl child would bring them on an equal ground with the boys.

There is a wider gap in Scheduled Tribe (ST) literacy as girl children in many rural tribal areas remain out of school. Nabarangapur for instance has female literacy of 37.22 as per the 2011 Census, and four southern tribal districts average being low at around 37%.

There exists disparity between the general masses and indigenous people. Women from the ST communities remain excluded and though enrolment is increasing, dropout is very high. The State has taken up schemes such as provision of bicycles to ST/SC girls and special hostels but the situation remains critical in tribal areas.

WORK PROFILE

Female work participation is considered as an important indicator of women's involvement in economic activities. As per the 1971 census the percentage of women workers in Odisha to total workers was 10.85 and increased to 31.35 by 2001, and rural work participation of women was at a higher 33.47 % while urban was only 15.45% as per 2001 Census. This is the reason for high female participation rates of the economically poor, the majority of whom reside in rural areas.

Unorganized Sector

75% or more of women are in agriculture and many in the unorganized sector such as mining, beedi manufacturing, NTFP collection and construction work. One of the changes brought in by globalization is the extended unorganized sector within the recognized organized sector which is deprived of most benefits provided by law and agreed upon by the organized sector. This includes maternity benefit, pension and insurance. There is no social protection who work as contractual labourers in the organized sector even though they should be beneficiaries under the Factories Act, The Mines Act, The Dock Workers' Act, The Employees' State Insurance Act and the Workmen's Compensation Act which provide health benefits and compensation to the workers in cases of ill-health and injuries.

In the unorganised sector where the majority of women workers are concentrated, no occupational safety and health safeguards are in place. The female labour force constituting one third of the rural workers in India "face serious problems and constraints related to work such as lack of continuity, insecurity, wage

discrimination, unhealthy job relationship, absence of medical and accident care'. The tragic paradox of women's labour in the organised sector is their highly visible presence as contract labour within the public sector mines, the most patriarchal of work. Labourers by the thousands employed in head loading, stone breaking, cleaning and other forms of daily wage labour where they are entirely at the mercy of petty contractors and have absolutely no work safety or security. In the unorganised sector they are forced to work beyond work hours, even in advanced stages of pregnancy, have no leave or creche facilities, and are always under threat of being thrown out. In some of the quarries in Odisha, women are forced to work at night and are sexually abused and therefore found not to be 'respectable for marriage'. The economy of women in a patriarchal set up is linked to social norms of acceptance and rejection.

Employment

Reservation of 30% jobs in Public sector for Grade B,C,D has meant higher women's employment in administration. The percentage of women in the organized sector has increased from 4.1% in 1970 to 15.4% by the end of 2007. In the high echelons of administration women constitute less than 0-14%. In comparison there has been a decline in private sector employment for women from 18.7% in 2000 to 10.8% in 2007. The employment registration indicated that only 0.35 lakh were women job seekers compared to 1.47 lakh men. We find that women usually go in for temporary and standby jobs because of the prevailing diffidence to employ women in regular full time jobs with good working conditions which are considered as expensive.

Domestic Work

Another issue of contention is domestic work as an economic activity. In Odisha besides carrying out domestic work such as cooking and looking after the children women also carry out unpaid activities such as maintenance of kitchen gardens, work in household poultry, collecting firewood and cow dung, husking paddy, grinding food grain and collecting water from at least 2-5 kms distance. Unfortunately, under the age of five, girl children at the cost of their education and well being, engage in near equal domestic activities as below 15 years and adults.

Micro Credit

The network of Women Self Help Groups (WSHGs) across the State and the proliferation of Panchayats with women going above the mandated one third provide work to large numbers of women. Mission Shakti is an umbrella of women self help groups. Though large in number economically on the ground there is a weakness. As per government records there are 3.87 lakhs WSHGs with 46.5 lakh women as members with 4.38 lakh WSHGs having a credit link. In contrast as per NFHS 3, the micro credit loans are very low though knowledge of micro-credit has been found to be high. Some SHGs are doing well after being linked to Mid Day Meals of various schools. Other SHGs have started to tie up with MNCs and Micro Finance Institutions. There is a risk factor in such linkages as they work only for profit while SHGs need a social safety net as they are composed of very poor and mostly illiterate women. The increase in their burden of work through Government entrusting them with too many schemes to run, can also have a deterrent effect as most women have heavy household duties.

MGNREGA

MGNREGA has been introduced as a social net for accessing work for at least 100 days, but in the context of women certain problems have emerged. Among these are the issues related to hard labour by women who are pregnant, single women who have no partners and lower wages. Leaves out old age who are most vulnerable. There has also been less work and low and delayed wages. NREGA together with RTI has emerged as powerful tools to strengthen those outside the formal economy such as women and these should be monitored and taken advantage of.

Trafficking, Migration and Displacement

As the state joins in the race for globalization there are the adverse effects of displacement, migration and trafficking experienced by women which need urgent attention. Some are forced to move while in the case of others little work and low literacy combine to women moving out to new pastures which unfortunately are unsafe. Exploitation by agents in Delhi, forces them to leave their jobs as domestic workers to join other women in sex work. Some migrate as far as Haryana and Punjab to marry four-five brothers in the restructuring of the mythological Draupadi. Unfortunately they remain sex slaves at night and unpaid farm workers in the day.

About 50% of migrants from Odisha are from the tribal districts women. They go to Hyderabad or Raipur or within the State to Bhubaneswar, to work in brick kilns where they are paid Rs.80 per 1000 bricks made, which normally takes 12 to 15 hours and involves physical labour. They migrate as access to PDS

is low, food for work is inadequate to ensure food security. Frequent droughts make agricultural productivity low and availability of work throughout the year is low.

Issues that affect the women migrants are low wages, non payment of wages, gender disparity in wages, forced sex work and trafficking, violence, increased domestic violence and exploitation of single women. There is a lack of education and neglect of children's education, lack of health services for self as well as children and absence of social network in the destination. Food insecurity and malnutrition follows them into migrant territory. There is also lack of legal mechanism for protection and no awareness among the women on rights and facilities of protection. Prosecution under the Inter State Migrant Workers Act is low as seen from the data of the Labour Department, Government of Odisha. In the years 2000-01 and 2001-02, only 95 and 53 cases have been filed out of which 7 and 13 cases have been disposed respectively. There is a need to empower migrant women and make migration safe.

Due to construction of large dams, establishment of large industries, defence related production, wild life sanctuaries and communal riots, people are being displaced in large numbers. While in migration women go out for a few months, those who are displaced lose their homes and communities permanently. They face the same problems as migrant women, some are born in camps and suffer much more. In Lanjigarh for instance where a large industry has been set up there is large scale sexual abuse of women and trafficking. The law in place in Odisha relating to Rehabilitation does not make any specific provision for women.

WOMEN IN POLITICS

In politics beginning with women joining the freedom movement, to 2009 where elections reflected the sorry status of women in politics in Odisha it has been a struggle. No woman from Odisha is represented in the Lok Sabha. In the Assembly there are only 7 women. Women's inclusion in parties ranged from 8 in BJD to 15 in Congress but their own strength is emerging as 37 women stood as independents in the last national elections. Due to exclusion from political decision making their impact on the state would remain limited, so more women need to be included in the political process. The State has already implemented 50% of seat reservation in Panchayats for women.

MARGINALIZATION WITHIN MARGINALIZATION

There are vulnerabilities among the 13 % of women belonging to single headed households. The women with disabilities (WWD) are marginalized.

TRANSPARENCY & ACCOUNTABILITY: GENDER BUDGETING

One measure of accountability is the amount of money spent on women's programmes. It is important as ensuring equality cannot be achieved unless there are committed funds available for implementing the various policies and schemes introduced by the government. Recent data indicates that though expenditure for social services has been increasing but Women Specific programmes constitute less than 1% of it. Almost all the women specific programmes are concentrated in the Department of Women & Child Development but it has to be noted that the women component planning mandates that all

sectors should have 30% of its resources to be allocated for women. The new approach is to enlarge the scope to gender audit which looks at the impact on women of allocations and expenditure.

CONCLUSION

With poor women left with few economic alternatives, as agriculture shrinks and women's access to credit is limited and the dangers of the Micro-Finance Bill looms large; there is a need to open minds and visions on these concerns and specificities of women's situation in the economy. Patriarchy and feudal structure strengthen in these situations and we need to be aware of this danger. There is a need for inclusion of the very poor, the disabled and marginalized. Under these situations education and political power will assist to climb barriers.

Governmental initiatives have been sensitive to women's needs but more concrete steps are needed such as gender audit to know whether the efforts are bearing fruit or not. While the norms of globalization becomes binding on elected representatives and governments, it is however imperative that the policies, programmes and schemes are gender sensitive and not gender neutral.

Women are moving forward in every field motivated by the urge to excel and to find their own space in this universe. Their efforts in politics at the Panchayat level changed the power equation at the local level. Women's agency has emerged as a powerful indicator of the search for justice and equality. They are using their advantages wherever they can and there are more sectors they have entered as engineers, computer analysts and even venturing to space sciences and industry.

We need to build on this advancement of women in Odisha and create a society where we respect women and their human rights.

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The Panchayati Raj system of administration is not something new to India. The word "Panchayat" literally means "assembly" of five wise and respected elders chosen and accepted by the local community. Since the beginning of the recorded history Panchayats have been an inseparable part of Indian villages. In ancient and medieval periods village Panchayats played an important role in the economic and social life of the rural people. Everyone in the village used to show absolute obedience and respect to the Panchayat, and the members of the Panchayat used to exercise their parental control over the villagers. Foreign invasions proved disastrous for

of India Act 1935 made attempts towards some empowerment of local- self government in India.

Mahatma Gandhi had advocated for Panchayati Raj, a decentralized form of government. He stated that "True democracy could not be worked out by some men sitting at the top. It had to be worked out below by the people of every village." After independence, the Constitution of India, in the Directive Principles of State Policy declared, "The State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of



Panchayati Raj Institution - Odisha Perspective

Balabhadra Ghadai



the autonomy and survival of the Panchayats. When the Britishers came to India, the Panchayats in most places were already dead as the unit of administration. Yet, in some parts of India, the Panchayats functioned in half-hearted manner.

In the year 1882, Lord Rippon the then Viceroy of India, made a major attempt to reorganize the local bodies in India. The Resolution of 1882 was passed for the purpose and under it an attempt was made to revive the system of local self government in India. The Decentralization Commission, 1907, the Montague Declaration of 1918, the Government

self government." The aim was to foster democratic participation, to involve villagers in development of the community and to reduce the burden of the higher level of administration.

Balwantrai Mehta Committee appointed by the Central Government submitted its report in 1957 and came to conclusion that "We will never be able to evoke local interest and excite local initiative in the field of development unless we create representative and democratic institutions and invest them with adequate power and appropriate finances." The committee arrived at the concept of "democratic decentralization"

through the broadening of the concept of people's participation in Community Development. It recommended to take away more power from the centre and states and to vest them with the local units of administration.

The B.R. Mehta Committee recommended the creation of a three tier Panchayati Raj system with Panchayat at the village level, Panchayat Samiti at the Block or Taluk or middle level and Zilla Parishad at the district level. The Government accepted the recommendations of the Mehta Committee and the states of India Union passed enabling Acts for implementing the new system of Panchayati Raj. Rajasthan was the first state in India which adopted this new scheme on the 26th January, 1961. Almost all the states in India adopted this system. Thus, the recommendation of the Mehta Committee brought about a political and social revolution in rural India.

The Government of Odisha lost no time in implementing the report of the Mehta Committee. In 1959, the Odisha Panchayat Samiti and Zilla Parishad Act was passed by the Odisha Legislative Assembly. This Act came into force on 26th January 1961. This Act along with the amendments made in 1962, 1965, 1968, 1987, 1991 and 1994 continues to lay down the structure and powers of Panchayati Raj institutions in Odisha. The Odisha Gram Panchayat Act was amended in the year 1994 for incorporating the provisions of 73rd Amendment of the Constitution of India. Earlier, in 1993 the Zilla Parishad Act 1991 had been amended for a similar exercise. The contemporary system of Rural Local Self Government in Odisha rests upon all these Acts and the Amendments made in these.

In the three-tier system of the Panchayati Raj, Gram Panchayat is at the bottom of the

organization, but is the basic foundation of the whole system. The Gram Panchayat is the executive body of the village ward members headed by the Sarpanch. It mainly consists of the representatives elected by the people of the villages. There is also a provision of two women and one Scheduled Caste and Scheduled Tribe, if they do not get adequate representation in the normal course. The Panchayat as a body accountable to the general body of the villages known as Gram-Sabha. The Gram Panchayat has two types of functions, such as mandatory and discretionary. The important mandatory functions are construction and maintenance of village roads, lighting of streets, supply of drinking water, digging of wells and tanks, establishment of primary schools, provisions for medical relief and prevention of epidemic, maintenance of birth and death records, implementation of poverty eradication, women and children welfare, social welfare programmes and regulation of public distribution system etc. The main discretionary functions are establishment of reading rooms and libraries, plantation of trees, maintenance of parks, playgrounds, maternity and child-welfare centres, promotion of co-operative farming and other co-operative organizations etc.

The Panchayat Samiti is the intermediate tier in the Panchayati Raj system. In Odisha, the Panchayat Samiti Act 1959 came into operation w.e.f. 23rd January 1961. Subsequently it underwent several amendments in 1961, 1968, 1994, 1995 and 2003. Like all other states, a Panchayat Samiti in Odisha consists of elected as well as ex-officio members. From each Gram Panchayat falling within a Block, the voters elect one representative who represents them in the Panchayat Samiti. All the Sarpanchs of the Gram Panchayats which fall within the Samiti area are ex-officio members of the Panchayat Samiti.

Likewise the M.L.As and M.Ps who represent the constituencies which fall wholly or partially within the Samiti Area are its ex-officio members. Panchayat Samiti members elect one of their members as Chairman and another as Vice-Chairman. Odisha Panchayat Samiti Act lays down the functions of Panchayat Samiti. These include planning, execution and supervision of all developmental works of the Samiti Area; execution of community development projects; management of primary education, management of trusts, endowments and of other institutions as may be entrusted to it by the State Government; supervision of laws relating to vaccination and registration of births and deaths; approval of the budget of the Gram Panchayats, and such other functions as may be assigned to a Panchayat Samiti by the Government of Odisha.

The Zilla Parishad is at the apex of the Panchayati Raj system. Each Zilla Parishad in Odisha consists of both directly elected as well as ex-officio members. One member is directly elected on the basis of adult suffrage from each constituency within the areas of the Zilla Parishad. Ex-officio members include Chairmen of all Panchayat Samities, members of the State legislature and Parliament, all district level officers of the Medical, Public Health, Public Works, Engineering, Agriculture, Education, Veterinary etc. The Zilla Parishad is expected to function as an advisory body over the Panchayat Samities. As such its functions relate to: (a) examination and approval of the budget of the Samities, (b) distribute funds allotted to the district by the government to the Samities, (c) supervise generally the activities of the Samitis in the district, (d) co-ordinate and consolidate the plans of the Blocks and prepare plans in respect of the entire district, (e) secure the execution of plans, projects, schemes or other works common to two or more Blocks, (f) exercise and perform such of the

powers and functions of the district board as are transferred to it, (g) advise the government on all matters relating to development activities and maintenance of services in the district, (h) advise the government on the allocation of work among Panchayat and Panchayat Samitis, (i) advise government on matters concerning the implementation of statutory or executive order referred to it, (j) publish statistics and other information, (k) obtain information from the local bodies, and (l) establish, maintain and expand secondary, vocational and industrial schools.

Thus, Panchayati Raj institutions have come into being to give power to powerless, voice to voiceless by bringing the hitherto neglected sections of the society into the arena of political, social, and administrative development to achieve inclusive growth. Here it can be concluded with the words of Balwantrai Mehta that “The people of rural India may be illiterate, but they are inheritors of a great heritage and culture, and in course of time they are sure to come with their own. If we have faith in Panchayati Raj, in our rural people, and in their capacity to put their strength to productive uses, we are sure, the success will ultimately be theirs. Panchayati Raj may have many weaknesses today, but it is a vital force of tomorrow.”

Balabhadra Ghadai, Principal, M. K. College, Khiching, Mayurbhanj.

India's direct involvement in Sri Lankan politics came to a halt when the last of the Indian Peace-Keeping Forces (IPKF) left the territorial waters of Sri Lanka on March 24, 1990. The key players in the whole drama were the then Prime Minister V.P.Singh, External Affairs Minister Inder Kumar Gujral and the Tamil Nadu Chief Minister Karunanidhi. However the vital role played by Biju Patnaik has never been highlighted.

The Tamil insurgency in the island nation was played about by many insurgent groups like the LTTE, EROS, PLOTE, EPRLF and TELA.

surrender. India sent its contingent, named the Indian Peace Keeping Force (IPKF), part of the Indian Army, to enforce the disarmament, and watch over the regional council.

Although the Tamil militant organisations did not have a role in the Indo-Lanka agreement, most groups, including EPRLF, TELO, EROS, and PLOTE, accepted it. The LTTE rejected the accord and refused to hand over their weapons to the IPKF. After three months of tensions, LTTE declared war on IPKF on 7th October 1987.



When the Tamil Rebels Came Calling

Anil Dhir



The LTTE, which emerged as the main group, had an anti-Indian stand since its inception. It broke away from the other groups in 1986 and many bloody clashes occurred with the other groups. In July 1987, under pressure from Tamil Nadu which saw a flood of refugees, India intervened directly in the conflict by air-dropping food parcels into Jaffna. After negotiations, India and Sri Lanka entered into the Indo-Sri Lanka Accord. The peace accord assigned a certain degree of regional autonomy in the Tamil areas, with Eelam People's Revolutionary Liberation Front (EPRLF) controlling the regional council and called for the Tamil militant groups to

Soon the LTTE engaged in military conflict with the Indian Army, killing five Indian commandos. The Indian government ordered the IPKF to disarm the LTTE by force and launched Operation Pawan to win control of the Jaffna Peninsula. The ruthlessness of this campaign, and the Indian army's subsequent anti-LTTE operations, made it extremely unpopular, both among the Sinhalese and the Tamils.

In 1988, Sri Lankan Prime Minister Ranasinghe Premadasa kept his promise of withdrawing the IPKF if he won the Presidential election. After taking over in April 1989, he

started negotiations with LTTE, and clandestinely handed over arms to the LTTE to fight the IPKF. In March 1990, the Indian government decided to withdraw the IPKF. With the withdrawal of the IPKF, the LTTE had the upper hand. The Indian government knew that the other rebel groups which had supported the IPKF would be massacred by either the LTTE or the Sri Lankan Army. They decided to evacuate them to India and keep them in camps, till peace came to the nation.

On March 1990, two chartered ships, the M.V. Harshavardan and the M.V. Tipu Sultan were withdrawn from their scheduled sailings to the Andamans and sent offshore to Jaffna where the Indian Navy helped in evacuating the EPRLF supporters. On March 6, both the ships, with 1,375 EPRLF supporters, arrived at the port of Madras. Karunanidhi refused entry of the ships into the port, citing the presence of one lakh LTTE Tamil refugees in Tamil Nadu. He predicted that there would be a bloodbath between the two groups. For the pro-LTTE leadership of the DMK, the EPRLF men were traitors to the Tamil cause.

The ships were diverted towards Vishakhapatnam, while the Prime Minister and the Home Minister spoke to other Chief Ministers for taking the refugees in. Both Andhra Pradesh and West Bengal refused.

The Chief Minister of Andhra Pradesh, M. Chenna Reddy, allowed the ships to drop anchor at the outer harbour of Vishakhapatnam port and gave food and water, but refused disembarkation. He was worried that the Tamils were terrorists and would create unrest in the state. There was a cyclonic condition in the Bay of Bengal; the ships were tossed in the rough sea.

In spite of distress conditions, the Andhra Chief Minister stood his stand and refused entry into the port. After four days of very bad weather, the ships and the passengers were asked to leave the anchorage.

The Centre was at its wits end. Prime Minister V.P.Singh spoke to many Chief Ministers, but nobody wanted to touch the Tamil rebels with a ten foot barge pole. It was at this juncture that Biju Patnaik agreed to take them. The fact that he had been sworn in as the Chief Minister just four days earlier did not deter him from taking such a vital decision. He called a secret meeting with the top level bureaucrats and overnight decided to allow the EPRLF refugees to stay in a make-shift camp in Malkangiri.

Amid tight security, the apprehensive Andhra Police allowed the passengers to disembark. Right from the docks, they were taken in Army trucks, escorted by the Andhra State Police, to the Odisha border.

Within a week, Biju Babu extended his humanitarian goodwill once again. An Indian Air Force Ilyushin-76, named Mahabharata, had taken off from Trincomalee with the remaining 275 men, including the EPRLF General Secretary, K Padmanabha and the two Tamil ministers of the North-East Provincial Government. The flight was slated for a State in Central India, most probably Madhya Pradesh or Maharashtra, where a makeshift Camp had been made in an abandoned Army base. The Chief Ministers of these States too got cold feet, and refused entry.

The Prime Minister once again asked Biju Patnaik for help, and on the midnight of 11 March 1990, the IAF Gajraj Ilyushin transporter landed at Bhubaneswar Airport. The 275 EPRLF Tamils

on board were secretly taken to the Malkangiri Camp.

Nearly 2500 EPRLF Tamils were settled in the Malkangiri camp. They were given permission to set up their headquarters in the Camp and functioned as a government in exile. However, strict rules were imposed on them, and they were asked not to leave the Camp without permission. The Intelligence wing of the State Police was put in place to monitor them.

The tin-roofed structures at the Camp were beyond endurance of the refugees. Biju Babu took a personal interest in their welfare. Along with a small allowance, the Central Government provided rice at a subsidised rate through the Integrated Tribal Development Agency. They were under the constant scanner of the State's and the Central Intelligence agencies.

Most of the youth in the Camp had not been trained to do anything other than fight a war. The leaders of the EPRLF were not happy with the conditions at the Camp. They went on a hunger strike and demanded that they be housed in camps in Karnataka. They frequently left for Tamil Nadu without informing either the Central or Odisha Governments. Biju Patnaik repeatedly got Intelligence inputs about the trouble the refugees were creating. By that time, the Centre had warned that the LTTE had sent killer squads to eliminate the leadership.

The entire leadership of the EPRLF secretly left the Malkangiri Camp in the first week of June. They had gone to hold a meeting at Madras, where, on the 19th June 1990, the LTTE gunned down 14 members in a crowded colony in Chennai. The EPRLF Secretary-General K. Padmanabha and other senior leaders were butchered.

For the Tamils who were left behind, it was not enough to make both ends meet. The refugees were allowed to engage in labour to earn their livelihood. Many of them opened small businesses in the Malkangiri town. They married local women and became a part of the local populace.

At the peak of the post-IPKF days, there were 133 Tamil Camps registered with the United Nations High Commission for Refugees. Of these, 132 were in Tamil Nadu, and one in Odisha. Today, only 55 Tamils are left in Malkangiri and another 100 in other parts of the district. They have prospered and run successful businesses. Biju Patnaik was and still remains their hero. His photo finds place in the household temples.

Postscript: When Biju Patnaik was informed of the rising indiscipline in the Camp, he said that they were fighters, and knew nothing else except struggle. The State Intelligence authorities gave many reports of undesirable activities by the inmates, but Biju overruled them. It is a known fact among the Police chiefs of the time that it was these EPRLF cadres who had trained the Maoists in the making of Improvised Explosive Devices (IEDs). Prior to the Tamil presence in the areas, the Maoists engaged only in gun battles, it was only after 1990 that they started setting up booby traps, mines, tiffin bombs etc. which had the imprint of what the IPKF had faced in Jaffna, Velvettithurai, Elephant Pass and other places in Sri Lanka.

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BIJU, THE COMRADE OF THE WHOLE

Dr. Bhubaneswar Pradhan

Being influenced by heart I would like to say,
There emerged a brave hero in Britishers' day.
For the sake of the poors a true friend in need,
He could bring the dreams of mass to indeed.

Who forgot his happy and determined well to serve,
The people of the state and worked on their behalf.
Dams, ports, industries and the steel cities of state,
Are the signs of that emblem of a developing estate.

Being a pilot, statesman and a very witty person,
He helped to boost the agro economy very sudden.
Industry, art, sports, culture, commerce and trade,
Got apex in his tenure to raise very proud our head.

To promote "Kalinga" brand and agro university,
Raising numbers of districts from thirteen to thirty.
Declaring Grand in aid and taking over the schools,
Voyage to Indonesia and Increasing wage of mazdoors.

Empowerment of women and making strong in mind,
He took several measures to uplift Odisha in every kind.
To that great pioneer of Odisha I pay salute to his soul,
"Biju" the bliss of victory and the comrade of the whole.

Dr. Bhubaneswar Pradhan, Asst. Teacher, Kangaon High School, Bargarh-768033, E-mail-
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He is inimitable, peerless, extraordinary and is enduringly ground-breaking. He is a politician with incredible sincerity, the magnate entrepreneur from Bhanjanagar to New York Times; he bestrode both the worlds with magnificent ease and uncompromising regard, chastely on the strength of Odia identity, which was then not as established as it is now. The marque identity of Odisha, Biju Patnaik in many ways continues to be the “first” name of Odisha, an icon who is not only recalled as a politician but a character who could dream colossal and achieve colossal. And so precisely he is believed to be the draftsman of

Biju Patnaik had once reflected “In my dream of the 21st century for the state, I would have young men and women who put the interest of the State before them. They will have pride in themselves, confidence in themselves. They will not be at anybody’s mercy, except their own selves. By their brain, intelligence and capacity, they will recapture the history of Kalinga. I would like my Odisha of the 21st century to have excellent artisans, superb craftsmen and sculptors, greatest musicians and poets”.

The legendary Biju Patnaik had a multi-dimensional persona: a valiant flyer, freedom-



A Tribute to the Pilot - Patriot Biju Patnaik

Subhrata Pattnaik



modern Odisha. He ushered in sanguinity an empire-building drive and new international perception without a trace of pettiness and elevated the morale of Odias. He is perhaps the only conqueror, who ever lived. “He can do anything”, that’s what once our first Prime Minister remarked about him. The national flags of 3 countries – India, Indonesia and Russia were draped on his body in his last journey. Heads of countries, Premiers often do not have such source of pride. Biju Patnaik is someone who is not to be confined and cannot be confined in a state or a country. He was predestined for the globe and he lived global.

fighter, Chief Minister, Union Minister, monarch in Indian politics and above all the contemporary architect of modern Odisha. Anand Bhavan in the utopian city of Cuttack is a standing witness to this prodigious son of Odisha. Anand Bhavan (The House of Amusement), the ancestral house of Biju Patnaik at Tulsipur- at the heart of Cuttack, is dedicated to the people of the state as a museum cum- learning center by The President His Excellency Shri Ram Nath Kovind on 17th March 2018.

Biju’s ancestral possession has now been turned into a museum and a study center.

To the generation following and the youth of Odisha, Anand Bhavan is a befitting applause. The enshrined building has been renovated with lawns, fountains and lot more. Certain old belongings of Biju Babu remain to be part of the museum. It was handed over to the state government in January 2015 for the celebratory museum. It was built by Biju's father Laxminarayan Patnaik in 1931. Biju's family lived here for many years. Turning this historical dwelling into the Biju Museum and Memorial is a portentous step in remembering the man who had no parallels. Odisha's Department of Culture and Odia Language has been instrumental in turning Anand Bhavan into a national-level museum and a glistening place for those who loved Biju Patnaik from core of their hearts.

Biju Patnaik was born here on March 5th, 1916 to Laxminarayan and Ashalata Devi. It was this environment of self-determination that made Biju whatever he was in the later part of his life. Bijayanand became Biju - a Marchen by himself. Biju's student life was spent in Cuttack and it was Anand Bhavan that moulded him into a wunderkind.

A visitor can have a glimpse of the possessions and can familiarize himself with the attributes of a man who was valued by Pandit Jawaharlal Nehru. In the museum, experiences are shown to create more happiness than material goods because they provide positive personal reinterpretations over time. That is, as we visit the memories of those days, we'll have a tendency to psychologically weed out any negative memories. Experiencing such a magnificent museum, can also become a meaningful part of our identity and contribute to successful social relationships in a manner that material items cannot.

So I would say going to "Anand Bhavan" will make us (Odia) happier and will give us a moment to cherish the hero.

Anand Bhavan was also the bystander to the birth of Biju Patnaik's three children - Prem, Gita and Naveen. In 2006, the Department of Culture

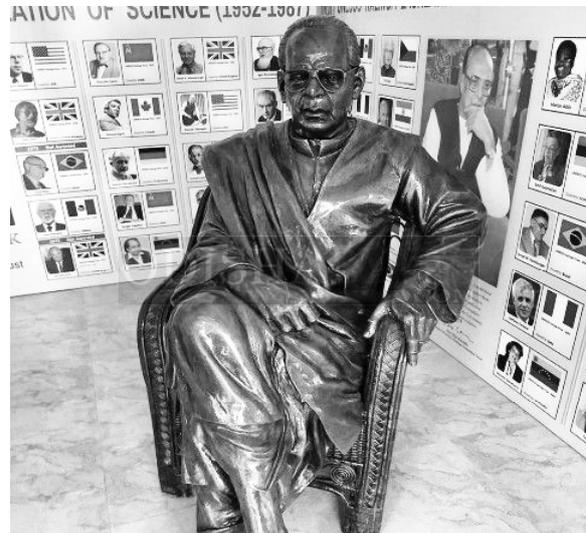
proposed the idea of turning this House into a National Museum and Chief Minister Naveen Patnaik willingly agreed to the idea. The ancestral property was handed over to the Department and the work began in the right earnest. In 2015, the Record of Rights was transferred to the Government. The Works Department began renovating and transforming the place into an honoring place. In less than a year, the Museum saw the light of the day.

The four rooms on the entrance are open to the public. One can see the possessions of Biju Patnaik - the air-gun, a stamp holder and the hat he used during the 1992-Kalinga Bali Yatra. Visitors can also peep through Biju's hand



writings and his autograph in Odia and English. Other possessions like the almirah, the hat stand and the long arm-chair are up for view. The second room presents the dining set that was used by Biju and the cutlery. The third room exhibits Biju's bed-room and the effects. Biju was a voracious reader and used to relish books of various kinds. Two book trays can be seen alongside the bed from where he used to pick up books of his choice. One can also see the inhaler, oxygen cylinder used by him. Biju's old apparel along with details has been displayed elsewhere in the section. The drawing room has some important collectables - the pen stand, the leather brief-case and the sofa set.

The right side of the Anand Bhavan entrance displays 'Pages from the Tall Man'. The left side of the memorial's entrance is reserved for the Kalinga Foundation Trust which was instituted by Biju for propagation of science. This section displays the pages of the UNESCO-administered prize: past awardees, their work, photographs, books published by the Trust and the registration certificate. An imperative addition to the memorial is the portrait of Biju Patnaik drawn by the noted artist Rabi Narayan Rath. The collage has been drawn amalgamating different frame of mind of the Leader. The other pull of Anand Bhavan is the Study Center. Two rooms on the upstairs are set aside for the reading public. Besides books and references on Biju, this Center has other books too. Biju Patnaik read books across subjects and keeping that in vision, the Study Center has been designed. There is also an e-library. Anand Bhavan is open from Tuesdays to Sundays with Mondays being off days. The memorial has a separate calendar by the Culture Department. Anand Bhavan's main hold is actually the infrequent snapshots of Biju



Patnaik. The photo-arcade is fittingly designed into Biju's early days, the entrepreneur chapter of his life, his political life and a few pictures from his socio-cultural life. These photographs catalogue the history of the man and his mission. Visitors can see these rare pictures from the entire array of Biju's life.

The Culture Department's video encompassing the life of Biju is another fascination. His spoken words will be of great curiosity for the visiting public. Anand Bhavan was not only the vision house of Biju Patnaik, it was also a bystander to his aspirations, promises and life's major accomplishments. Biju's life in the British Air force, his apprehension, his heroic actions to carry freedom fighters to different places incognito, his captivity in Delhi's Lal Qilla jail and later Naini jail all are rare happenings. Even when Biju was released on parole by the British authorities, he used to be kept under constant surveillance in Anand Bhavan. Biju envisioned of a modern and effervescent Odisha from his Cuttack residence. Anand Bhavan was the preparatory venue of his industrial kingdom and

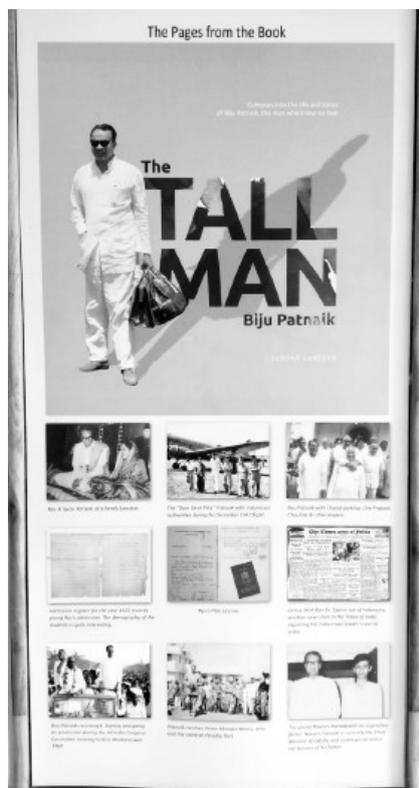
it was here that the blue-print of an industrially-rich Odisha was laid down. The serene vicinities of Anand Bhavan boosted the restless Biju to take the next big jump. Biju Patnaik had his House 'Naveen Niwas' constructed in Bhubaneswar much later; yet he hadn't stopped coming to Anand Bhavan. His political meetings were followed by overnight breaks in Anand Bhavan and meeting with people. This was also the place which housed the Janata Party office between 1985 and 1990. Biju Babu continued to stay here until he built his new house 'Naveen Niwas' at Bhubaneswar. But Anand Bhawan was the witness to many historic moments of India's freedom struggle and it has contributed significantly to Odisha's social and political movements. Chief Minister Naveen Patnaik way back in 2006 had suggested the idea of transforming this historic place into an art center.

Also it will be an honour for us to witness the iconic Dakota DC-3 aircraft at Anand Bhavan in which Biju Patnaik flew two Indonesian freedom fighters out of the country in 1947 in the museum. The Dakota will be brought from Netaji Subhas Chandra Bose International Airport in Kolkata where it has been gathering dust since 1947. The aircraft was part of a fleet of Kalinga Airlines' 18 Dakotas that was founded by Biju and operated from Calcutta. He was the chief pilot. This Dakota plane is not only the pride of Odisha but also the pride of the Nation. The rescue of Sukarno at the behest of Prime Minister

Nehru was carried out by late Biju Patnaik is an honour for Odisha as well as for India. Hence, the government has started repairing and renovating the same. Odisha government has planned to keep the aircraft in the premises of Anand Bhawan. The Airport Authority of India had sent a letter to the state and the government

has initiated the process to bring the craft back to Odisha. The government land being used as a playground across the road in front of Anand Bhavan has been found appropriate after inspection for construction of a structure for displaying the aircraft as an extension of the museum. The craft is massive and will require a lot of space to exhibit. It is also in a bad profile so it has to be contoured and repaired before it is made public. The 65ft x 95 ft craft will take some time to take its original layout. The Indian Airlines has been approached as they have the expertise and understanding in reviving such old planes and keep it for exhibition. Bringing back the Dakota and putting it

for demonstration and as a testimony at Anand Bhavan will certainly be a fitting salutation to the ace pilot and former Chief Minister Biju Patnaik and to his heroic manoeuvre. Biju Patnaik was 32 when he skirted the Dutch with this Dakota and landed at a protem airfield in Jakarta. He then returned to Delhi with the two freedom fighters - Md Hatta and Sultan Sjahrir. The Indonesian government acknowledged his contribution by honouring Biju Babu with 'Bhumi Putra' title for his chivalry.



Anand Bhavan is a unique kind of Dedicatory. Since it has been assigned a legacy label, the Culture Department has left its original design in tact. Anand Bhavan has certainly added beauty to Odisha and the thousand-year old Cuttack. “My brother (Prem) and I have gifted our ancestral house to the state government for development of a museum, place of learning and library for the people,” Naveen Patnaik had told mediapersons after signing the gift deed in 2015 in the presence of his brother Prem and his nephew Arun. The gift deed said: “Anand Bhavan, being the karmabhoomi (workplace) and janmabhoomi (birthplace) of the great son of Odisha (Biju babu) endures the heirloom of his selfless and dedicated service to the people of Odisha, and for the intense love and affection of the people towards late Biju babu and his visions of a modern Odisha, the donors consider it expedient that the scheduled property be owned and enjoyed by the people of the state.”

A populist politician is always forgotten but a popular statesman will be remembered for decades. Late Biju Patnaik was a ‘Remarkable

Hero’ and a real ‘Son of The Soil’. Fruitfulness and prosperity never made him bigheaded. He remained as people’s leading light and ever appreciated by his followers, contemporaries and admirers as well. This is the ‘True Acknowledgment to the Leader of the Masses and for the Masses’. He was loved in life as well as in death. In his aftermath, however, it is Biju himself and not Kalinga whose name is often invoked for claiming a past of splendor, glory and pride in the state. The reason is not far to find. For, Biju was one of country’s rarest politicians who made formative contribution to public cause both in pre and post independence India. A freedom fighter, philanthropist, pilot, industrialist and politician apart he was man of the multitudes. Odisha has all along been identified as land of Jagannath, Biju Patnaik true to his personality, came to be another identity for the state from being local to global.

Subhrata Pattnaik, Cuttack.

ABSTRACT

“The sum total of all conditions, agencies and influences, which affects the development, growth, life and death of an organism, species or race is the environment”

Etymologically environment means surrounding. The term ‘environment’ is formed by two English words i.e. ‘environ’ and ‘ment’, meaning ‘encircle’ and ‘all-around’. It is the source of life on earth. Environment consists of a set of interacting spheres, some extended over

set up, hotels, dams and water reservoirs, urbanization and human habitation, digging of mines and lifting of excess ground water create a lot of environmental imbalance causing air pollution, water pollution, soil pollution and noise pollution. As a result, problems like global warming, which is the consequence of greenhouse effect caused by increased level of carbon dioxide, unusual floods and cyclones, desertification, depletion of natural resources like ozone layer caused by CFC(Chloro Fluro Carbons), acid rain and extinction of species occurs. Human health suffers a lot due to this entire



Health and Environment : A Keen Observation

Dr. Chittaranjan Mishra



the entire globe and others cover partially such as atmosphere, lithosphere, hydrosphere and biosphere. Men’s interaction with the environment to serve its need tempted him to exploit the nature ruthlessly, which weakens the restorative capacity of the environment. It not only eroded the quality of life but also threatens the very existence of life. M.K Gandhi, the father of the nation, has rightly said that “Natural resources are sufficient to fulfill human needs but not the greed’s” but with the growth of human civilization and in the name of development men’s impact on environment grew in scope and strength. Deforestation for industrial

unhealthy and hazardous ecosystem. The popular saying ‘health is wealth’ bears a great loss of its meaning due to lack of harmonious relation with the nature.

Climate is an important physical element of the nature, which is an indicator of the atmospheric condition of heat, moisture and circulation and affects all forms of life. Polluted environment factors are the root cause of a significant burden of death, disease and disability globally. They resume from poor water quality and access, vectors borne disease and air pollution to toxic chemical exposures, climate change and

degraded urban environments. The resulting impact estimated to cause over 25% of death and disease globally and 35% in regional variations. To avoid these entire curses on human life, affective action requires for moral commitment to sustainable development and active political action through national and international participation. This action should center around two objectives:-

1. Arresting negative objectives of further environmental degradation and prevention of environmental pollution.
2. The positive objective aimed at achieving sustainable development.

A keen observation of the causes of environmental pollution, climate change and its impact on human health and the positive actions to avoid human suffering will be discussed in this article.

Key words: - ecology, environment, green house, chlorofluorocarbons, sustainability, pollution, climate.

The environment has two components: living or biotic components and non-living or abiotic components. Both are interlinked and interdependent. Change is one of the unchangeable natures of the nature. Changes can take place in every hour in the nature. But the undesirable changes in the physical, chemical or biological characters of air, water, or land will be harmful to human and other life forms. Human beings are the only living organisms who interfere with the balance of the environment to fulfill their own needs. In the past, human beings were leading a harmonious life with the nature but with the advent of the modern technology they are exploiting more and more natural resources without taking proper care of the environment.

Agricultural lands are modified into hotels, residential buildings or industries. Villages are converted into towns and cities. Natural flow of the river water is blocked by dams to generate electricity. Forests are cut down to establish large-scale industries; mines are dug to feed the industries, ground water is lifted abundantly to fulfill the need of human beings and industries create a lot of environmental imbalance which invites the problems like environmental pollution (air, soil, water and noise pollution), global warming, unusual floods, cyclones, desertification, depletion of natural resources and extinction of species etc. The problem of pollution has become a major threat to the very existence of mankind on this earth. Environmental pollution is a global problem now.

Pollution

Pollution means an unfavorable alternation of our surroundings. It is the contamination of the natural environment which exists around us and helps in normal living. Any type of pollution in our natural surroundings and ecosystem causes insecurity, health disorders and discomfort in normal living. Pollutants are the substances of factors which cause adverse effect on the natural quality of any constituent of the environment which is wholly or partially a byproduct of man's action. According to the Environmental Protection Act 1986 of India "Environmental pollutants means any solid, liquid or gaseous substances present in such a concentration as may be or tend to be injurious to environment." Pollutant is something that is present in the wrong place, at the wrong time, in the wrong quality.

Types of pollutants

On the basis of the form pollutants are classified into three types. They are:-

- Solid pollutants- comprise polythene bags, metal cans, scrap metals, plastics, concrete asbestos fibers, rubber, glass, etc.
- Liquid Pollutants- detergents, solvents, pesticides, insecticides, herbicides, paints, petro chemicals, dyes,
- Gaseous pollutants- gases released from industries, power plants, automobiles, brick kiln and residential establishments. These comprise of oxides of nitrogen (NO, NO₂), Sulphur Compounds (SO₂, H₂S), Carbon Compounds (CO, CO₂), Ozone, Halogens (Chlorine, Bromide, Iodine, etc.) and Chlorofluorocarbons (CFCs), Benzopyrene (BAP), Volatile Organic Carbons (VOCs), etc.

These are primarily come from domestic wastes, industrial wastes, vehicular pollutants, hospital waste, etc. On the basis of their natural disposal nature the pollutants may be classified into biodegradable and non-biodegradable. Biodegradable pollutants create problems when their production exceeds the decomposition or disposal capacity e.g. sewage.

Classification of pollution

- Air pollution
- Noise pollution
- Water pollution
- Soil pollution
- Greenhouse effect and global warming
- Ozone layer depletion
- Eutrophication

Effect of Air pollution on human health

It has been rightly said that “Health is wealth.” Better health leads better life. Environmental pollution provides an unhealthy

atmosphere and makes human life miserable with a lot of health problems. Buying and selling of life (fresh air and purified water) or life trade is going to be a dangerous phenomenon of present day city life. Air pollution increased because of four major development activities such as: -

- Increasing traffic
- Growing cities
- Rapid economic development
- Industrialization

Carbon monoxide (CO) is produced when fossil fuel (coal, petrol and LPG) are burnt. It is a poisonous gas. It creates problem for oxygen transportation in the human blood. Inhaling carbon monoxide gives headache, nausea, vomiting and exposed to carbon monoxide creates mental confusion, visual disturbances, drowsiness, trouble in muscular coordination and ultimately unconsciousness, etc. It is not harmful for plant life.

Sulphur dioxide (SO₂) and sulphur trioxide (SO₃) are produced from coal burning and petroleum refinery factories. Inhalation of sulphur dioxide aggravated respiratory diseases like asthma, bronchitis and causes irritation of eye, function disorder in lungs and can even cause of death.

Nitric oxide (NO) and nitrogen dioxide (NO₂) are produced through manmade sources like burning of coal, running of motor vehicles, smoking of cigarettes and industrial activities. Presence of these pollutants in the air combines with the water vapors in the atmosphere causes acid rain and irritation in human lungs, inflammation of lungs followed by death.

Chlorofluorocarbons (CFC) are produced by the use of freons in refrigerators, air conditioners, cleaning solvent, propellants, and

deodorants as well as in fire extinguishing equipments. When it comes in contact with ultra violet ray it decomposes and produces chlorine gas. Chlorine hits ozone molecule and changes it into oxygen and causes depletion of ozone layer. As a result the dangerous ultra violet radiation enters into earth's biosphere which causes skin cancer and slows down the growth process of tissue.

Hydrocarbons pollutants are the compounds of carbon and hydrogen produces out of the consumption of petroleum, natural gases and coals which is one of the major causes of cancer. Lead is a metal which is present in some petroleum products used by human beings; lead batteries, paints, hair dye products etc. cause digestive problems of the children and can damage their nervous system.

Suspended particulate matter (SPM) or solid particles in the air in the form of smoke, dust and vapor enter into the lungs and causes respiratory problems and main source of hazy which reduces visibility of the polluted area.

Smog is a dangerous pollutant of present day urban regions. It is a combination of smoke and fog. It is produced out of the burning of large quantity of coals. It often stays for an extended period of time over dense populated cities. Cities like London, Los Angeles, Mexico, Athens, Beijing, and Hong Kong suffered a lot in the past. In our country the situation is alarming in big cities like Mumbai, Delhi, Kolkata, Chennai, and Kanpur etc. In 1987, Mumbai experienced smog for about ten days when sun was not seen in the Mumbai sky. The great smog of 1952 darkened the sky of London and killed approximately 4000 people and another 8000 in the following weeks and months.

Fly Ash is another major pollutant to the air. To meet the need of electricity for domestic and industrial consumption thermal power plants are established. 73 % of electricity in India is generated from thermal power plants and 90 % are coal based generation. More than 80 % power plants use bituminous coal which produces large quantity of fly ash. According to one estimate more than 200 million tons of fly ash is produced in India primarily by thermal power plants, cement plants, steel plants and railways. Air is severely polluted by fly ash and leads serious health problems like by entering into the lungs and causes irritation of eye, skin, nose, throat and respiratory tract. Long exposure to fly ash may cause bronchitis and lungs cancer.

Delhi is severely affected by this type of pollutants and it is disheartening to hear that Delhi, the national capital of the country, is being tagged as one of the most heavily polluted capital cities in the world. It is the world's worst city in terms of air pollution, with an unhealthy air quality index for the majority of the year. Thus, today, one of the biggest threats to the welfare of the people of Delhi and the city as a whole is pollution of various types such as air, noise, water, domestic waste, industrial waste, vehicular, hospital waste and solid waste pollution. It has been reported by the National Environmental Engineering Research Institute (NEERI) that everyday almost 8,000 metric tons of solid waste is being generated in Delhi and we also have the industrial hazardous and non-hazardous waste. On an average, everyday, the MCDs and the NDMC manage to clear about 5,000-5,500 metric tons of garbage. This results in the accumulation of more and more garbage in the city.

Pollution in Delhi: Facts and figures

- According to the Ambient Air Pollution (AAP) report for the year 2014, Delhi had PM 2.5 pollution levels, which is the highest in the world, followed by Beijing. This result was based on the monitoring of PM measurement of outdoor air pollution from almost 1,600 cities in 91 countries.
- The highest concentration of PM 2.5 form of air pollution is supposed to be a very serious matter and can lead to respiratory diseases and other health problems like lung cancer.
- According to the WHO, air pollution is the fifth largest killer in India.
- Carbon monoxide (CO), a dangerous gas emission, is around 6,000 microgram per cubic meter in Delhi, which is much above the safe level of 2,000 microgram per cubic meter.

- The level of nitrogen dioxide (NO₂) has also been increasing.
- According to the Ministry of Earth Sciences, Delhi's air quality index (AQI) is 121, which is described as "poor." The AQI is an index for reporting daily air quality, about how clean or polluted the air is.

As per the latest report of World Health Organization data, Kanpur has topped the list of the most polluted city in India. Faridabad is the second most polluted city, while Varanasi third. In the recent study held by WHO in 2018, it came to light that while Delhi has seen a marginal decline in level of pollution, the other cities such as Gaya, Patna, Lucknow, Agra, Mujafarbad, Srinagar in India have joined the other global cities with the highest levels of particulate matter (PM). About 14 Indian cities found their names among the top 15 most polluted cities in the world. The WHO's urban air quality database covers more than 4,300 cities across 108 countries and the ranking was based on the annual mean pollution levels for the year 2016.

Air pollution and their associated health hazards

Sl.No	Name of Pollution	Health Impacts
1	RSPM	Respiratory illness, including chronic bronchitis and asthma, heart disease, etc.
2	SPM	Pneumoconiosis, restrictive lung disease, asthma, cancer, etc.
3	NO ₂	Lung irritation, viral infection, air way resistance, chest tightness, etc.
4	SO ₂	Heart diseases, respiratory problems including pulmonary emphysema, cancer, eye burning, headache, etc.
5	Ozone	Impaired lung function, chest pains, coughing, irritation of eyes, nose, etc.
6	CO	Co poisoning cause cherry lips, unconsciousness, death by asphyxiation etc.
7	Lead	It causes decreased hemoglobin synthesis, anemia, damage the nervous and renal(kidney) system, etc.



surface water whereas the ground water polluted due to industrial seepage pits, refuse dumps, septic tanks, sewage channels, etc.

Sewage contains pathogens like bacteria, virus, protozoa, and worms and spread a number of epidemic diseases like cholera, typhoid, amoebiasis, jaundice etc. **Industrial waste** water contain heavy metals like mercury, arsenic, lead, cadmium etc. **Mercury** poisoning water produces crippling and often fatal diseases called Minamata disease (numbness of the limbs, lips and tongue, impairment of motor control, deafness and blurring of vision).

Excessive use of inorganic fertilizers often leads to accumulation of nitrates in water. When it enters

into the human body it converted to toxic nitrates by intestinal bacteria and combine to hemoglobin to form methaemoglobin. This impairs oxygen carrying capacity of blood and creates a disease methaemoglobinaemia with a symptom include damage to respiratory and vascular system, blue coloration of skin and even cancer.

Pesticides such as DDT, BHC (benzene hexa chloride), parathion, aldrin, dieldrin, endrin etc, when enters into fatty tissues of man and animals through the food chain increases in successive trophic level. Petroleum products and oil discharge to sea water causes oxygen depletion in water and contaminated with hydrocarbons of oil affected the marine food chain. Consumption of such contaminated sea foods causes human cancer.

Effect of water pollution on human health

Life without water is impossible. So it has been rightly said that the other name of water is life. It has its self-cleansing action but there is a limit to it. After every use of water for various purposes such as drinking, cooking, bathing, washing, irrigation and industrial use it becomes polluted. Surface water contains small amount of suspended particles, organic, inorganic materials and number of microorganisms (bacteria, fungi, algae, viruses, protozoans) and higher organisms. When the concentrations of these organisms increased in the water it becomes polluted. Most of water pollution is due to human activities. Domestic wastes and sewage, industrial effluents, fertilizers, pesticides, insecticides, thermal pollution, radioactive wastes, oil pollutes the

Water pollution and their associated health hazards

Sl. No.	Name of pollution	Health Impacts
1	Sewage pollutant	Cholera, typhoid, amoebiasis, jaundice etc.
2	Industrial effluents	Numbness of the limbs, lips and tongue, impairment of motor control, deafness and blurring of vision.
3	Agricultural discharges	Methaemoglobinaemia (damage to respiratory and vascular system, blue coloration of the skin and even cancer).
4	Oil pollution (hydrocarbon)	Cancer
5	Lead poisoning water	Damage of liver and kidney, loss of appetite, anemia, reduction in hemoglobin formation, mental retardation, abdominal pain, gradual paralysis of the muscles etc.
6	Fluoride containing water	Skeletal Fluorosis (Hardening of bones and stiffening of bone joints), deformity of teeth, knock-knee disease (joint pains and outward bending of legs from knee) etc.
7	Cadmium pollution (consumption of rice affected with cadmium)	Itai- In Japan (pain in bone and lead to liver and lungs cancer).
8	Pesticides, insecticides, herbicides	Biomagnification (increases in successive trophic level), cancer etc.

Soil pollution and its impacts on human health

Excess use of fertilizers, insecticides and pesticides, solid waste disposal, deforestation are the main causes of soil pollution and decrease in productivity of crops. It is calculated that nearly one – fourth of the fertilizers is not used by the crop plants and hence leached down and became the cause of ground water pollution. Presence of excess pesticides in the soil and solid wastes can cause serious health hazards.

Sound pollution and health hazards

Loudness of sound is measured in a unit called decibel (db). All sound is not a noise. A quiet place is represented by 20db, a library by 40 db, radio broadcast by 60 db, a motor cycle

by 100 db. Sound that surpasses 100 db is unpleasant and termed as noise pollution and 120 db sound is harmful to human health. Sound produced by factories and industries, transport modes, in social functions, electrical gadgets etc. are the main cause behind the noise pollution. Its direct harmful effect is to the ear and causes temporary or permanent loss of hearing. It retards work efficiency and can cause nervous disorder and brain damage, induces irritation, annoyance, sleeplessness or insomnia, hypertension and stomach ulcer, sweating, nausea, fatigue, increase of cholesterol level causing possible heart attack.

Greenhouse effect and global warming

Rise of carbon dioxide in the atmosphere by modern industrial development the greenhouse

effect is intensified and increase in atmospheric concentration of other greenhouse gases like chlorofluoro carbon (freons), nitrous oxide and methane due to human activities may also aggravate the greenhouse effect. As a result there would be a rise of 3 degree Celsius surface temperature for doubling of carbon dioxide concentration in the atmosphere. It has been predicted that earth's temperature would increase by 1.5 to 4.5 degree Celsius by the year 2030 if the burning of fossil fuel will not be controlled. The abnormal rise of temperature in the polar region lead to melting of ice caps and increase the water level of ocean by 200 feet and it is also predicted that the densely populated coastal cities from Shanghai to San Francisco would submerge. There would be a great climatic change due to greenhouse effect and global warming. More cyclonic storms and hurricanes will occur in the tropical oceans, irregular rain fall will create untimed flood and will convert some parts of the earth into desert by stopping the annual monsoon. Human habitat and human health will badly be affected by greenhouse effect and global warming.

Eutrophication

Nutrients especially nitrogen and phosphorus are vital for life in the rivers and sea. But the excessive nutrients can seriously disturb the functioning of ecosystems especially in lakes, ponds, slowly flowing part of rivers and ultimately the sea. Eutrophic means nutrient rich and eutrophication literally means enrichment with nutrients. Inorganic nutrients released from decomposed sewage and fertilizers from agricultural fields flow in to different water bodies cause algae to grow in abundance and sometimes the water surface gets entirely covered with algae and appears green which promotes a large population of decomposers like bacteria and fungi. Water becomes polluted and unsuitable for use.

Ozone depletion:- Ozone is present in the atmosphere as ozone layer at 10 to 50 km. above the earth's surface and observes the dangerous ultra violet radiation from the sun like a shield to the living beings on the earth. Depletion of ozone layer caused by air pollution expose the living creatures to direct contact with the ultra violet radiation. Skin cancer, cataract, sunburn and weakening of immune system are caused by long exposure to ultras violet radiation.

OTHER POLLUTIONS AND ITS RELATED HEALTH HAZARDS

Sl. No.	Area of pollution	Important pollutants	Impact on health
1	Soil	<ul style="list-style-type: none"> • Use of Fertilizer, pesticides, insecticides • solid waste disposal and deforestation etc. 	<ul style="list-style-type: none"> • Loss of fertility of earth and decrease of food production. • Ground water pollution due to leaching of fertilizers. • Contamination of foods by the use of pesticides and insecticides.

2	Sound or noise	Loudness of sound more than 100 decibel(db)	<ul style="list-style-type: none"> • Temporary and permanent loss of hearing • Brain damage • Nervous disorder • Irritation • Annoyance • Sleeplessness or insomnia • Hypertension • Stomach ulcer • Sweating • Nausea • Fatigue • Increase of cholesterol level and causes heart attack
3	Greenhouse effect	Rise of carbon dioxide in the air	<ul style="list-style-type: none"> • Abnormal rising of polar temperature and melting of snow • Increasing of water level in the sea • Irregular rainfall and untimely flood and cyclone
4	eutrophication	Nutrient over rich (nitrogen and phosphorus in water)	<ul style="list-style-type: none"> • Growth of algae in water with decomposers and fungi
5	Ozone depletion	Air pollution	<ul style="list-style-type: none"> • Skin cancer • Cataract • Sunburn • Weakening of immune system

Sustainable development and Hindu philosophy

Sustainable development means the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. UNO

publications define it as “improving the quality of human life while living within the carrying capacity of the supporting eco system.”

Hinduism has always been an environmentally sensitive philosophy. No religion, perhaps, lays as much emphasis on environmental

ethics as Hinduism. It contains the earliest messages for preservation of environment and ecological balance. Nature, or Earth, has never been considered a hostile element to be conquered or dominated. In fact, man is forbidden from exploiting nature. He is taught to live in harmony with nature and recognize that divinity prevails in all elements, including plants and animals. According to M.K. Gandhi, the nature has sufficient resources to fulfill the need of human beings but not the greed. It is so because the Divine reality is present as Prana /Shakti or as energy and power, in every electron, particle, atom, and cell and in every manifestation of matter. It is its very fabric. Just like the sparks of a fire are of the same essence as the fire they were issued forth from, so is the entire creation, of the same essence as the Divine. The Rishis of the past have always had a great respect for nature. Theirs was not a superstitious primitive theology. They perceived that all material manifestations are a shadow of the spiritual. The Bhagavad Gita advises us not try to change the environment, improve it, or wrestle with it. If it seems hostile at times tolerate it. Ecology is an inherent part of a spiritual world view in Hinduism. So ancient seers of India were preferred to live inside the forest in the lap of the nature to maintain an eco-friendly and a hygienic life. Likewise tribes are maintained such an eco-friendly life inside the forest, which provides them hygienic and healthy living with affluent oxygen and livelihood.

Hinduism contains numerous references to the worship of the divine in nature in its *Vedas*, *Upanishads*, *Puranas*, *Sutras* and its other sacred texts. Millions of Hindus recite Sanskrit *mantras* daily to revere their rivers, mountains, trees, animals and the earth. The earth can be seen as a manifestation of the goddess, and must be treated with respect. In Atharva Veda where the *Prithvi Sukta* says, “Earth is my mother, I am her son”. The Rig Veda (1.6.3)

states: - by the first rays of the rising sun, the universe is stirred; the shining gold is sprinkled on the smiling buds of rose; the fragrant air is filled with sweet melodies of singing birds, the dawn is the dream of God’s creative fancy. So Hindus worship the Sun God and offers water after their bath, by this they extended their helping hand and cooperate in the evaporation act of the Sun God.

In the *Mahabharat*, it is described about the worship of Gobarddhan Giri or Gobarddhan (Go + Barddhan= helpful for the growth of cattle capital) Mountain as a token of obligation by Lord Srikrishna. Likewise the nearby mountains of Hindu villages are worshiped every year by the Hindus as it provides them wood, leave, fruits, forest products, grass and leaves for cattle rearing and its role for rain. A well-known Hindu teaching “*Tain tyakten bhunjitha*” has been translated, “Take what you need for your sustenance without a sense of entitlement or ownership and sacrifice for others.” Enjoy the natural resources with renunciation. Likewise the tribes of India use to cultivate the Rabi crops which needs little water to grow and in the time of harvesting they left a portion of crops of the field for wild animals to eat. *Ayurveda* (Ayu+Veda), the science of life, is a complete health and medicine system based on nature and its regenerating forces. People should make aware about the medicinal value of different plants, animals and objects so that they will come forward to preserve all these for future generation.

World’s indigenous religions have three features in common: they are nature-venerating, seeing nature as a manifestation of Divinity; they are polytheistic and recognize many Gods, many Manifestations; they recognize the Goddess, the female aspect of Divinity as well as the male. The Indian tradition is strongly Cosmo centric, where man lives as part of a system in which everything is related to everything else. Creation and destruction take place simultaneously. Materials

and energy move from organism to organism. Matter is arranged in precise order in every organism, but in death this order is followed by disorder: cycling of materials through organisms brings order once again. But today, rapidly drifting from our traditions of sustainable use and coexistence, we seem to be entering a man-centered world that implies the decimation of nature.

This materialist paradigm has dominated the modern world for last few centuries. Western philosophy, on the other hand, treats man and nature as separate entities believing that the former has the prerogative to exploit the latter. Thomas Carlyle in Signs of the Times says, “We war with rude nature; and by our restless engines, come off victorious and loaded with spoils.” So the tradition of maintaining sacred groves and sacred trees vanished from most countries, mainly due to the rise of dogmatic religions believing on monotheism or which advocated faith in one god and were explicitly for the eradication of ‘pagan’ practices. The underlying theme in Semitic religions is that of a chosen people who have been divinely granted ownership of the earth and all living things, and permission to exploit them. The Semitic perception that humans have more “dignity” than animals has gone a long way into the enormous decimation and extinction of non-human life on our planet not to mention the massacre of non-believing human beings. Hindu philosophy has always had a humane and dignified view of the sacredness of all life, and that humans are but one link in the symbiotic chain of life and consciousness.

The current deplorable environmental crisis demands a spiritual response. A fundamental reorientation of human consciousness, accompanied by action that is born out of inner commitment, is very much needed. One of the measures that could help a great deal to fulfill this need is to regenerate and rejuvenate basic values

of Naturalism or nature worship and propagate them.

Preventive measures:-

“If conservation of natural resources goes wrong, nothing else will go right.”

M.S.Swaminathan.

Preventive methods may be classified in to three categories such as:- scientific, legal and cultural. Scientific planning by the scientists and exports to preserve, protect and promotion of healthy environment, strong legal system should be developed by the regional, state, national and international government agencies to protect and preserve the environment and enactment of laws to punish the deviators. Public involvement should be increased by propagating philosophical, religious and cultural values of the elements of nature.

Following preventive measures should be taken to control environmental pollution

- By public awareness and education
- By enactment of laws
- Protection of biodiversity of the world
- The establishment of co-ordination between government, non-government organizations and individuals to work for the protection of environment.
- Careful assessment of the impact of the development plans on environment.
- Monitoring of ongoing plans for the quality of the environment.
- Helping in the formulation of National and Regional policies.
- Spreading of environmental education at different levels.
- Development of long term and short term plans for the conservation of environment.
- Conduct of research in various fields of environment.

- Suggestion of guidelines to the government for the improvement of the quality of environment.
- Introduction of Proper road and traffic management.
- Plantation of large quantity of trees and avoid deforestation.
- Use of fuel efficient engines and installation of pollution control equipment in motor vehicles.
- Stress on Sewage treatment.
- Encouragement for use of organic fertilizer.
- Proper solid waste management.
- Recycling of wastes.
- Importance on sustainable development etc.
- Awareness for prohibition of tyre burning, road blocking by cutting of trees and destruction of public property.
- Propagation of eco-friendly Indian culture and philosophy

Conclusion:-

We all will agree with this that human being is the only creature of this universe that breaks most of the natural laws of the nature. In the name of development and civilization it exploits, pollutes and destroys the environment. We can't stop development activities but in the name of development we should not deprive our future generation from their right of living. The technological advancement and speedy development since India's Independence has come at a great environmental cost. According to the global Environment Performance Index (EPI) 2018, India is ranked at 177 with an EPI of 30.57. Man as a social and rational partner in environmental action should involve itself in the following activities for preservation, development and promotion of overall environment.

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**“Hail Thee, O’ preceptor,
You are the embodiment of the
Brahma, Vishnu & Maheswar : The Trinity.
You are the Parambrahma-The non
differentiate Supreme Spirit.
To you, all my obeisance & surrender.”**

Introduction:

In the whole of universal creation, man is held as the best of it. As because he has been striving to express his minutest feelings of mind through various means from the very beginning of the civilization. Hence, literature, music, painting, fine arts etc have taken definite shape and form

World is full of sounds i.e ‘nada’. In the human heart the abounding sentiments only get stretched to the voice and when this voice gets robustness it manifests as song in a broader sense, the muse. A thesis on music, ‘Sangeeta Ratnakar’ says thus as the source of ‘nada’ or sound, when innermost self gets impatient to express, it inspires the mind, the mind to fire in the body, fire to the air and this air creates power. This power strikes the permanent knot. This air makes sound through five outlets i.e to naval, heart, throat, head and mouth. Thus created sound or tone manifests tunes which we call music. In the epic “Shreemad Bhagabata” the Lord says “O, Narad ! I don’t



The Role of Rhythm, Rhythmic Instrument and the Instrumentalist in the realm of Music : Hindustani Classical etc.

Sushil Kumar Patnaik



through human effort to bring glorification to its existence. Notwithstanding this the supplication for truth-prosperity and beauty i.e “satya, shiba, sundar” has been the main force to his supreme contemplative emotional impetus. That which paves the way to realization of the much sought after four aims of human life i.e righteousness, property, lust and salvation is propounded in our philosophy. Hence, the seer announces ‘it is the art which emancipates, i.e. ‘sa kala ja bimuktaye’. Therefore, it is quite obvious to behold the art spreading itself in atoms, matters throbbing and still as well as flora and fauna.

dwell in Vaikuntha or paradise, neither in the hearts of Yogis, but I do reside there where my devotees sing to my praises.”

It is also said, Brahma the creator creates musical instruments from “Rig Vedas”, dramatic representation from “Yajur Veda”, the essence of poetic sentiments from “Sama Veda” which constituted authoritative treatise of music, the musicology came into being. This scripture bears the elements of panacea to all sorrows, distress, despair, grief and pangs of separation. Thus bliss supreme i.e Brahmanada is finally obtained.

Hence, the player of musical instruments supplicates with this - the sentimental supremacy which is manifested in dance, specialty of dance with musical instruments and instruments adhering to beats i.e. 'Tabla'. Therefore I salute to beats i.e music supreme everyday.

Various opinions are floated to the origins of Tabla. It is said, "the threesome elements, i.e song beating instruments and the dance and their intermingling constitutes the music perfect. The presiding deity of music is Mother Saraswati, the goddess of learning.

A rare devotee, the saint RamaKrishna Paramhansa pronounced the greatness of music with the following words. "Blessed the pious soul who drinks the nectar of sweet musical notes which have been churned out of the Vedas, which removes impurities of mind, which is a sovereign remedy to cure all diseases of worldly existence and can transform man into a better citizen. It is priceless treasure." Needless to say, music therapy is in vogue now a days in native as well as foreign countries.

Teacher- taught tradition:

The pious relationship of preceptor-disciple emanates in this life and life after. As we know this bonding of teacher-pupil had been regarded eternally sacred and the pupil had been taking it not only customary but duty bound to surrender himself to his Guru and was mentally prepared to render any service to him. This father and son relationship is found waning today for which practice and penance to reach perfection in music is being seriously thwarted. This state of affairs will spell doom if it is left to continue. Now let us come to musical instruments.

These are of 4 categories: i.e

- a) Tat (Instruments with strings)- veena, sitar, sarangi, sarod, and behela etc.
- b) Sushir (instruments played by putting air)- banshee, flute, Sehnai, Mahuree, cornet, clarionet etc.
- c) Ghana (instruments made of metals)- ghanta, manjira and jhanja.
- d) Abanaddha (instruments wrapped with hydes)- tabla, dholak, mrudanga, pakhouja, mardala, khanjani etc.

Of all these instruments the prime importance is given to Tabla. It is said, "without Tabla no music becomes perfect or established. This word has the verbal root "tal" after having the suffix "ghajna" becomes tabla. Tal denotes installation. That by which music is installed or positioned is Tal. The time used in music is measured by Tal. Our ancient music system contained hundreds of Tals. But as time passed on now only 10-12 are being used and practised.

How Tabla Originated ?

Indian classical music is divided into 2 schools. One is North Indian music or Hindustani music and the other is South Indian music or Karnatic music. In Hindustani music tabla and pakhouja are taken as rhythmic instruments. But the prominence is given to tabla. Some exponent mathematicians of tabla scripture like Dr. Lakshmi Narayan Garg is of the opinion that both tabla and harmonium are foreign instruments. As is known the Sedang instrument of China invoked Europeans to make harmonium in 1810 A.D. which found its way to India afterwards. Dr. Garg says the advent of tabla is of the same period which was then called "Atabal". The French name tabal is now tabla in Hindustani.

The opinion that tabla instrument originated from splitting pakhauja into 2 has been widely accepted until Jogmaya Shukla and Kishen Maharaj put a dispute to it as only wishful. But Thakur Jaydev Singh holds that tabla was in vogue in ancient India and so this should be accepted as only Indian even though tabla is a derivation of tabal. Again the professor of Abannadha Vadya of Indian art and music university of khairagarh, Pandit Harishchandra Shreevastav propounds that the origin of tabla may be of more than 350 years hence which was of more useful to Kheyal rendering and to playing of sitar. Later on it was accepted as an unitary instrument and became popular. According to him tabla though bears the influence of pakhauja, has become one in itself.

Another view testifies the origin of tabla from a beat note called "Samval" which has a dual note of nagara (drum). A group of musicians provide a connotation for tabla as "tab- bhi-bola" which means tabla came into being after splitting of an abaannadha instrument. Many other musicians are of opinion that since the famous pakhauja player Ustad Sudhir Khan Dhadi is regarded as the initiator of tabla . it is very likely that tabla came from splitting of pakhauja. With Bhagban Das's opinion one tends to believe in this theory. After all now as it stands more research in this matter has become a challenge to musicians young and enthusiastic.

Voice (Vanee) of the tabla: a few instances-

a) 10 note sequence are created for tabla, i.e (with left hand) (1) ka- ke- kat (2) ge (3) ghe. (With right hand) (4) ta bana (5) tin (6) tun or din (7) te (8) te or re (with both hands) (9) ta+ ge= dhaa (10) tin + ghe =dhin other dual notes sequences are -kredhe tete, kredhaan, kraan, dhaa kede, treke, dhere kete, dinged dina etc.

te te these 2 notes which are being played by the finger on tabla also play 'tere' with the same finger and at the same surface- place. But how this occurs ? This is done only by the trick of hand which needs constant practice. Te Te is by giving weight and Te Re by touching lightly and rapidly. The case is exactly with TA and NA. These are the special knowledge of teacher's school which is learnt with firm attendance to the service of the teacher. Likewise NA is a negative note while TA is a positive note for which it is in Dhaa, TA is being used. So it is "GE + TA = DHAA and TING + GHA = DHING.

Importance of Tal (beats) in Tabla:

In Kheyal playing pakhauja has been replaced with tabla for convenience. Therefore with the 'bol' of tabla trital, jhamptal, rupak, ektal, dadra and kahrwa tals are formulated. "Sabda Kalpa drum", the famous Lexicon pronounces:" origins of musical instruments are from Tal without which songs are bereft of beauty or splendor.

TA is known as male and LA is known as female. TA emanated from Lord Shiva's "Tandav" dance and LA is from mother Parvati's graceful motion.

Role of theka (stress of the tip of the finger) in music:

"Theka" of every tal is not appropriate note for every song as it is not suitable for invocation of proper emotional content and flavor. Therefore theka is to be chosen while listening to the music. Hence the beat notes of dhumali, trital, adha and kaharwa can be changed at the time of playing. The player has to choose the variation by himself to the tunes of song or music. This is important and more pertaining to the song sequences in cinema.

Schools (Gharana) of Abannadha instruments with special variations:

After introduction of tabla as a musical instrument different schools established different modes or patterns in playing. We may not agree to the opinion that tabla has been introduced by Ustad Sudhar Khan Dhadi but that he is the creator of Delhi school is indisputable.

- a) The notes like dha ti, te te. Ti dha, tirkir are special. With this gharana the index finger with the middle one are more used in this gharana. Peskar, rela, kayda patterns are more important in this school.
- b) The Ajrada gharana: the disciples of Ustad Sitab Khan, the brothers Kallu Khan & Miru Khan were residing in the village 'Ajrada' of the district of Meerut. Ustad Mohammad Bux of their generation was the famous tabla player. His son Mian Chand Khan and grandson Ustad Kale Khan were two exponent players of this gharana in which Dugi, the left part of Tabla is prominent.
- c) The Punjab gharana: by stopping open note beats of pakhuja, a new style of playing was introduced in this gharana. Ustad Allar Khan Saheb is the famous player of this gharana.
- d) **Banaras** gharana: the 'bol' is open and stressful in this gharanas. The influence of pakhuja is quite evident here. These open playing styles and stressful beats are the hallmark of this gharana. Pandit Kanthe Maharaj, Pt. Kishen Maharaj are famous tabla players of this gharana.
- e) Lucknow gharana: this school is found being quite impacted by the Banaras gharana with some little variations. Ustad

Abid Hussain, Ustad Mune Khan, Ustad Ujid Hussain are considered as the master tabla players of this gharana.

- f) Farukkabad gharana: An interesting story has been floated which highlighted the speciality of this gharana. When the daughter of Ustad Bakshu Khan was given in marriage to Ustad Vilayat Ali Khan of Farukkabad, he passed some tricks of this gharana to his son in laws as dowry. Ustad, therefore, brought the name of Farukkabad school to be known and counted. Ustad Sallari Khan and Ustad Imam Bux were the prominent players of this gharana.

Impact and Influence of 'Taal' in music:

It is quite evident that 'taal' do play a pivotal role in every kind of music oral or instrumental. Singers, instrumental players and dancers positively feel the essentiality of taal.

This taal is vital to our body or the very life. Take for example, our heart. Prescribed rate of its vibration is 72 times per minute. Any disorder less or more in it spells danger and heart trouble starts to our serious concern which lands us in expensive hospitals. Unstoppable serious trouble in restoring this taal to order is sure to bring closure to the chapter of our lives. This is also related to blood circulation in our body very much. Any mistake in this taal causes dislocation of limbs and failure to achieve our goal. In nature this taal is better found in sunrise and sunset. What is music ? It is either song with rhythm or rhythm with dance. But dance with song without rhythm can't be noted as music the same is with song without rhythm which does not attract spectators or listeners. Again neither the singer nor the dancer will be enthused without rhythm accompaniment.

Therefore, the main source of inspiration lies with the rhythm. Taal is regarded as father and tune is regarded as mother. For example- the boatman ferrying his boat in a full flooded river controls and regulates the course by himself. Any mistake may cause trouble. The same role is played by the rhythm player in music.

Importance as well as prominence of rhythm is also recognized in our national level. When statesman or great patriot dies our A.I.R and Doordarshan stops all kinds of rhythm in cultural programmes. Sitar, flute, violin or Sarangi are played without rhythm and Bhajanas recited likewise. This unmistakably proves that rhythm is vital force of all kinds of music without which music is lifeless and dull. We should not forget the role of bugle playing with drum beating at the time of war, soldiers and student- cadets do march with drum beats.

Peculiarity of Tal in Odissi song and dance:

Odissi form of either song or dance has a different tenor than that of Hindustani or Karnatic. The Taal or rhythmic notes in this system is not only special but quite excellent. As of the subtlety in Odissi dance and emotional flavor in songs the Taal is full of emotions along with the meter. The role of theka or stress of the tip of finger in rhythm accompaniment in Odissi creates such thrill so as makes one feel the dancing footsteps of the dancers as if 'radha' going to collect water from Yamuna river with a pitcher.

Specialty of Taal in Odissi:

These are the mostly used Taal in Odishi, such as ektali, aadital, jatital, sariman, kuduka, ata, jhampa, mathaa, tripata, rupaka and khemata.

In this 'taals' suffixing elements of 'anashaa', 'ukuta', 'dharana', 'bhaga or anga', 'chhanda', 'muktai', and 'maara' etc have their

own usage. Some examples of the notations in the Odissi 'taal': Taal:

- 1) **'Ektaali'** (kaharwa) : 'matra'-4, 'bhaga'-1, 'taali'-1, gap (phanka)- nil, chhanda- 4/4/ 'dharana', (theke)- ta, - tin, na terekete, taktini/ ta
- 2) **'Khemata' (Dadra)** : 'matra'-6, 'bhaga'-2, 'taali'-1, khali-1 (of 4 matras), chhanda-3+3 'dharana' - (theke)- dhaa dhina kitaa/ naa tinaa kitaa / dha
- 3) **'Tripata' (Rupaka)** : 'matra'-7, 'bhaga'-3, 'taali'-3, khali (phanka)- nil, chhanda-3+3 'dharana', (theke)- dhei tathin dak/ tathin dak/ tathin dak/ dhei
- 4) **Jhampa (Jhamptaal)** : 'matra'-10, 'bhaga'-4, 'taali'-3 (1+3+8), khali-6, chhanda-2+3+2+3 'dharana', (theke)- dhati Naam/ dhag dhati Naam/ naati naam/ dhagdhatinaam/dha
- 5) **Kuduka (chautal)** : 'matra'-12, 'bhaga'-6, 'taali'-4(1,5,9,11), khali- 2 (3,7), chhanda-2 + 2+2+2+2+2, 'dharana' (theke)- dha kadtak/ tin daa/ kadtak dhaa/ tin daa/ kadtak dhinaa/ kita tak/ dha
- 6) **Adataali** : 'matra'-14, 'bhaga'-4, 'taali'-3 (1,5,12), khali -1 (8), chhanda-4+3+4+3 'dharana'(theke)- dhaa dhaa dhina/ dhaa dhi na/ Naa naa ti naa/ dha dhi naa/dha
- 7) **Aditaala (Tintaal)** : 'matra'-16, 'bhaga'-4, 'taali'-3 (1,5,13), khali- 9, chhanda-4+4+4+4,

'dharana'(tehka):

dha dhi naa kitaa dhini/ dhaa dhi naa kita dhini/ naa tina kitaa tini/ taa dhina kita dhini/ dhaa

Hence, likewise above Taals of Rupaka, Mathaa, Jati and Sarimaan etc are of self contained notes.

Role of rhythm player in music:

The sentimental sensibility is the essence of a song recital. One may become a teacher through practice. But with practice it is not possible to express inherent sentimental sensibility in song recitals. Here comes the rhythm player in handy. If the rhythm player fails to cope with the Taal or put faulty notes to the tunes the singer either fails or likely to do so in his rendering. Then the whole fabric of music becomes jumbled up and loose proper purpose. Therefore, in case of song recital the rhythm player acts as the guide and milestone to the songster, a beacon light as if to the seafarer. But then, alas ! The player of the rhythm always remains in shadows and the song or other instruments player becomes hallowed.

Research design and method of study :

The study is to be taken up on mentally retarded children from the open learning systems -a voluntary organization dedicated to the cause of children. A survey method has been used. Empirical analysis will be made on data of musical rhythm on mentally retarded children, administered to them regularly. The interview schedule was recorded for each of the respondents. Observation of the retarded children by closest persons like parents, music teachers, class teachers and close attendants are to be taken into consideration. The changes in mood, activities, state of mind, play, response and other

types of behavior are to be observed closely. These constitute the primary data.

Data are also collected secondary sources. The secondary sources of data are the available published books on impact on musical rhythm on mentally retarded children. Data from primary sources are also collected through survey research where the techniques of interview and schedule are to be used.

Area of Study and Sample Coverage:

The study has been confined to mentally retarded children undertaking studies at Open Learning systems, Chandrasekharpur, Bhubaneswar.

Interview Schedule:

The interview schedule is the primary method for eliciting information on mental and the response to musical retarded children graded properly and the response to musical rhythm on their behavior, attentiveness, interest, memory.

Data analysis:

After collection of data, an elaborate code is to be prepared and the data are to be posted in the code sheet. Then the data will be tabulated and analyzed.

Conclusion:

Tabla is such a rhythm playing instrument in which the subtleties of 'uthan', 'peskar', 'tukuda', 'kayda', 'tripalli', 'chaupalli' of classical music are played with aplomb as well as with light, folk, pop songs, cinematic and western mode of songs. The sound of running train, horse hooves while riding, train passing through tunnel and the tunes of seven accents or notes of musical scale etc are being played with effect in tabla now a days. Even placing and playing 12 tablas at a time to the tune

has become possible. If dhaa dhin can be measured to the frequency of voice, then like harmonium playing of tabla would be facilitating.

Our musical tradition is not only great but it has the legacy of many devotees of music and song like Tulsi Das, Mira Bai, Sur Das, Thyagraj, Nandanaar Purandar Das, Hari Das, Dikshitar, Bule Shah, Shah Abdul Latif. Their time honoured song renderings have crossed all boundaries of caste and creed and created such melodious outpourings of human heart that these enthrall millions till today. The declaration “Basudheiba Kutumbakam” i.e “Whole earth is one family” that emanates from this glorious tradition may guide us to acquire a much wider perspective in music as well as rhythmic presentations. Let the player

of rhythm always stand steadfast to make all musicians get rid of the fear of Taal.

**“ Let all be happy,
All be free from diseases,
All see to the gentle side of things.
Let there be no sorrow or sufferings.**

**Om ! Shantih, Shantih, Shantih,
Let all peace prevails.”.**

Sushil Kumar Patnaik, Head of Department of Music,
Rama Devi Women's University, Bhubaneswar.

God Never Looks to Caste or Sect

Er. Raghunath Patra

Jagannath Cult spreads Odia Conscience
and sole walk of life in humanism
It is not a sect for doctrine, belief
but preaches brotherhood, Cultural syncretism

By fancies of distribution, dislike of doctrines
Our society has been intersected to sections
but Jagannath Cult sustains Compositions
through values, traditions, divine pastimes.

In cultural pluralism Jagannath Cult
provides us a divine character
to unify humanism as a whole
and aspiration to common people ever.

Culture is society's value and norms
includes knowledge, belief, tradition
transmitted to one generation to other
through social learning and observation.

Odias have their origin and identity
in the compositeness of Jagannath Cult
Although inherent values differ from one another
in wide sphere all collapse and melt.

Discriminations lag behind this cult
'Tribal' plays vital role in car festival
God comes out for devotees outside
leaving 'Ratna Simhasan', what a marvel !

'Hindu-Muslim' division and restoration
has been suffocated in devotee, 'Salbeg'

For a muslim devotee Car lulls
where orthodoxy and dominance lags.

God accepted Dasia's Coconut
stretching his hands with glee
God never looks to the caste or sect
He looks to bonafide devotion, see.

Leaving sacred pedestal, as soldiers come out.
'Kanchi-Vijay' exhibits relation 'Man and God'
Helped a devoted King in the battle
From Milk-maid "Manik" took curd.

Cult of Jagannath, a saga of sublime devotion
great synchronism of myths and legends
It gives Odia's ethnic value and identity
Organised community of supernal existence.

Saiva, Shakta, Vaishnav, Ganapatya, Saura
Satisfied, take Mahaprasad freely all
No discrimination of Caste, Sect, Creed
Dualism merges with monotheism goal.

Poet is lucky to be born in Srikshetra
avails His celestial glance ever
beholds rituals every now and then
as affectionate father, what more !!

Er. Raghunath Patra, Brundaban Dham, Lokanath Road,
Patnahat Sahi Chhak, Puri-752001.

The State Andhra Pradesh has always been pioneered in the fresh water fish production in the country mostly due to the contribution of 3 districts i.e. East Godavari, West Godavari and Nellore. Bhimaboram, the nerve centre of fresh water pisciculture in Andhra Pradesh belongs to West Godavari District which plays a very pivotal role in augmentation of fish production in Andhra Pradesh. The blackish soil texture and voluminous water bodies of that area have been immensely helpful to boost the fish production level in their State. The infrastructural developments, culture practices of species diversification, feed and

In spite of that persistent efforts from the Fisheries Department have enabled the fish Farmers of our state to make their identity in the fish production sector at national level. The centrally sponsored scheme like RKVY (Rashtriya Krishi Vikash Yojana) and Blue Revolution, MGNREGS and State Scheme like MPY have provided enormous scope for the farmers for the horizontal development in fisheries sector. Other state schemes like MBY (Matsyajibi Basagraha Yojana), CAE (Commercial Agro Enterprises) etc. have substantially increased the infrastructural development of the fishermen. The



Pisciculture in Odisha and Andhra Pradesh : A comparative study

Sangram Keshari Kar



fertilizer management and above all the adoption of modern technology with Better Management Practices (BMP) are the basic landmarks of the socio-economic development of the fish farmers of Bhimaboram in Andhra Pradesh.

On the contrary the invariable use of Mash feed instead of Pelleted feed/ Formulated Feed with extensive type of culture practices most farmers of our state have not given ample scope to stand at par with Fish Farmers of Andhra Pradesh. In addition to that mostly small seasonal water bodies have been proved scourge to the Fish Farmers of our state.

prime objective of the department is to increase the fish production level upto 5MT/HA by 2020 by adopting modern technical know how. Recently the intervention of "World Fish" to promote Mola (Mahuruli) culture and GIFT (Genetically Improved Farm Tilapia) and carpintification programme have augmented the fish production of Odisha drastically.

Apart from that, the departmental officers have left no stone unturned through their proactive approach to instil the idea of intensive culture with zero size 100gms-250gms of seed stocking to boost the fish production. Even the GP tanks are

being leased out in favour of interested WSHG for scientific pisciculture which is a hallmark female empowerment involving them in fisheries sector.

Assessment of Culture Practice:

Sl. No.	Item	In Andhra Pradesh	In Odisha
1.	Size of the Tank with Communication	Most of the tanks are above 5 Ha with good communication facility. Almost all perennial tanks.	Major chunk of tanks for pisciculture below 2 Ha within accessible area and most of the tanks are seasonal.
2.	Infrastructural developments	In each Pisciculture project there is a watchman shed or feed Godown and electric facility and provided with aerator.	Most of the projects are without shed and without electricity facility.
3.	Pre-stocking management	Pre-stocking management in the big fish culture projects seems to be very normal even no pre-stocking manuring is done.	Pre-stocking management in the fish culture project in Odisha has an important role and most of the projects are dried up in summer.
4.	Post-stocking management	The Post-stocking management practices are quite good and yearlings of size 200gms to 250gms are stocked in the tanks. No raw-cow dung is used.	The Post-stocking management practices are also good but in most cases Fingerlings are stocked in the tanks up to 80 mm. RCD used in maximum.
5.	Culture practices	The emphasis is given to the species diversifications. The species like Pungas and Sea bass are cultivated with utmost priorities.	Major thrust of culture is given to only IMC culture.
6.	Stocking density	The Stocking Density in almost all tanks is very high exceeding normal stocking density in Odisha. Stocking density 10,000 Fingerling/Ha and sometimes more.	The Stocking Density in the tanks of Odisha as per the prevailing practice is 5,000 Fingerlings/Ha

7.	Average size of the Seedlings at the time of stocking	Catla-250 grams. Rohu-100grams. Pangacious-50-70grams. Sea bass 50-100grams. Stocking of mrigala is not commonly found.	Catla-50-100 grams. Rohu-30-50 grams. Mrigala- 20-30 grams No diversification of stocking like pangacious and sea bass.
8.	Packing & Transporting of Fingerlings	The packing and transporting system is very advanced type. The oxygen cylinders are kept open inside to the seedlings containers over the transport vehicle causing zero mortality to the fish seed.	Age Old practice like packing of seeds in the polythene packs with manual filling from oxygen cylinder which are to be inside the tins causing 10-20% of mortality at the distribution point.
9.	Species diversification	Introduction of Pangasious and Sea bass are very commonly seen in most of the tanks of that locality. Rather take less preference to the stocking mrigal and catla in the water bodies.	Thrust is given only to stock IMC. Only species diversification is not commonly seen.
10.	Acceptance of Jayanti Rohu	Introduction of Jayanti Rohu is very less even most of the progressive farmers are not interested to stock Jayanti Rohu.	Abundantly stocked in the tanks of our state.
11.	Feeds	Branded pelleted feeds with requisite protein content are being used by all fish farmers along with probiotics.	Advance farmers only use pellet feeds. But most farmers are use rice bran, MOC and GNOC, etc.(Mash feed)
12.	Fertilizer	Fertilizers are not commonly used by the fish farmers.	Abundantly used.
13.	Shrimp culture	L.Vannamei culture popularly accepted in the state.	L. Vannamei culture has been started with few progressive farmers.
14.	Period of Culture of Fish	Twice in a year (Biannually)	Once in a year (annually)
15.	Introduction of Freshwater prawn	Almost negligible	Culture going on.

16.	Adoption of modern technology ICT	Most of the farmers of Andhra Pradesh are technosavvy and they use the social media to satiate their query. Regularly they check the limnological parameters. They use the ICT system very proactively for their fish capture from marine sector.	Most fish farmers in Odisha are not aware of the ICT system in aquaculture.
17.	Marine resources	Vast coastal area of 972 km. Contribution area of a major share in marine fish production.	480 kms of coastal area which is less than the half of the coast line of Andhra Pradesh.
18.	Provision of Aqua shop and testing labs	The provision of Aqua shop and testing labs are plentifully available in every nook and corner of the area from where the farmers get counselling regarding culture.	The Aqua shop and testing labs are very limited and the farmers are to proceed to the Govt. institution for the purpose.
19.	Rate of Fish production Ideally	IMC-5 Ton/Acre Pangasius & sea bass 50MT/Acre (Monoculture) pacu-8MT/Acre (Monoculture) L. Vannamei-3 MT/Acre (one crop) 7MT/Acre (Including 3 Crop) Freshwater Prawn- Not under culture	IMC-1.5 Ton/Acre pangasius of intensively monocultured, but Pacu intensively seen in pond. L. Vannamei-2.5 MT/Acre (two crops) Freshwater prawn-1MT/Acre.
20.	Govt. support	Most of the farmers are not aware of the Govt. schemes and Govt. subsidy. They primarily take the assistance from private sector agencies and representatives of established feed companies.	Proactive Govt. support and farmer-friendly schemes and the base level counselling are stronger.
21.	Fish consumption and Marketing	IMC consumption in Andhra Pradesh is comparatively very less than Odisha. Basically than use of catfishes and other fishes as their staple food. Marketing of IMC (Export)	IMC consumption in Odisha is more than Andhra Pradesh.

		is very high in comparison to Odisha. They export more production.	
22.	Development of entrepreneurs hip	Since the resources are good the farmers are industrious and technosavvy. The development of entrepreneurship is very rapid in comparison to Odisha.	The development of good entrepreneurship is very limited according to the availability of resources.

As discussed above the fish farmers of Andhra Pradesh are blessed with huge resources with conducive aqua-climatic zone. There disciplined dogmatic efforts in pisciculture activities have added to their achievement. Had their ignorance about Govt. schemes been enlightened properly they would have been reached at their pinnacle.

On the contrary in our State, the farmers are more aware of the Govt. schemes and

subsidies but not blessed with the resources. The only solace is that if the derilict Govt water bodies would have been renovated to some extent and that would have been provided to enthusiastic fish farmers/ WSHG etc, then it would have been adapted as the lucrative profession by them those who have been deprived of the resources.

Sangram Keshari Kar, Chahapada, Mahanga, Cuttack.

ABSTRACT :

Access to health care has always remained a major challenge across most of the developing countries. In India, where nearly 68.85 per cent of the population reside in rural areas, public health service faces many technological and operational challenges. No doubt, the government has initiated several schemes to address public health issues, but lack of awareness among the stakeholders, inadequate physical infrastructure and geographical barriers have affected a lot in health care delivery. However, rapid adoption of mobile telephone technology in rural areas has brought forth newer possibilities in health communication to bridge the health divide. Hence, mobile communication has a greater potentiality to be exploited as dependable and effective ICT media for public health. At the same time, the growing sophistication of the mobile networks — offering high speed data and cheaper but powerful handsets — has come with the possibility of greater personalisation and citizen-focused public health and medical care. This paper aimed to explore the multiple roles and effectiveness of mobile communication for the delivery function of public health programmes related to child and maternal health care. Apart from a discussion on audio-visual contents and mobile applications, the study, based on literature and interviews, has also analysed how the health services is improved by using prompts and reminders through voice calls and text messages for the health workers.



Mobile Phone Bridges Health Divide : Exploring Possibilities in Health Care Services Delivery in Odisha

Sudarsan Sahoo



1. INTRODUCTION

When we walk around any city or village, we can see different sized houses, different types of vehicles, and different types of activities going on. These differences are the indicators of disparity among individuals in terms of wealth, assets, income or some other criteria. What the differences we see around us in economic levels, is also applicable on a larger scale to the nations of the world. But development is not always calculated only on the basis of economic development or in terms of per capita income output, rather it is based on the complex cultural

and environmental factors and their interactions. Hence, it is not at all surprising that countries with same average incomes may differ substantially when it comes to the standard of living of the citizens — employment opportunities, education, health care, availability of clean air and drinking water, threat of crime etc. And in modern day society, the importance of health care can be gauged as good health is considered one of the fundamental rights of an individual.

World Health Organisation (WHO) in its factsheet reiterates that the highest attainable standard of health is a fundamental right of every human being. “The right to health includes access

to timely, acceptable and affordable health care of appropriate quality.” No doubt, the overall population health indicator has improved a lot, but the experience is not very equal everywhere, or for all. Particularly, in the developing countries the equal access to health care has still remained a major challenge. Out of many factors, rural-urban disparities have always been a cause of concern across these third world countries creating health divide. When preventive or primary care is missing, a mild sickness may turn into a complicated condition which might require emergency attention, attracting much higher expenses.

India, still predominantly rural with nearly 68.85 per cent of the population residing in rural areas, faces many technological and operational challenges in delivering proper health care service. About 80 per cent of health infrastructure, medical manpower and other health resources are urban centric. Hence, the rural health care is dependent on limited government facilities and private initiatives. The quality of infrastructure is poor; thereby people are dependent on cities for quality health care access. It is obvious that the maternal and infant mortality number is high in rural areas due to lack of emergency and timely health care at the local health care centres.

No doubt, the government has initiated several schemes to address public health issues, but lack of awareness among the stakeholders, inadequate physical infrastructure and geographical barriers have affected a lot in health care delivery.

In the absence of the complex functioning of three-tier referral systems and accessibility to secondary or tertiary health services, Government has envisaged using the telemedicine systems to improve health care at primary level. But it is limited to a few tertiary care public and private

hospitals. In the meantime, tele-consultation under telemedicine system is also very cost effective.

In this context, a low cost ICT alternative is the need of the hour. Application of mobile phone and wireless technology has the potential to meet the challenge. In India, people have more access to mobile devices than to electricity, clean piped water and road systems. According to Telecom Regulatory Authority of India (TRAI), India has some 1183.04 million mobile phone subscribers by the end of September 2017 with a rural subscription of 498.28 million (nearly 42 per cent). The overall tele-density is 91.56 %, while the urban and rural shares are 57.88 % and 42.12 % respectively. Moreover, mobile phone as a media is now comparable to the popular media like radio and television which were traditionally used for spreading health care awareness for decades. Perhaps it will enjoy the status of the most accessible ICT tool in rural areas for many years to come.

The spread of mobile technology and its priority in health care has created a new field of eHealth i.e. mHealth (mobile health). mHealth has the capability to provide individually tailored and customised services to underserved people comparatively at a low cost. This paper aims to discuss the key application areas where mobile phone technology can bridge the health divide. It also gives a comprehensive picture of the Government initiatives and implementations for the mHealth in the context of child and maternal health care.

2. WHAT IS mHEALTH?

mHealth is the use of telecommunication and multimedia technologies with integration of mobile phones and wireless health care delivery system. According to WHO's Global Observatory for eHealth, “mHealth is medical and public health practice supported by mobile

devices, such as mobile phones, patient monitoring devices, personal digital assistants and wireless devices.” mHealth capitalizes on mobile phone’s basic functionalities i.e. voice and short messaging service (SMS) as well as the complex utilities and applications like general packet radio service (GPRS), global positioning system (GPS), Bluetooth technology and 3G or 4G mobile telecommunication systems. Although development of mHealth is in its early stage, the success of the mHealth applications and programmes in the developing world in improving health care delivery is well documented.

3. mHEALTH WORLDWIDE

A survey by WHO in 2011 indicates that mHealth initiatives have been taken in many countries. The mHealth adoption rate in North America, South America and Southeast Asia is highest, while in Africa it is lowest. At least 51 mHealth programmes that are operational in 26 developing countries have been listed in a study by United Nations and Vodafone Foundation. These programmes basically focus on emergency medical services, point of care services and health information systems, drug adherence and disease surveillance, data collection and remote monitoring etc. Some popular mHealth initiatives worldwide are discussed below.

In United States, mHealth applications like Gluco Phones (monitor blood glucose levels), Text4Baby (handling issues during pregnancy) and Heal the Trax (virtual health assistant) are very popular. In Indonesia, people chat and consult with physicians through interfacing applications like Dokita (our doctor) and Dokter Gratis (free doctor). Vaccine workers in Bangladesh use mTikka application for infant registration that automatically generate vaccination schedules and send reminders to the parents.

4. mHEALTH INITIATIVES IN INDIA

In India, mHealth is initially used for maternal and child tracking system where messages were sent to Janani Suraksha Yojana beneficiaries and the Accredited Social Health Activist (ASHA) workers. System operated automatic messages helped in improvement of service delivery. The government of India, in 2012, introduced NIKSHAY, a programme to monitor TB patients through SMS services.

In 2016, Indian government has launched four mHealth initiatives — Kilkari, Mobile Academy, M-Cessation and TB Missed Call - as a part of its Digital India programme. Kilkari means a baby’s gurgle. Under Kilkari programme, a woman receives free, weekly and time-appropriate 72 audio messages about pregnancy, child birth and child care from second trimester of pregnancy till the child becomes one year old. It is launched in Odisha, Jharkhand, Uttar Pradesh and some parts of Madhya Pradesh and Rajasthan.

Mobile Academy is a training course developed by BBC Media Action to refresh and expand the knowledge and communication skills of the Accredited Social Health Activists (ASHAs). The audio course is delivered via Interactive Voice Response Service (IVRS) — a technology which can be accessed from any type of mobile handsets. It enables the community health workers to complete the course anywhere at any pace and at times they find convenient.

M-Cessation targets to reach out to those who want to quit tobacco use and sends text messages via mobile phones to support them towards successful quitting. Against traditional methods, M-Cessation stands superior and cost-effective. For the first time in the world, such a two way service is being initiated as part of any mHealth initiative. TB Missed Call initiative

enables a beneficiary to get information, counselling and treatment support services for TB by giving a missed call or call to a toll free number.

Besides, the National Health Portal of India in its website provides a list of 50 mobile applications and 24 websites under mHealth category which can be used by the citizens for health care.

5. OPPORTUNITIES OF mHEALTH IN ODISHA

5.1 Odisha: A Fact File

According to the Census 2011, the state of Odisha, with an area of 155,707 sq. km. has a population of 41 million. It has 30 districts, 314 blocks and 51349 villages. The population of the state forms 3.47 percent of the total population of India. It is ranked third in terms of Scheduled Tribe (ST) population in the country. The state stands at 11th rank as per population and 9th in terms of geographical area in the country. The average population density is about 260 per sq. Km.

The overall sex ratio of the state is 978 females per 1000 males. The literacy rate is 73.45 (64.36 per cent for females and 82.40 per cent for males). In 2013, the infant mortality rate was 51 and the maternal mortality rate was 222.

5.2 Exploring the Opportunity of Mobile Phone in Health Care

The frontline health workers always face several challenges in delivering quality health care on time. However, using a variety of technologies like IVRS, text SMS, MMS, and multimedia-enabled applications on smart phones, the potentials of mHealth solutions can be explored to support the front line health workers in five verticals. These verticals are:

1. Self-learning/Refresher Training
2. Patient Registration and Monitoring

3. Scheduling and Task Management
4. Awareness and Counselling
5. Clinical Decision and Assessment Support.

We will discuss how far the potentiality of mobile phones is being exploited in delivering child and maternal health care in Odisha in the context of these five verticals.

5.2.1 Self-learning/Refresher Training

mHealth solutions help the frontline health workers learn by going through mobile-friendly training modules with digital or audio contents. These programmes usually assess the trainees using tools such as audio or digital quizzes and tests. Odisha Chief Minister Shri Naveen Patnaik launched mobile health services — in Rourkela on February 23, 2014 in an effort to reduce Mother Mortality Rate (MMR) and Infant Mortality Rate (IMR). Mobile Academy, which is developed by BBC Media Action, is a self learning audio programme for ASHAs as they can refresh their knowledge and develop their communication skills through IVRS. This course can be accessed from any mobile handset. In this context, the comment of head of BBC Media Action India, Sara Chamberlain's comment is worth mentioned. She said, "We learned that ASHAs tend to listen to the modules after lunch or after dinner and felt that self-learning fit better into their schedule versus interrupting their schedule for offsite government training."

5.2.2 Patient Registration and Monitoring

mHealth gives a scope to the health workers to complete the registration process on the field itself instantly through specified mobile applications. It creates real-time data and reduces the chance of delay in solving gaps in delivering essential medical help due to paper-based reporting backlog of information. The efficacy of

cell phone-based registration was successfully demonstrated during the implementation of mSakhi project in Maharashtra which aims to collect data, monitor and evaluate the antenatal and postnatal health care and nutrition of infants up to six months. But community health workers collect mobile phone numbers mandatorily during the registration of the pregnant women, newborns and other beneficiaries along with other basic information like Aadhaar or National Population Register number. As a result, the beneficiaries receive SMS and IVR calls to get updates regarding health care.

5.2.3 Scheduling and Task Management

The scheduling and task management solutions of mHealth creates daily tasks for the community health workers based on the health requirements derived from the patient data base. These mobile solutions feed the central database and also allow the supervisors to stay informed about the completed tasks. For example, CARE India, an NGO, has launched an Integrated Family Health Initiative application (CCS - Continuum of Care Services) in Bihar integrating with the counselling and awareness tool of BBC Media Action. The CCS application informs the Anganwadi workers and the ASHAs about to which women they should visit and what are the topics they should cover. The application tracks the health workers' activity and sends data to their supervisor as well as the central server.

5.2.4 Awareness and Counselling

Traditionally, the community health workers use paper-based job aids like text-heavy reference materials, bulky flipbooks and complex newborn care checklists. These materials are difficult to use and adopt. The beneficiaries also find the bulky display materials less interesting. But BBC Media Action's Mobile Kunji (in Hindi it means 'guide' or 'key'), is portable, multimedia

enabled and interactive easing the difficulties of the health workers in counselling the families. The Mobile Kunji is a combination of laminated cards on a steel ring. The cards, which are in shape of mobile phones, carry illustrations, supporting arguments and key messages about maternal and child health and a unique number code on each page. After reading out the messages to the beneficiary, the health worker dials the code which corresponds to a specific audio message through IVRS. The audio messages are the recorded voice of Dr Anita. In Odisha, Mobile Kunji service has been launched since 2014.

5.2.5 Clinical Decision and Assessment Support

By going through the suggestions and the step-by-step guide of mHealth applications, the frontline health workers gradually develop their skills in identification, management and referral of the sick mothers and newborns. The IntraHealth study on mShakti application affirms that ASHAs who used the support of the application were better on patient diagnosis, treatment and referrals. Hence, where a large number of people live off the city areas, taking clinical decisions for the frontline health workers can be easier through mHealth applications.

The National Health Mission, Odisha, under its Mission Connect scheme, has created a Closed User Group (CUG) of designated health service providers of Department of Health and Family Welfare. At least 55,605 CUG members are provided free BSNL SIM cards. They can recharge with any special amount starting from Rs. 99, and thereby they can enjoy unlimited voice calls within the CUG. It helps them to take clinical decisions and share their views to assist each other virtually round the clock. The ASHAs also call 108 Ambulance service on behalf of the anticipating mothers to go for institutional delivery.

6. CHALLENGES IN INCORPORATING mHEALTH

There are a lot of challenges to incorporate mHealth. Usually mobile applications are built in English for display, transfer, input and data processing. But using local languages or dialects in the mobile application invites tough challenges. Similarly, integrating with medical devices to mobile application requires sophisticated technology. It also needs coordination of multidisciplinary fields like psychology, medical, business and computer science. On the other hand, the public health divisions of the central and state governments are also lacking adequate capacity to design and implement mobile health in the field.

7. CONCLUSION

Different studies and projects incorporated in third world countries have proved the effectiveness of mHealth initiatives in different problem areas in resource-poor setting. In Indian setting also, a number of mHealth initiatives like mDristhi and mShakti have been applied impressively. Proper implementation of mHealth can provide accurate and real-time data which will help monitor and track the health and development of women and children.

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Biju Patnaik was a towering and multi-dimensional personality no less than a colossus in every sense of the term. For a person who neither worked with him nor saw him from close quarters, it is virtually a herculean task to grasp his total personality. The author who belongs to this category having only a little bit of bookish knowledge can only salute this great and proud son of Utkal Janani (Mother Utkal) whose contributions were not only multi-dimensional but even transcended the periphery of Orissa and India extending to the international domain. A pilot-cum dare-devil nationalist, he was closely

all the life-risk that it entailed. His expanded love for democracy and freedom also found expression in his association with the 'Nepalese democratic movement since 1953'.

Every inch an ardent patriot and a fearless nationalist, he served mother India and safeguarded its national interest both in Kashmir (1947) and during the Chinese aggression (1962) or when called upon to do so.

In the post-independent period, he emerged as a high-profile and successful industrialist rolling in riches and affluence.



Development Administration in Odisha: Mainstreaming Biju Patnaik's Contribution and Achievement

Dr. Shridhar Charan Sahoo



associated with stalwarts like Jai Prakash Narayan, Dr Ram Manohar Lohia and others. He extended his all-out support to them during the Quit India movement (1942) carrying in his aircraft those nationalist leaders to their destination. He also distributed handbills of Netaji Subhas Chandra Bose and that is why he was court-martialled and was sentenced to three years imprisonment.

Apart from contributing his mite in India's struggle for freedom, he as an 'international activist' for freedom was closely associated with the Indonesian freedom struggle unconcerned of

However, destiny ordained it otherwise. He was not cut out to be only an industrialist getting engrossed in business and industry in the private domain of life. His other-regarding self virtually propelled him to enter into the public domain which in course of time catapulted him to blazing lights of prominence and popular acclaim.

This legendary leader and idol of the masses had almost a hectic and uninterrupted political career serving his state and the country in turns working in different capacities. He was a distinguished and talented member of Orissa

Legislative Assembly, an outstanding leader of opposition, a remarkable Chief Minister of Orissa in 1960s and 1990s and an efficient Parliamentarian and effective Central Minister. "His contribution to India's democracy was the role he played tenaciously and repeatedly in Orissa and at the national level for forming opposition unity through times of factional politics.

In the midst of his hectic political life and career, he had neither the opportunity nor possibly the required leisure to evolve a systematic thought pattern of his own. But then, he showed the traits of a real thinker with some innovative ideas and a vision of his own particularly in the realm of nation-building and development.

The present article entitled 'Development Administration in Orissa: Mainstreaming Biju Patnaik's contribution and achievement' is an humble attempt to systematize his achievement, ideals and vision in the said field. It is being preceded by a conceptual framework felt necessary by us to evaluate Biju and his contribution in the right manner and spirit.

Simplicity is a sign of greatness and lucidity of expression is an art. Biju Babu appears to be a connoisseur and past master in this art. His ideals and vision though couched in the simplest of expressions are nonetheless very significant words being backed by a huge fund of experience. His dreams, ideas and vision if adhered to and followed in right earnest will greatly help in creating a more vibrant, a more prosperous and a more developed Orissa of Biju's dream and vision.

(A) Concept of Development

Development is one of the major concerns of our times. Whether one is a politician or a political scientist, an administrator or administration theorist, a planner or an economist, a sociologist

or social scientist, almost everybody talks of development. But the concept of development as such or its goals and strategies have grown and evolved over the years. In its initial stage development was primarily concerned with economic growth and was often measured in terms of changes in Gross National Product (GNP). A country was said to be developing if its GNP was increasing.¹

But now this concept of development has acquired a broader and more comprehensive connotation. It has come to mean broad human development which includes not only physical but also socio-economic and civil - political development. Social Development embraces provision of social services like education, health and recreation and provision of justice for the socially deprived groups such as scheduled castes, backward classes and women. Civil Development implies provision of civil liberties and political rights. This is evident from the emerging human rights perspective on development.²

Moving from the economic growth and GNP dimension of development through human development, the concept has further grown embracing two new conceptions of development, namely Sustainable Development and 'Ethno-Development'. The concept of sustainable development gained currency in the 1980s following the emphasis put on it by the world commission on Environment and Development (known as Brundtland commission framed by the United Nations in 1983). Broadly speaking sustainable development refers to "such development as is not damaging to ecology and destructive of environment." The concept of 'Ethno-development' which has emerged out of a pragmatic study of development issues and problems states that development of a country

can not be divorced from the socio-cultural realities and ethos of its society. The mode and model of development of the western world, for example, may not suit the under developed or developing states in its entirety to be willingly adopted or thrust upon them by any outside pressure or agency. Hence, Ethno-development emphasizes on an indigenous mode of development which is compatible with the socio-cultural ethos of a society.

While the U.N. initiative for sustainable development has created an awareness for reformulation and restructuring economic development policy in terms of protecting the environment and ecology for the present and future generation, other developments since 1990 of the last century have raised a critical debate over development policy. There has been a switch over to the policy of liberalization, privatization and globalization. The policy seeks to reduce the role of the state in the development process to the minimum.³

What is marked now is that under this policy, state is retreating more and more from the socialistic and welfaristic ideology leaving social service sectors like health and education etc to private sector. India, as we know has adopted this new policy of globalization, liberalization and privatization since 1991.

Keeping in view this new turn in India's policy of development, it has been rightly said: "These kinds of changes call for debureaucratization of our development administration. What we need to-day is a machinery of development administration which is flexible, responsive and above all committed to the cause of improving the lot of socially deprived economically under-privileged and politically-oppressed sections by our society".

(B) Emergence of Development Administration

After the Second World War (1939-45), quite a sizable number of countries of Asia, Africa and Latin America freed themselves from colonial rule and emerged as independent sovereign states. 'During centuries of colonial rule those countries had no choice of their own to think about their problems of development and determine the order of priorities in which they would employ their resources both human and material.'⁴

Most unfortunately, the natural resources of those countries were exploited by the colonial rulers to their own profit and advantage. As it were, they showed little concern about their development or well-being and consequently those countries under colonial rule became helpless victims of poverty, hunger, ignorance, inequality and backwardness. Now the main task before the government and leaders of those newly independent states was how to get out of this cycle of poverty and backwardness and accelerate and speed up their economic, social and political development. As it were, by the beginning of sixties (1960s), development became the dominant issue in the third world or developing countries.⁵

To meet the needs of development of those newly independent developing countries there emerged a new species of administration, a special mode of administration called development administration.⁶

The concept of development administration developed with this background. It is mostly used in the contextual specificity of those newly independent developing countries who have been trying for their rapid progress and development. Some scholars consider it wrong

to presume that development administration is solely concerned with the administration of developing countries. Developed western societies, in their view, also face the problems of continuing socio-economic and political development. More over, confining the concept of development administration to developing countries will reduce its utility and discourage us to have a comparative analysis of developed and developing countries.

(C) Development Administration : A Theoretical perspective

The term 'Development Administration' is of recent origin. It was first coined by Goswami in 1955 and was popularized later on by eminent scholars like Fred W. Riggs, Edward W. Weidner, Joseph La Palombara and Albert Waterson etc. Weidner was the first who introduced the concept of development administration.

Defining the concept of development administration is quite a difficult task since its meaning has undergone changes following new development and experience in developing countries. Weidner who is said to be 'the first' to have introduced the concept of development administration defined it as "the process of guiding an organization towards the achievement of progressive political, economic and social objectives that are authoritatively determined in one manner or the other."⁷

Merla Fair Soul, who is another eminent scholar has explained the concept of development administration taking, a functional approach. It embraces according to him the array of new functions assumed by developing countries embarking on the path of modernization and industrialization. Development Administration involves the establishment of machinery for

planning economic growth and mobilizing and allocating resources to expand national income".⁸

Thus, modernization, industrialization and institution building for planned economic growth and development constitute some vital dimensions of Development Administration.

This agenda of development administration embracing modernization, industrialization and other development goals could be successfully realized only by a bureaucracy which is efficient, dedicated and committed. Hence, Development administration rightly emphasizes upon "the building and improvement of a public administration system as part of the total effort of national development".⁹

The building and improvement of the public administration system has two dimensions it embraces a structural improvement or the improvement of the structure of administration where needed and also enhancing the capacity and commitment of those who run the structure of administration. Hence, Development administration requires not only expansion, improvement or even basic reorganization of the administrative system but also enhancement of the capabilities of administrators to orient them to the task of national development. This type of administrative system is currently termed as development administration.¹⁰

Apart from improvement of the administrative system and enhancement of the capabilities of administrators for the pursuit of development, development administration today has to address itself to issues of justice, equality and human rights. It has been aptly said by Bryant that with the awakening issues of human rights and basic human needs and a changing international order, development administration

can and must address equity and redistributive issues with a focus on implementation problems that these issues raise.¹¹

So development administration has to ensure human right and provide the basic human needs of people such as food, shelter and clothes.

Conventional Public Administration differs from Development Administration with regard to its objective and scope. The objective and scope of development administration has a broader horizon than that of conventional public administration concerned primarily with maintenance of law and order and collection of revenue etc. As it were, development administration is a goal oriented administration which is geared to the objectives of nation building and socio-economic progress". But this nation building and developmental role can be successfully played only by an administration or by a type of bureaucracy which is capable and efficient. This necessitates the development of administration and enhancing the capabilities of administrators for the realization of development goals. So, two things constitute the essence of development administration. First of all, it involves strengthening and improving administrative capabilities as a means of achieving development goals and secondly, development administration has to act as an instrument in the implementation of development programmes, projects and policies.

The scholars of administration refer to it as 'development of administration' and 'administration of development' respectively.

In fine 'development administration is the process of carrying out development programmes and projects in the direction of nation-building and socio-economic progress through a developed administrative organization.

In view of the difficulty to find a suitable and all inclusive definition some of its important elements are referred below to find out its linkage or applicability to the dynamics of development administration in Orissa with special reference to the Biju Regime of Chief Ministership.

Development administration is a goal oriented administration with its pre-dominant focus on nation building and socio-economic development.

In operational terms, it refers to planned and organized efforts to carry out development plans and projects in the direction of state- building and socio economic progress.¹²

But this has to got to be done as quickly as possible and also within a definite time-frame. This time-frame or temporal dimension is of "great significance" in development administration "since development programmes are prepared for a certain time frame say five years and must be completed within that. Thus, Development Administration is result and target oriented. Development Administration, moreover seeks to build up a set of development administrators. They are not to be primarily pre-occupied with maintenance of law and order and collection of revenues like the bureaucracy of our colonial days with hardly any concern for people's development and welfare. They are supposed to be development-oriented administrations geared to the task of development and people's welfare with a sense of dedication and commitment. So, in development administration, the organizational role expectation is commitment to development and a concern for completing time- bound programmes.

This necessitates strengthening and improving administrative capabilities of the

bureaucracy and of course internalizing in them a development centric-mindset for achieving development goals. It has been very aptly remarked that a band of officials "brought up and trained in the colonial administrative structure, wedded to weberian characteristics of hierarchy, status and rigidity in the adherence of rules and concerned mainly with enforcement of law and order and collection of revenues were quite unfit to perform the duties expected in the changed situation of an administration geared to the task of development."¹³

Development Administration is progressive and change oriented. It is expected to work towards achieving progressive political, economic and social objectives. The distinctive feature of development administration is said to be "its central concern with socio-economic change" and it is this which distinguishes it from regulatory or traditional administration which is basically concerned with maintenance of status quo.'

Development Administration would involve greater participation of the people in the development process. The people are not passive beneficiaries, they are active participants in the development programmes. A development oriented administration makes use of the strategies of decentralization, delegation and consultation and 'makes the administration grass-root oriented' over and above, development administration expects the bureaucracy to think, ponder and develop creative and original ideas to facilitate and expedite the development process. It calls for 'positive, persuasive and innovative stances from the bureaucracy' whose advice would stimulate and facilitate the implementation of defined plans and programmes of development.

Development Administration is essentially 'a people centered administration its motto being service of the people and positively oriented towards satisfying the needs of the people. The crucial test facing the post colonial administrative systems is to cater to the needs of the poorest of the poor. It has to be responsive, accountable and committed to people's welfare. 'They need to possess and demonstrate their willingness, dedication and even perseverance to achieve the progressive goals of development.'

Last but not the least development administration has 'a close nexus with politics' 'The what and how of development' says Prof. Mohit Bhattachary 'are political questions' determined and guided by the political leadership and to be worked out by the administration under its direction. As rightly said : 'Development administration without politics is like the drama of hamlet without the prince of Denmark'.

To Sum up:

- a) Development administration seeks to achieve progressive political, economic and social objectives.
- b) The objectives are authoritatively determined by the government and political leadership.
- c) Industrialization, Modernization and institution - building for planned economic growth and development are vital dimensions of development administration.
- d) Building and improvement of the public administration system as a part of the total effort of nation development. It embraces;
 - i) Improving and re-organizing the structure of administration.

- ii) Enhancing the capability of administrators who are to implement the development agenda.
- e) Development Administration has to address itself to issues of human rights and guarantee basic human needs of people.
- f) It has to act as an instrument in the implementation of development programmes, projects and policies.
- g) Development Administration is goal-oriented and involves planned and organized efforts to carry out development programmes and projects in the direction of state building and socio-economic progress.
- h) Development Administration is result and target -oriented. It seeks to carry out development programmes as quickly as possible and within a definite time frame.
- i) Building up a set of development administrations who are not to be wedded to or unduly circumscribed by weberian characteristics in the adherence of rules but to perform their duties as a team of administrators geared to the task of development.
- j) Its central concern is progressive socio-economic change unlike the regulatory or traditional administration basically concerned with the maintenance of status quo.
- k) It involves greater participation of the people in the development process. It is 'people-centered' responsive, and accountable to the people.
- l) Development Administration calls for a creative and innovative bureaucracy which by its ideas facilitate development and carries it forward to greater heights of achievement.

(D) The Dynamics of Development Administration in Orissa Under Biju's Chief Ministership.

In the light of the afore-said parameters of Development Administration, our article entitled "Development Administration in Orissa: Mainstreaming Biju Patnaik's contribution and achievement" seeks to study the contributions of Biju Patnaik in the domain of development administration in Orissa. Over and above, we would like to examine the relevance of his ideas on development administration to extend the frontiers of Orissa's development to greater heights of excellence.

Biju Patnaik, as such needs no introduction either in Orissa or outside as the frontiers of his activities and dynamism transcended the peripheral limitations of our state, our nation and even extended to the international domain. However, a brief profile is submitted' below regarding his Chief Ministership, his mission, his dreams and priorities as is relevant for our study.

Biju Pantanik became Chief Minister of Orissa on June 23, 1961 with a massive mandate of 82 in a house of 140 members and it was for the first time in independent Orissa that Congress Party secured an absolute majority. By then he had built up a national reputation as a firebrand and dare-devil nationalist displaying remarkable courage during the Quit India Movement or in his Indonesian expedition or in saving Kashmir. Over and above, he had already established his credentials as an imaginative industrialist with a splendid vision of an industrialized Orissa establishing some major industries like Orissa Textile Mills, the Kalinga Refrigerator works, Kalinga Airlines and Kalinga Tubes etc. All this endeared him to Nehru and his good and

favorable equation with him proved to be a great blessing for Orissa's progress and development.

It may be recalled that industrialization of Orissa or an industrialized Orissa was the central theme of his election manifesto in the midterm election of 1961 which brought him to power.

Biju had a brief tenure of Chief Ministership as a Congress Chief Minister from 23.06.1961 to 02.10.1963. This brief spell is considered as the golden age in Orissa's progress and development particularly in the field of industrialization.

It was after a lapse of twenty seven years, Biju made an unprecedented comeback and became the Chief Minister of Orissa again for the second time on 5th March 1990. Unlike the first spell of Congress Chief Ministership, he headed now a Janata Dal Government. This tenure as Chief Minister came to an end on 15th March 1995 and became the first non-Congress govt. to have stayed in power for almost the full term.

After assuming power in his second spell as Chief Minister he fixed up three priorities of his Government namely-

- a) Ensuring a clean and non-corrupt government in the state.
- b) Establishment of a second steel plant, deepening of the Paradeep Port, the extension of railways network etc. and
- c) The functioning of the government in such a manner as to be identified with the poor.

In the light of this goal-orientation during his two spells of Chief Ministership, we have to study the contribution of Biju Patnaik in the domain of development administration.

Biju was neither a political scientist nor a theorist of administration. He has certainly not contributed any systematic theory or philosophy of administration that could satisfy our political scientists or administration theorists. However, he as the Chief Minister of Orissa in 1960s and 1990s and as a Central Minister had acquired practical experience of the working of bureaucracy and administration both at the state and central level. His speeches delivered on various occasions and at different times throw enough light on the working of his mind on Bureaucracy administration and development. It has been very aptly said that Biju Patnaik as an administrator deserves a lengthy discussion so far as his own philosophy of administration is concerned.

The ideas and actions of a political leader whether on administration bureaucracy, development or development administration donot develop in a vaccum. It is shaped and moulded by a multiplicity of factors like one's philosophy of life, one's commitment and of course the contextual specificity of one's own state. Biju was a proud Oriya and loved Orissa with every fibre of his being. He wanted his beloved Orissa to grow, prosper and develop into a number one state in India. He was quite often vocal about the rich natural and human resources of his state and felt anguished that inspite of all this Orissa remained poor and backward. This paradox of prosperity in natural resources and poverty of its people rankled in his mind off and on throughout his life. So how to develop Orissa and bring about its all -round and rapid development became the prime agenda of his life and mission.

As it were, Biju was a man in a hurry. He dreamt of rapid development of Orissa and eradication of its poverty as quickly as possible.

As regards, bringing about rapid development of Orissa and eradication of its poverty, Biju had a mind of his own as to how his administration should work, what should be its motto and what should be the focus of its loyalty. His ideas and answers concerning all this and in some other dimensions appear quite similar to the concepts and ideas of development administration.

E) Biju's first spell of Chief Ministership (1961-63): A Glorious Era of Industrialisation and Development

Development Administration embraces an array of new functions assumed by the developing countries embarking on the path of industrialization and development.

In Orissa, Biju Babu embarked on this path of industrialization and development almost with a reckless abandon. In fact, his first spell of Chief Ministership in the 1960s marked a vibrant era of industrialization and development. Biju, as it were, had a vision - the vision of an industrialized Orissa. That Orissa in spite of its rich natural resources would remain backward and poor was unbearable to his inner urge which dreamt of a powerful and prosperous Orissa. His exposure and impression of the developed world made him convinced that it is industrialization and modernization alone that could lift Orissa out of its grinding poverty and backwardness.

On June 23, 1961 Biju Babu became the Chief Minister of Orissa. At the helm of affairs Biju now encouraged small and medium entrepreneurs to set up their units and contribute to the industrialization era of the state. He invited large industrial houses and magnates to put up some of their units in the state. He accelerated completion of major projects like the Rourkela Steel Plant and Hirakud Dam Project which

lagged behind completion schedule or slowed down in respect of isolated minor works.¹⁵

It may be said here that Biju Patnaik as an administrator belonged to the school of development administrators who emphasized on a time frame - a definite time schedule of completing projects. He hardly possessed the patience to bear with bureaucratic delay or red-tapism. As it were, he was a leader in a hurry for the sake of Orissa's rapid progress and development either in the sphere of industrialization or in relation to any other sphere of development.¹⁶

Apart from accelerating the completion of major projects like the Rourkela Steel Plant and Hirakud Dam Project, another memorable achievement in the field of Orissa's industrialization was the establishment of the Mig Engine Factory at Sunabeda in the tribal district of Koraput. The establishment of this factory at Sunabeda was virtually the outcome of a battle royal which Biju fought with Nehru. He even went to the extent of sounding a note of warning to Nehru that if the Mig factory was not established in Orissa, he was going to resign from his Chief Ministership. It clicked. Sunabeda had the Mig Engine factory.

As an imaginative industrialist, Biju started with his own initiative and with the state's resources two power projects since it was of absolute necessity for the industrialization of the state. Thus Balimela multi-purpose project in Koraput district and Talcher Thermal Power project in the present Angul district were launched during his first spell of Chief Ministership.

The most outstanding supplement to his achievement as a development administrator was the construction of the Paradeep Port. Attributing the growth of Calcutta to the port system he

cherished the idea that Paradeep Port could be the greatest factor for priming the pump of economic development.¹⁷

The way, he took up the construction work of Paradeep Port quickly smacked of his dashing and go-ahead disposition as an administrator. He had no patience for hundred and one clearances' from the Central Government nor could he wait for sanction of funds by the Central Government. He was not the man to bend or succumb to the 'stiff opposition from the Orissa Bureaucracy' or to be thwarted by the 'do delay for delay's sake attitude'.¹⁸

As is known, he lost no time to earmark funds from the state's budget for the construction of the port and 'spent 19 crores from state's contingency fund to complete the first phase of the port's construction'.¹⁹

Justice H.R. Khanna who headed the Khanna Commission instituted against him in 1967 rightly said "my own view of the matter is that Paradeep Port was to some extent a creation of Sri Patnaik."²⁰

This Paradeep Port which was the brainchild of Biju became 'the pride of Orissa and the gateway to its prosperity.

The Daitari Paradeep Expressway which is the indispensable ancillary project of the port project was also constructed simultaneously and in the same swift manner as the port work was undertaken.

A more detailed discussion is called for to appreciate what Biju did to actualize the Paradeep Port and the Daitary Paradeep Expressway.

Development and nation-building was almost an over-riding passion for Biju Patnaik.

He was second to none in his dedication and determination to achieve it. No hindrance and no obstacle could deter his dogged determination. He knew how to cut through the Gordian knots and reach his cherished goal with of course the vision of a statesman who looks far ahead into the future. This trait of his character and vision was amply evident when he transcended all difficulties and obstacles and got the afore-said Paradeep port and the Daitari Paradeep Expressway established in Orissa.

Sri Barendra Krushna Dhal, a very popular and prominent journalist has brilliantly highlighted the afore-said traits of Biju's character in an article published in Dharitri on 29.01.2008 under the title "Paradeep Bandara Akami Hoijiba!". That brilliant article shows the extent and degree of Biju's determination to realize his dream of a developed Orissa. We take the privilege of translating Mr. Dhal's article acknowledging our debt of gratitude.

In the words of Mr. Dhal "Paradeep Port was the brainchild of Biju Patnaik---- the Govt. of Orissa under Biju completely met the expenses of the port in the beginning. It was virtually a bold and reckless adventure of Biju. When ever any zeal or inclination entered into his mind, it more or less stuck to and preoccupied him until he got it realized. In those days, there was virtually no road communication to Paradeep. Nor was there electricity. But Biju was determined to make Paradeep a major Port. He started its work in right earnest and also the work of express way to connect Paradeep Port with the mine areas of Keonjhar and Sukinda. These two projects were sent to the Planning Commission for approval which how ever rejected them as unrealistic and made no provisions of money in the budget. But Biju was unperturbed and unrelenting. He had an

inward and impelling faith that once the construction of the port and express way was completed, he could influence Jawaharlal Nehru and convert them into Central projects. That he did and could. Nehru, as it were, agreed to inaugurate the Paradeep port on January 3, 1962. Before Nehru came, a guest house along with two tin sheds were constructed. The guest house was named Nehru Niwas. Some roads were constructed on war footing and electricity was also supplied to different areas. Prime Minister Nehru accompanied by Biju went from Anantapur by boat and stayed in Nehru Niwas at Paradeep. On the inauguration stone it was stated: "willed by the people, I commend you to this yet another national venture".

An amount of 16 crores was spent for the Paradeep Port and Rs.7crores was incurred for expressway. It was then a very expensive project for Orissa with only 55 crores and 20 lakhs as Orissa's total revenue in 1961-62. In view of this inhibiting expenditure Paradeep Port project was considered to be "a white elephant" for Orissa and was vehemently opposed by a sizable chunk of Orissan leadership of the time.

B.G. Verghese who was editor of the Times of India wrote, how ever, a brilliant editorial on Paradeep port which in no uncertain terms acknowledges Biju as a remarkable and far-sighted statesman unlike a mere politician who is near-sighted and unable to look ahead into the future. As B.G.Verghese has been quoted "the project has evoked controversy and criticism. But 5 or 10 years from today, there is little doubt that Paradeep will stand as one of the finest achievements of the third plan. Paradeep is not just an individual project. It is also a symbol. xxx Paradeep is a symbol of the effect system to which the country has become prisoner and of the

outmoded framework of development. The restrictive influence of the system costs the country dearly in money and time and Paradeep is irregular and has become a scandal because it has broken out the system and worse succeeded xxx Paradeep is a splendid achievement and ornament in the third plan ----- it is not the project but the system and the narrow suffocating atmosphere it breeds that stands condemned" (19th June 1965). Those far-sighted words of Verghese have been proved true. As it were, Paradeep is today a major port of the country and stands out as a brilliant monument of Orissa's development map epitomizing Biju's Vision as a development icon.

The extent of Biju's all- out effort to actualize his dream of Paradeep Port and express way comes out in bolder relief from what Mr. S.K. Banarjee , the then Secretary of Steel and Mines said to Mr. Barendra Dhal in 1975 as highlighted in his article. As he is reported to have said "it is unfortunate for Orissa that a leader like Biju has not been brought to power and administration again. It was possibly September 1962. I do not exactly remember the day. In the early hours of morning, the calling bell in my house rang. My daughter opened the door and came running almost perturbed. As she said : Daddy ! Daddy! a very tall man telling himself Biju Patnaik is standing on our door. I was virtually surprised. I thought "why should Biju Patnaik after all come to my house? I was then on my cup of morning tea. I hurried upto the door. I just could not believe my eyes when I saw Biju Patnaik standing in front my door. I said to him: "Sir I could have met you had you summoned me". Biju looked at me and said : "are you Banarjee? I nodded my head in agreement. I was then Deputy Secretary of Shipping and Transport. By then my wife almost with a sense of anxiousness had reached the door on hearing Biju Patnaiks name. Then Biju babu

said: I think, you are Mrs. Banerjee. My wife nodded her head. Then all of a sudden Biju babu said : " should I stand here or you will invite me to your drawing room. Immediately I invited him to my drawing room. After sitting in the drawing room Biju babu humorously said : "Mrs. Banarjee, for your husband I have not taken my morning tea". By then, I was almost in a state of surprise and confusion. I could not make out as to why should such a big gun like Biju Patnaik, the Chief Minister of Orissa and also a very close confidant of Prime Minister Nehru come to the house of a Deputy Secretary like me. After a while my wife came with tea and while sipping tea, he said in chest Bengali : " Mrs. Banarjee, Ami jani Bangali Mahilara Khubai Budhimati. Apnar Swami ke Akthu Buddhi Dichhena kena? (Mrs. Banarjee, I know Bengali women are very intelligent. Why don't you give out some intelligence to your husband ? Then he looked at me and said: "Banarjee, you have opposed my proposal on expressway. You have suggested for a railway line . I am interested the Paradeep Port and expressway must be completed by 1964. Can the railway line be completed within two years? I could then only know why Biju Babu had come to my house. I then said : Sir, I have sent the file to the Minister." Biju Babu then said: " I have told Rajbahadur to send back the file to you. You please today get back the file and O.K my proposal. On the same day, said Banarjee, I went to the then Shipping and Transport Minister, Mr. Rajbahadur ; got back the file and sent it back supporting Biju Babu's proposal. As Sri Banarjee said further "Biju Babu's love and concern for Orissa was unparalleled and exemplary. He knew, moreover, how to get things done for Orissa.

Biju Patnaik also established Rural Engineering Works Organisation to offer

engineering expertise and service in the execution of small but numerous rural road and building projects. Minor irrigation projects constructed by this organization added to the irrigation potential in a small but momentous way.²¹

Industrialisation was the quintessence of Biju's concept of development. But that did not prevent him from according due importance to agricultural development. As has been said : "..... attention was given to the improvement of obsolete techniques and the change of uneconomic cropping pattern. Power tillers, tractors, sprayers were provided. The change in cropping pattern included double cropping programme and spread of cash crops and for this decision was taken to step up lift irrigation through the co-operative societies of cultivators.²²

During his Congress Chief Ministership Biju opened the eyes of Orissa²³ in various ways like rapid expansion of engineering, medical and agricultural education. He persuaded and prevailed upon the central government to set up Regional Engineering College at Rourkela and with munificent grant from the Central Government, he funded the University of Agriculture and Technology at Bhubaneswar.²⁴

Burla Engineering College and the Regional College of Education at Bhubaneswar were also established during his first spell of Chief Ministership.

Patnaik's regime also witnessed mushroom growth of general colleges which helped democratization of higher education. Through his encouragement thirty four private colleges were established²⁵ making it possible for the poor and middle class students to have the benefit of higher education at their door step. The establishment of those colleges by the positive

encouragement of his government led to greater politicization.²⁶

Popularization of science through general education was also accorded top priority and in this respect Biju played the role of a promoter of science. Like Nehru, he had immense faith in and commitment to science. Biju believed in the modernization of society on a scientific foundation and he was for inculcating a scientific temper.²⁷

He spent also a lot of money for research and development and formed an institution in the name of Kalinga institution of technology and design whose main objective was research and invention.²⁸ He also used lots of money to incorporate the Kalinga International Award for popularization of science and technology. This award is being managed by UNESCO and given every year to internationally eminent scientists. He also formed Kalinga Foundation Trust through which he helped thousands of brilliant boys and girls of Orissa to take up higher studies in this country and abroad. All these were meant to help the Oriyas to gain confidence in themselves and also to earn name in the national and international scene.²⁹

Biju Babu was a student friendly Chief Minister. Scholarships and stipends to meritorious and poverty stricken students multiplied during Biju's Chief Ministership. More particularly his government was quite liberal in extending scholarship to students prosecuting technical education. It was a matter of policy of his government and in fact, the governor's address to the first session of the Orissa Legislative Assembly on 21.08.61 said : My govt proposes to tackle the problem by seeing to it that no promising student who aspires to receive technical education in the future is deprived of the necessary educational facilities because of his

poverty. Scholarship for such deserving students will be freely provided.³⁰

Biju's regime displayed its special concern for the academic improvement of Adivasi students. The construction of Adivasi hostels multiplied with the liberal provision of funds. In reply to a question of Sakila Soren dated 6th October 1961 Biju Babu said: "The Government have estimated an amount of Rs.1 lakh and 4 thousands for construction of Hostel.³¹

Scholarships to Adivasi students for the study of Science and Engineering was also specially encouraged with Rs.27 per month and Rs.75 per month for the science and engineering students respectively.³²

Thus Biju patnaik's first spell of chief minister made rapid strides in the realm of industrialisation, development and modernization.

(F) Biju Patnaik and Institution building

Development Administration involves the establishment of machinery and institutions for planning economic growth and development. It seeks to augment national income by mobilizing and allocating available resources.

Biju who was a symbol of dynamism made use of his innovative acumen for the progress and development of Orissa. He established a number of new institutions or structures of administration. As it were, he formed a number of corporations like Industrial Development Corporation (IDC) Orissa Forest Corporation, Orissa Mining Corporation and Orissa Construction Corporation etc during his first spell of Chief Ministership in 1960s. Whereas the Industrial Development Corporation was formed to facilitate the industrialization of the state, the other Corporations were designed to augment the revenue of the state.³³

Rural development is an important segment of our development process. It is specially important for Orissa where the predominant section of people live in villages. Biju who is known for his dynamism and innovative stances evolved and implemented an innovative scheme of rural development called panchayat industries. Under this scheme seven Sugar Mills, twenty tile making units, ten carpentry units, ten small foundries, a paper mill and factories based on agricultural products were established in a single year. He had an idea to industrialise each block in due course, to utilize the available resources and to generate employment for the rural people. To increase zeal and enthusiasm for industrialization at the block level, prize money amounting to rupees twenty five thousand to one lakh was floated. Co-operative Bank and other financing institutions were directed to finance the Panchayat Industries. Besides three revenue divisions of the state declared an award of one crore each to the Panchayat Samiti for its achievement in the field of industrial development.³⁴

This novel scheme of panchayat industries aroused 'great enthusiasm' in the country. Jaya Prakas Narayan was full of praise and remarked that it gave concrete shape to the ideas of Panchayati Raj of Mahatma.³⁵

Over and above, it was greatly appreciated by the planning commission and was recommended as a model of rural development to other states. Some lecturers of Economics selected this scheme for their Ph.D. degree and many journalists also published articles.³⁶

Biju was of course ahead of his times. In 1960s he could think of eradicating rural poverty through small scale and cottage

industries by his Panchayat Industries scheme. On the other hand, it was in the second part of 1970s that government of India created District Industries centers for the promotion of small scale rural industries. It has been said with reasonable pride that 'what Biju thinks to-day, India thinks decades after'.³⁷

The then ambassador of U.S.A. Chester Bowles was also fascinated by this scheme of panchayat industries. In his book entitled 'MAKING OF A GREAT SOCIETY' - he significantly said: 'Orissa would have been an equal of Japan in the development domain had it implemented the panchayat industries scheme sincerely'.³⁸

Another machinery for planning economic development was the creation of the Planning Board at the state level. It was his brain child' and 'became a trend setter for other states as well for their planned development'. 'He is said to have done an original work in setting up this Planning Board at state level on 15 June, 1962. Its utility was subsequently realized by other states and now it has been accepted by most others'.³⁹

(G) Biju Babu and Development of Administration

Development administration seeks to improve the public administration system, enhance the capabilities of administrators to implement the development goals and the task of nation-building.

In Orissa, Biju Babu tried to do his best in this direction. As it were, he not only tried to reorganise the administrative structure where needed but at the same time tried to build up a set of development administrators who would be people-oriented and committed to the development goals of the state. To streamline the

bureaucracy and administration, he worked with tenacity and determination the like of which was possibly not done by any other Chief Minister to the extent of inviting their wrath and displeasure.

He advised the bureaucracy to be development-oriented and people centered repeating time and again their role in the development process and their accountability to the people in a democratic system. He even went to the extent to encouraging assault on corrupt officials who worked not for the people for whom they were paid but for their own interest and at the cost of the poor taxpayers money spent on them.

In the past a number of efforts were made to decentralize administrative structure in the district level in Orissa so that the administration could reach the doorsteps of the people and serve them well. During the Chief Ministership of Nandini Devi, the Rajkishore Das Commission was formed to reorganize the districts. But this could not be carried out due to opposition of vested interests and lack of strong political will.

Biju Babu realized the need of breaking up big large districts in which neither law and order could be effectively maintained nor could development programmes be properly supervised. During his second term as Chief Minister, he with a stroke of pen broke up the 13 districts and reorganized them into 30 districts. Many political leaders and so called intellectuals were opposed to this step but did not have the guts to oppose the strong political will of Biju to carry through the reorganization process in the interest of his people. Supporting this step in the right direction it is said : "Is it possible for a Collector and S.P. sitting Cuttack to maintain law and order in Jagatsinghpur, Paradeep, Kendrapara, Athagarh and Banki ? Is it possible

for them to monitor and supervise the development programmes ? Undivided Koraput District for example is little less in area than the state of Kerala. Is it possible for the Collector and S.P. to manage this problematic Adivasi dominated District ? Small districts could certainly tackle their law and order problem well and also supervise the development programmes more effectively .⁴⁰

To streamline the administration Biju advised, warned and cautioned the bureaucracy on various occasions so that it works in the interest of people by providing them a clean and efficient administration. In fact, after being sworn in as Chief Minister on March 5, 1990 Biju Babu underscored the paramount need to streamline the administration. He wanted the bureaucracy to come up with decisions, instead of writing notes on files⁴¹ You should have the mind of an entrepreneur and promoter' was the advice of Biju to Secretaries of different departments who called on him".⁴²

He advised them to give their best to the people in return for the money and comfort that the state gives "you should not enjoy on people's money but should rise to people's expectations who were watching your performance⁴³ said Biju to them.

He told them to be independent, bold and upright and help in the development of the state by giving proper advice to the political executive. He also tried to cleanse the state Administration of corrupt elements. As regards this he took a very tough stand when he said "I will be the harshest administrator in Orissa as far as curbing corruption is concerned".

Biju Babu's views on the police and administration deserve a look as it is a vital organ of justice delivery system in the state. If any thing

Biju calls a spade a spade and does not hesitate to even reflect upon the conduct of his own breed of politicians vis-à-vis the police administration. Serving the public interest is the paramount concern of development administration. The police personnel are expected to act accordingly instead of becoming stooges of politicians and ministers. Hence, he called upon the police personnel to become the true sentinels of public interest rather than remain as stooges of politicians and ministers.⁴⁴

The behaviour of the police towards the public also engaged his sincere attention. They can not afford to behave like oppressive kings and emperors of the past in a democratic order. "It is high time." said Biju, that they should mend their ways." "you are no more a machinery to safeguard the hegemony of the Britishers but public servants of your country which calls for a social security organ of government rather than oppressive machinery."⁴⁵

It will not be out of place to record the views of Biju Patnaik on the relationship of the Bureaucracy with the government. As per his vision, during the second term he was not in favour of public servants becoming conformists or taking to the path of placating the government. He asked the top bureaucrats to shun sycophancy and be bold and upright. He regretted that the public servants rank and file try to placate the government. In his view, 'It is basically wrong since as public servants, the ideal that should be kept in mind is that you are working for a cause. That is the cause of the people. Not of unscrupulous politicians and power-mongers.

Biju Babu's inaugural address on 15 June 1962 in the State Planning Board also shows that he was not in favour of his civil servants becoming

conformists and spineless yesmen. On the contrary "he gave them every right to differ on occasions when they honestly felt in favour of giving a dissenting note".

"I do not expect my officers to be loyal to me nor to my government, but they should be loyal to the destinies of the state. In the new set up, in the new adventure which we are going to embark upon, I would expect my official to be thinkers and administrators in turn. I would expect them to collectively and willingly push the state towards the goal of prosperity. I would expect them to be leaders of men and not leaders of longest notes on files. They should be serious men".

Biju Babu even though not a theorist of administration or a researcher in the domain of administration, had the penetrating perception of a researcher. In a way, he like a researcher was raising the question of values, motivation and aptitudes of the bureaucracy entrusted with development tasks and responsibilities. Possibly, he saw to it that the attitudes of the bureaucracy were dominated by the procedural rigidities of the law and order state and had not changed to meet the demands of new development responsibilities. What he wanted is that the bureaucratic ethos should change suitably to meet the demands of development responsibilities and the massive task of nation-building.

(H) Biju Babu's Stress On A Result and Target - Oriented Administration

Development administration is a result and target oriented administration. It seeks to carry out development programmes as quickly as possible and within a definite time frame. Biju Babu stressed upon this dimension of development administration both during his first spell of Chief Ministership in 1960s and in his

second spell in the 1990s. In course of an address in 1960s, he asked his officers to take risks in Orissa's interest and expedite the process of development. He had no faith in a system of administration where files move from one department to another causing unnecessary delays in the decision making process. Technically this method may be right so far as rigid adherence to rules is concerned but what made him more concerned was that it held up progress and development. In this connection he said. "What I would add is that he (the officer) may be right but the government cannot and I repeat can not appreciate his attitude. There is no prestige for any officer or any minister unless collectively we have pushed the nation to some place of pride."⁴⁶

Unveiling a statue of Mahatma Gandhi installed by the Puri municipality at Gandhi Ghat in the sea-beach on April 26, 1990, Biju Babu came down heavily on the officers belonging to I.A.S. and I.P.S cadres. He criticized them for only endorsing files submitted by subordinate officers with the remarks as proposed without recording their opinions independently and fearlessly. But more significantly he took them to task for wasting their time and energy in meetings only and delaying government decisions. I want officers to be independent and quick in taking decisions and implementing them.⁴⁷ he said. On may 26, 1990 he again outlined the thrust of his administration that it should stress upon achieving results in co-operation with people.

This focus on a result-oriented development administration and his almost fanatic commitment to speedy execution of development projects at times unconcerned of rigid adherence to rules was Biju's style of development. What irritated Biju was that the bureaucracy moves like

a passenger train and that priority and speed seem to be an anathema, pungency to it.'⁴⁸ It may be recalled that Biju during his first spell as Chief Minister wanted to build up the Paradeep Port with a jet's speed. But the more he longed to hurtle his dream project.... The more it was throttled and thwarted by do-delay for delay's sake attitude of the bureaucracy.⁴⁹ Even then he was the last man to tolerate it and inspite of stiff opposition of Orissa bureaucracy, he went on in his work and devised the ways to construct the Paradeep port quickly.

Regarding Biju's concept of development it has been said: Biju ideal of development, Biju idea of development and Biju notion of development is well manifested in the execution of the Paradeep port project. He was not sentimental or sober in regard to development of industrial projects. It is rumoured that he gave strict and whimsical instructions to all and sundry that people associated with the port construction work must not be stopped, obstructed or hindered.⁵⁰

The opposition castigated Biju for the highhanded and whimsical manner in which the twin projects Pradeep Project and Daitari Paradeep Express way were executed. It was alleged that the speeding trucks and the cruel contractors crushed many pedestrians and poor workers in the name of speedy execution of the project.

Biju response in the light of this criticism is significant "without semblance of regret or sense of remedy, Biju spoke clear-throated on the floor of that august house (Orissa Legislative Assembly) that one should not regret the loss of a few lives when a major development project was executed for the welfare of the masses of the state".⁵¹

(I) Biju's Vision: A Participative and People - Centred Administration

Development Administration involves greater participation of the people in the development process. It is people centred, responsive and accountable. Biju babu emphasized categorically on this participative orientation of development administration. He minced no words to say that government machinery alone can not boost the present economic condition of the state unless the people developed a sense of collective responsibility and actively took part in the issues concerning development.⁵²

As regards participation of the people in development process, what deserves further mention is that Orissa under Biju became the first state to streamline the Panchayati Raj and local-self Govt. institutions to make democracy participatory and not the aristocracy of a few nit-picking intellectuals.⁵³

During the colonial days bureaucracy behaved almost like overlords and showed little concern for people's welfare and development. They developed a power centric and egoistic mindset and kept aloof from the ordinary people maintaining a great distance from them. That this mindset should continue in certain sections of bureaucracy in the era of democracy and development administration was quite unbearable to Biju babu. He wanted to see a people - centred administration a responsive and accountable bureaucracy dedicated to serve the masses. He called upon District collectors to get out of their cages', deal directly with the people and solve their problems. In no uncertain terms, he reminded them that they are mere 'sevak of people and should always bear this spirit in their minds'. Even he as chief executive of the state described himself

as the chief butler and the people of Orissa as the masters who are supreme in a democratic setup. Accordingly, he cautioned them to be responsible and responsive and not behave as overlords or masters. The interest of the poor was to be the focal point of all their activity. He advised them to move out of their offices and go to villages to find out the problems of the poor. In his view, evolving schemes in the air-conditioned offices, bungalows and circuit houses would not solve poverty. The collectors must ensure that benefits of development really reach the people for whom various schemes have been evolved.⁵⁴

Those ideas are quite akin to the ideals of development administration which emphasizes upon a people centred, responsive and accountable administration. As it were, in his second spell of Chief Ministership Biju Babu showed remarkable concern for the poor and deprived lot who had either not made any demands earlier or their voice recorded in the corridors of power.⁵⁵ Showing his concern he further said. I would refuse to recognize the constitution of a country if I am poor. My idea of a constitution is that it should be the constitution of the poor masses. This concern for the poor and downtrodden led him to take the wage hike decision in march 1990 which was almost a personal decision of Biju Patnaik. By a stroke of pen, he immediately increased the wages for unskilled workers from the existing Rs.11/- to Rs.25/- per day with immediate effect. He took this decision, he said, by the suggestion of a poor old lady in a remote village in Bolangir district during the last Assembly Election.⁵⁶

Biju took also bold and outstanding steps to ensure participation of women in the Panchayati Raj institutions. "Before any other state

had come up with a policy on women, it is Biju who showed the path towards empowerment of women by reserving one third seats for them in Panchayati Raj institutions. It was certainly a bold, stimulating and decisive step which Biju took. It requires no further evidence that thirty thousand women in local bodies have come to assert their powers.⁵⁷

During his second spell of Chief Ministership women development became an over-riding consideration. A women bank and a commission for women were established.⁵⁸ The setting up of the Mahila Bikash Samabaya Nigam was another important step of Biju regime for the development of women. The objective of the Nigam was to promote entrepreneurship among the women, organize women in viable groups and support group activities and co-ordinate development programmes for women.⁵⁹

(J) Biju's vision: A Creative and Innovative Bureaucracy

Development administration calls for a creative and innovative bureaucracy which by its innovative ideas facilitate the process of development. Exactly and in the same vein Biju Babu exhorted his bureaucracy to do a great deal of original thinking in the realm of development. Addressing them he said, "You will find that you have to break away in a very large measure from all that you are used to do. This is not going to be easy. We are working under some positive inhibitions which we have to remove from ourselves and which have no value in modern standard. The only value which the modern world understands is achievement and visibly so."⁶⁰

During the second spell of Chief Ministership in 1990s Biju equally harped on the need of a creative and innovative bureaucracy.

Bureaucracy, in his view, should imbibe creative ingenuity' and their collective intelligence should be channelised for the development of state.⁶¹

What Biju possibly wanted is that the bureaucracy should think and ponder on the question of development and tender its matured advice to political executive to push the state towards the goal of prosperity". Writing only longest notes on files will not do. It hardly helps. What helps is their commitment, dedication, interest and motivation and becoming true advisors in the development drama.

(K) Biju's Concern for Human Rights

Before the 1960s, government organizations were emphasizing on attaining economy and efficiency. But with the expansion in the functions of government to cope with the complex problems and urgent demands of national development many development experts recognized that economic and efficient management is not enough and administration must be geared to the pursuit of new development goals. It has been said that development administration has to address it self to issues of human rights and equity and redistributive issues.

Biju was quite alive to the issues of human rights, justice and equity and took some steps in that direction. He had clear-cut and well considered views on terrorism, crimes against women and weaker sections of society which of course deserve consideration by lovers of democracy and freedom who put high premium on human life, human dignity and human freedom. This would be evident from his address at the conference on Human Rights on September 14, 1992 at Delhi and from his address on Administration of criminal justice on Nov. 13, 1992. His views on Human Rights may be

summarized as below.

(a) He castigated foreign organizations and their Indian followers who prioritize human rights of terrorists and secessionists but blissfully ignore the human rights of innocent people, men and women who become victims of terrorist bullets.

(b) As per his view, the onus of responsibility to uphold and defend human rights lies with the government. He seems to favour a pro-active and effective government machinery rather than constituting commissions and committees to protect the rights of Scheduled Castes, Scheduled Tribes or that of the rights of women and minorities.

(c) He had a sense of deep concern about the violation of human rights particularly by the police personnel. Incidents of custodial crimes or physical torture through third degree methods engaged his serious and special attention. Custodial crime is a very grave and serious offence and must be curbed regardless of the status of the offender. Apart from merely awarding punishment, he emphasized upon the need of building up the right mindset in the police force. He was against politicizing the police force for narrow political ends which emboldened them to violate human rights.

(d) He was no ivory-tower advocate of human rights but a down to earth realist. He rightly felt that human rights would be a marginal experience for the poor, weak and down-trodden unless there is an effective system of punishment of crimes.

(e) He was an ardent and passionate advocate of equal rights for men and women. In fact, crimes against women and other disadvantaged sections of society deeply concerned him.

(f) He focused on a strong administrative will to check violation of human rights of women and other disadvantaged sections of society.

(g) He dreamt of a social order in which the individual whatever his religion or caste, or sex or income status could live with dignity. He was, however, not unaware of the realities of the Indian situation as regards the position of a Harijan, a woman or a poor man. He was for a combined awareness drive across parties and groups, an awareness which will not condone any crime against a Harijan, a woman, a poor man or a person who calls his God by a different name.

So Bijubabu addressed himself to issues of human rights of particularly the weaker and poor people. The question of justice and equity rankled in his mind.

(L) Federalism and Development in India - The Biju Prescriptions

As a development administrator, Biju's two speeches one at the 18th meeting of the eastern Zonal Council held on 25th September 1991 at Bhubaneswar and the other at the meeting of the National Development Council on December 23, 1991 are extremely significant. They have their bearing on federalism and development in India. It breathes out in bolder relief his outlook and vision on the management of our federal polity and bring him out as a far sighted thinker and statesman.

The rise of extremist activity in some parts of Orissa and Bihar engaged his mind and attention. He made a serious probe into this and felt convinced that it would be wrong to equate it with terrorist activity elsewhere. He linked it with the broader issue of development. He possessed the maturity of a statesman to point out that extremism in eastern states is caused by poverty,

inequality and deprivation and should not be merely treated or tackled as a law and order problem. In his view this extremism could be more successfully faced when our political system, our federal polity and system of governance tries to establish an egalitarian, exploitation-free and equitable social order which guarantees the barest minimum to one and all. The Central Government can contain extremism by implementing a special programme of economic development to eradicate poverty and deprivation from those states. So development of under developed states needed special and specific attention by the central authorities.

The break up of the Soviet Union in 1990s was before him and in order to avoid such a situation in case of India's federal polity, he put up or he was for a new technique of political management. He emphasized on equitable regional development and development of under-developed states. He rightly realized that disparity in the matter of development may be a cause of discontent and tension among different states and 'may weaken our integral nationhood'.

He was for financial autonomy of states and decentralization of economic authority. It is not good to make the states excessively financially dependent on the centre making them 'charity boys' while they are performing functions of rural development and implementation of five year plans.

Another important suggestion that Biju made was that a state should have the freedom to arrange funds from abroad to bring about rapid development. 'The state government' he said, should be allowed to 'mobilise within the parameters of national, policy external resources. Talking about him and his own state Orissa he said': "I am trying to do so in areas of mineral development and energy production.

Biju Babu and controversies: an appraisal

Biju Babu conceptualized a holistic development agenda. In that holistic development agenda, growth, industrialization, ports and projects were ok and fine. But what still concerned him most was development with a human face - the vital need of prioritizing the interest of the poor and the down-trodden, a sizable chunk of which were denied the benefits of development.

The concern for the interest of the poor and the down-trodden and their development made him analytical and critical of the Bureaucracy and the system of governance as a whole. It propelled him to pounce upon the corrupt officials and officers with almost an aggressive posture. His objective analytical and critical sensibility even did not spare his own breed of politicians and their responsibility vis-à-vis the emerging issue of Naxalite violence which directly or indirectly was linked up with poverty, injustice and deprivation making one ponder over the whole spectrum of post-independent development scenario and the extent of its reach to the poor and the down-trodden.

In this connection, his anti-corruption drive with a call to assault corrupt officials and politicians and his views on Naxalites deserves a little elaboration more particularly because they created a spate of controversies. Over and above, Biju's controversial warning to the Centre for its neglect of Orissa and its development also needs mention if one is to remove the cobweb of misunderstanding.

Our parameter in regard to those controversies is to understand Biju; not merely to judge him with the eye of an all-out critic. Let us listen to the spirit and sincerity behind Biju's words and see what really moved him to say those words.

(A) Biju's Anti-Corruption Drive as Chief Minister

Biju with his long innings in politics and administration realized that corruption was one of the vital causes which hindered the benefits of development to reach to a major chunk of the poor and down trodden for whom they were meant. To ensure a clean and non-corrupt government, Biju took a very tough stand that he would be the harshest administrator in Orissa as far as curbing corruption is concerned. As a part of his anti corruption drive, Biju removed some corrupt officers at the top, organized searches of houses of many Engineers, I.A.S. and I.P.S. officers including the premises of the previous Chief Minister and many of his heavy weights. In his zeal to undertake anti-corruption drive, Biju government's decision to raid the Eastern Media premises of Sambad 'appeared to be vindictive and certainly tampered with the freedom of the Press'.⁶²

On November 29, 1990 Biju came down heavily on the State's bureaucracy dubbing it as corrupt and frankly expressed his feeling of helplessness to run the government. He urged the people to assault the corrupt officials to make them realized their mistakes and rectify themselves⁶³ and also asked them to give the same treatment to corrupt Ministers and M.L.As including him if found corrupt.⁶⁴

This obviously extraordinary and startling statement was vehemently criticized and even the Division Bench of the High Court observed that the Chief Minister Biju had transgressed his limits.⁶⁵ However, it appears to be the helpless outburst of a man who even as Chief Minister could not think it possible to root out corruption which like an octopus had spread its tentacles into the whole system of administration and

politics. Moreover, Biju who was no hypocrite in politics to shed crocodile tears for the poor and the downtrodden and who wanted to really do something for them found a corrupt, unconcerned and anti-people bureaucracy virtually a stumbling bloc not co-operating with him as much as it should. It is significant that a man of his doggedness frankly admitted that the administration under him was less responsive than what it was 30 years ago when he was Chief Minister first.⁶⁶ He found to his unhappiness and anger that it had now been divorced from the people.

(B) Biju Patnaik and the Naxalite issue

The massive naxalite attack launched recently on the town of Nayagarh-90 Kms from Bhubaneswar has sent shockwaves through out Orissa and the country at large. It happened to be the most serious case of naxalite violence in Orissa in which thirteen police officers and two others were killed. The Naxals also 'made off with roughly a thousand weapons stolen from the city's armoury, including sophisticated light arms. The naxalite threat needs to be taken with all the seriousness that it deserves and government of Orissa is doing its best in that regard with all sincerity.

It has been suggested in different quarters that there is 'need of greater co-ordination between security forces and intelligence wings of Naxal affected areas as well as between states and centre. The other suggestion being mooted is that 'along with policing other arms of state machinery need to act and reach out to tribal areas where Naxalites or Maoist insurgents are based. That means schools, roads, healthcare, easy credit, market access and other social welfare majors needed to mainstream India's tribals and poor'.⁶⁷

What is being talked of today was more or less indicated by Biju Patnaik in 1990s emphasizing particularly on the need of prioritizing development and welfare work for the poor and down-trodden in naxal affected areas or what Biju calls giving social justice which has been denied to them.

Biju was misunderstood when he expressed a sense of admiration of naxalites who as per his assessment at the time felt that they were working for the poor and the down-trodden in far off and remote areas deserving a little recognition. But then Biju was neither an advocate of violence nor condoned violence or killing of people though he tried to probe into the root cause of this Naxalite violence.

Biju was a statesman with a definite perspective standing head and shoulders above an ordinary politician. He was hardly prepared to judge the Naxalite question and their violence from only a law and order angle-from the angle of a security concern to be responded to as and when violence occurred and forget it thereafter without studying the problem in all its ramifications and thinking of it in terms of a long-term strategy. Possibly he felt that only by strong arms of the police and bureaucracy, the Naxalite menace could not be successfully tackled. Hence, he made a deeper probe into the cause of Naxalite violence becoming himself self-critical and raising and answering the question himself as per his own assessment.

His few words on the issue are as simple as simplicity could be but nonetheless pregnant with considerable significance. It eloquently speaks of Biju, the man, the real Biju in his heart of hearts and of course, Biju, the statesman. What he really indicates is the need of a more responsive administration, a people- friendly governance with

a good welfare package for the tribal poor and down-trodden people. Possibly, he felt that, that could strike at the support base of Naxalites and win and integrate the poor and the tribals into the national mainstream.

In this connection his sincerity for the uplift of the poor and downtrodden in his second spell as Chief Minister was simply amazing. It really touches and straightway enters the heart when one reads between his lines "He asks why the Naxalites have taken to violence"? And he answers "only because we are not able to give them social justice. In the areas where they are active either God or Naxalites will come to uplift the People".

On 4th January, 1991 he said, "I want to handle them (Naxalites) by being a revolutionary myself. Why the hell not? What is so wrong in a Chief Minister being a revolutionary? What is so right as a Chief Minister being corrupt and a hypocrite shedding crocodile tears for the downtrodden? Have we not seen enough of the type in this country of ours, whether of Left, Right or Centre?"⁶⁸

This was Biju Patnaik, the Chief Minister of Orissa, the development-centric Chief Minister of the sixties who possibly now was conceptualizing the idea of development with a human touch - a development that has got to be addressed in right earnest to the poor and down trodden 'who had not made demands earlier or their voice recorded in the corridors of power'.

When Biju Patnaik asked the people to beat up anti-people and corrupt officials and politicians and even admired the Naxalites, he was only faithfully voicing the just feeling of the people who have been denied the benefits of the independence and democracy they obtain in this motherland of theirs.⁶⁹

(C) Centre's neglect of Orissa and Biju's warning

A few months after his second year as Chief Minister in 1991, Biju was deeply concerned with the Centre's neglect of the state's plea in certain areas. That included permission for an integrated steel plant, development of Railway projects and Paradeep port. This enraged Biju to throw a missile-a warning that Orissa should 'secede from India if it was not granted financial autonomy'. It created a spate of misunderstanding in certain circles raising their finger at Biju's nationalist credentials. However, it was more a pronouncement of anger against the step-motherly attitude of the centre towards the state and more the articulate outpourings of a state autonomy activist than any real intention to secede from India. What he was trying to apprise the centre was that in the Indian federal system the states should be given appropriate authority to develop their state rather than being made a victim of the excessive power and authority of the centre which in his opinion has given rise to strong fissiparous tendencies.

It was believed by Biju that "unless the states become strong, India can never be a strong nation. That is why when he fought for Orissa's development, it was not by reason of any narrow consideration but to make India stronger as a whole. He realized that true federalism will result in strengthening India's unity in diversity and will hasten the pace of progress of our nation as a whole".⁷⁰

Biju was after all Biju. He was unique and different. He said what he felt and what spontaneously came from his heart. He was bold and fearless and talked without ifs and buts. Nothing deterred him. Consequences hardly bothered him. It led to misunderstanding and

controversies. But, then he talked sense, talked truth and truth in its most naked form. May be, we were not prepared to see it. He said, people will remember me and my words when I die and leave them. It is indeed true and true in a large and substantial measure.

Biju Babu - Generator of constructive ideas and vision

Biju Babu was not an economist in the professional sense of the term but he was more than an economist having made definite forays into the realm of industrialization, planning and development that would surprise even experts in the field. He had more or less the mind of a supersonic jet that could quickly grasp over a problem and bring forth ideas and vision which were pragmatic and far-sighted.

Some of those ideas which are thought-provoking have definite relevance in the realm of development. As a legislator and parliamentarian he showed all the traits of a thinker with an analytical and critical mind. His speeches concerning industrialization, planning, development, public and private sector and on cottage industries etc. vibrate with vibrant ideas. His views on the relationship between Legislature, Executive and Judiciary and their role, views on our parliamentary democracy, federalism and electoral process brings out the depth of his analytical mind. Those were pragmatic ideas with a functional perspective intended to better up things either in the realm of development or in the working of our parliamentary democracy. All this and many more demand a special treatment on a different occasion beyond the purview of this article and its constraints.

Conclusion

Biju Babu is a Chief Minister with a development - centric mindset. His vision was an

industrialized Orissa and an Orissa which is developed and prosperous. He wanted that his development agenda and goals be achieved quickly and within a definite time frame. His vision of administration was a creative and innovative bureaucracy who would be not experts in writing the longest notes on files but a bureaucracy with original and innovative ideas of development which would help facilitate the development process of the state and take it to greater heights of excellence. As it were, his over-riding motto was development of his state and to realize that, he was not prepared to be bound down by an inflexible and rigid adherence to rules which slows down or causes unnecessary delay. He had a go-ahead, and getting-the-work-done mentality for the causes of his state's development and progress. He tried to cleanse and streamline the administration and energise and activate the bureaucracy by persuasion, warning and even threat some times getting himself desperate. But behind all this was his concern for the development of his beloved state and providing its people a people - friendly administration which is responsible, responsive and accountable. His vision of Bureaucracy and administration; his ideas on our federal polity and development of the states even though neither profound or original, are pragmatic and of course do have a relevance of its own for the development of not only his state but for the development of the country as a whole. If any thing, those words are sincere and came out of a man who was actively concerned with governance and development both at the state and central level for a good number of years.

During his 27 months of Chief Ministership in the 1960s, Biju was primarily concerned with the industrialization and over-all development of the state. The construction of the Paradeep Port

and the Express Highway, the setting up of the Sunabeda Mig Factory, the Talcher Thermal Power Station and the Balimela Multi-purpose Project, etc., bear the unmistakable imprint of his personality as a development-centric Chief Minister. It was a most fruitful 'period of engineering and construction' and even his harshest of critics would admit that he proved to be a dynamic Chief Minister whose short spell of only 27 months heralded a new era of industrialization and over-all development of the state. It may not be far from truth to state that no other Chief Minister of Orissa after him nor he even himself in his second spell as Chief Minister in the 1990s could repeat such dynamism in the arena of industrialization and over-all development of the state. The feverish pitch of industrial activity and the launching of giant industrial projects which marked his first spell as Chief Minister may be regarded as the golden period in the history of Orissa's industrialization and Biju Patnaik may rightly be regarded as a the pioneer of industrial renaissance in Orissa.

Biju's second spell as Chief Minister in the 1990s cannot hold a candle before the dazzling light of the achievements made during his first spell of the 1960s in respect of industrialisation and development; nevertheless he will be fondly remembered for his steps in the field of women development, reorganization of districts, for his sincere efforts to streamline and rejuvenate the Panchayati Raj and local-self Government institutions and more particularly for the pro-poor orientation which he sought to give to his second spell as Chief Minister.

In his second stint as Chief Minister, Biju Patnaik of course 'was not able to materialize the

steel plant in Orissa'; but it is also a fact that he laid the infrastructure for the steel plant at Duburi'.

Biju had the vision of an industrialized Orissa—a prosperous and powerful Orissa. What he had always in mind was to lift his beloved Orissa from backwardness and poverty. He made untiring efforts for this whether in power as Orissa's Chief Minister or outside when out of power. He did a lot for Orissa during his two spells as Chief Minister. He was always prepared to fight with the central authorities where the interest of the state was concerned. It is doubtful whether a personality of Biju's stature will ever emerge in Orissa politics to steer the ship of the state. Let his vision of Orissa inspire all of us to put in our best to build up a prosperous and powerful Orissa.

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The memorable year 1817 is a landmark not only in history of Odisha but also in Indian history. In this year Paiks of Khurda and people of some area of Odisha raised their strong voice against mighty Britishers, which is known as Paik Rebellion. The rebellion 1817, according to some scholars is the first war of independence. Another group of intelligentsia regarded it as the resistance movement. The revolt of 1817 in history is the first direct challenge to Britishers by the people of Odisha. That heroic incident had happened forty years before the historic Sepoy mutiny of 1857. Foreign Historians have not given proper place to that great rebellion of 1817. The Paik

the Paiks had played a vital role for the outbreak of that revolt. But the revolt was widely supported by the feudal chiefs, Zamindars and common people of Khurda. So, many kings, feudal chiefs, and Zamindars had provided their hearty support to that movement. The common people had joined in that famous rebellion due to injustice, corruption of British Government. There was no cordial relation and good faith between the public and British authority. In the course of rebellion the general people had provided food, shelter and other helps to the rebellious Paiks. Without support of the common people that rebellion could not touch the top of the success. The rebellion of



The Paik Rebellion of Khurda of 1817

Pabitra Mohan Barik



rebellion of 1817 was originally a revolt of Paiks under the leadership of Bakshi Jagabandhu Bidyadhar Mohapatra Bhramarabar Ray. The great Paik rebellion 1817 was a tremendous event which influenced the political situation of Odisha and created some nationalist leaders who fought vigorously against Britishers in later period. There is no need of doubt, it is national movement where several factors are responsible to say 1817 rebellion of Khurda is the first war of independence. Though the rebellion had its origin in the grievance of Bakshi Jagabandhu in particular and the Paiks in general. The Paiks of Khurda were worst sufferers by Britishers. So

1817 of Khurda is a mass movement. All supporting forts of Khurda had come forward to support the rebels in that critical period. Paiks as well as common people of remote places like Kanika, Kujanga and Pattamundai also took part in that revolt. The revolt started from Banapur and Khurda but later it spread to other areas like Puri, Pipili, Cuttack and remote villages. Bakshi Jagabandhu also got support from the Rajas of Kanika, Kujang, Nayagarh and Ghumusur. Bakshi and his followers were affected by the land settlement after the British conquest. The important cause for rebellion in Khurda in 1817 was the land revenue policy of Britishers. The

Paiks enjoyed rent free land tenures for their military service on a hereditary basis. Those service lands were taken away in the settlement by Major Fletcher as their service were not needed. The land revenue policy of the British affected the Zamindars as well as ryots. The increase in the price of salt is another main cause for that great event. The common people that time were unable to buy the salt with heavy price. The depreciation and abolition of Cowrie currency was the cause of the discontent before the rebellion of 1817. The tribals of Banapur and Ghumsur had accepted Bakshi Jagabandhu as their leader and they bravely marched towards Khurda to fight against colonial power with high ambition. All sections of society were harassed by the British power. When the Kandha of Banapur started their revolutionary activities and they became successful, the English historian Toynbee pointed out that "their success at Banpur had set the whole country in arms against us and seeing the hopelessness of resistance, the whole of the Government officers stationed at Khurda sought safety measures". The rebellion of 1817 of Khurda is a national movement as various sections of society actively participated protesting the mighty Britishers. In that period many Muslim fighters also supported Bakshi Jagabandhu. Among them the prominent one was Dumuduma Dalabehera Mirhaidar Alli who was living in Jadupur. Trower Saheb the Collector of Cuttack has described that many Zamindars and tributary chiefs had joined the rebellion. So the success of the rebellion came out. The people particularly from Khurda area extended their support to the rebellion for the dissatisfaction with the British administration. The rebellion of 1817 was a preplanning and well organised event. The Zamindars of Karipur, Mrichpur, Golra,

Balarampur, Budnakera and Rupasa joined hand with Paiks. The British historian Toynbee had given his opinion about the great rebellion of Khurda of 1817. "It was not long however before we had to encounter a storm, which bursts with such sudden fury as to threaten our expulsion if not from the whole of Odisha at least from territory of Odisha." According to another British officer named W.Ker, "the Rebellion of 1817 of Khurda was a freedom movement in following words "Jagabandhu has given a lead in organizing a movement, no matter in how haphazard manner for ousting the newly established English from Odisha, he expected that other people who were also hit hard by the mal-administration under the English and the Odisha chiefs who had been deprived of all their freedom would follow up the lead to make a common cause for the purpose of liberating their motherland from foreign yoke." The rebellion of 1817 became a source of inspiration of nationalist leaders. The impact of the rebellion of 1817 was far reaching. The heroic performance of Paiks during the time of great rebellion created national awareness among the common people. The great sons of Khurda Godavarish Mishra, Godavarish Mohapatra, Pranatha Pattanaik, Sachi Routaray, Gangadhar Paikaray, Gokul Mohan Rai Chudamani and Purna Chandra Mohanty were greatly inspired and became fearless freedom fighters. The rebellion of 1817 is the landmark in the history of Indian freedom struggle and source of inspiration for the future generation.

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Science and Technology are just like two sides of a coin. The existence of one without the other is meaningless and baseless. The science in regional knowledge is Vigyan means specific knowledge. During medieval period it is known as *sinz, sayens, siens* means “knowledge”. In western scenario “Science” came into use after 1300 A.D. which means knowledge acquired by “Study”. It also includes studies of art. In India S&T is much older than modern science in European countries, which is 500 years old from the time of Copernicus. In 1800 A.D. some notions of methods are attached to science. During this

Association for the Advancement of Science (BAAS). A British philosopher felt that there does not exist any sort of work for the personnel working in the field of science, then only he coined the term “Scientist”. “Technology” is the roof from Greek word “*techne*” means skill, whereas science root comes from Latin word “*Scientia*” which means “knowledge”. So Technology is the collection of techniques, skills, methods and processes used in the production of goods or services. It can also be defined as the study of knowledge of the practical, especially industrial, use of scientific discoveries or the application of



Science and Technology in Ancient India

Basanta Kumar Das



period philosophy also seen as a methodological study which led to knowledge. It was first referred to as “natural philosophy” where different philosophers, saints and Rishis have a lot of contributions, i.e. Aryabhatta, Barahamihir, Bramhapupta, Bhaskara, Lala, Boudhayana, Manaba, Pingala, Jabaneswar, Kanada, Mahaveer, Shreedhar, Shreepati, Bramhadev, Harishchandra, Charak and Shusruta etc. Technology follows science; if science becomes engine, then technology is compartments. Science may be individual, but technology includes team. The term science being used today commenced in the year 1931, just after the foundation of British

scientific knowledge for practical purposes. The meaning of technology was first recorded in 1859.

Different branches of science are Physics, Astronomy, Astrophysics, Biology, Computer Science, Optics, Chemistry etc. Different branches of technology are Mechanical technology, electronic, Biotechnology, Nanotechnology, Nuclear technology, Hyper loop technology, laser technology, Eco-technology, Robotics etc.

Science is nothing but well-trained and systematic wisdom, whereas technology is the application of science or nature’s laws to achieve

certain targets, Newton's 3rd Law of Motion is used to build rocket technology for space travel and tourism. Science and Technology can be understood in different ways i.e. Science & Technology (S&T) as concept, S&T as method, S&T as title, critical thinking, criterion for demarcation, inquiry, thinking and doing, narrative, political, sociological, economical, cultural, logical, realistic, experimental and global... etc.

There was acute symbol of S&T in Mahenjodaro and Harrappa Civilization in general and from 1st century till date in particular. During the regime of Kharavela, Ashok, Prataprudra Dev and Languda Narasinghadev S&T was prominent, perfect and powerful in Odisha especially in Cuttack and Puri district area. Oral communicative skills transformed into written formats especially on copper plates, barks different leaves, stones, mud and mud pellets burnt by fire from 1200 to 1300 A.D.

They composed different concepts and themes on mathematics, astronomy, medical science, agriculture, technology of transport and sailing. Numismatics, sky watching observation of different weather and climatic conditions were also their thrust area.

There were five communication philosophies in about 200 B.C., i.e. the main Policies of Communication (S&T) were basically divided in to five parts, i.e.

1] Sahridaya 2] Sharing 3] Rasa Utpathi along with Rasa Aswadan 4] Sadharanikaran 5] Asymmetrical.

According to Chhandogya Upanishad the four Vedas, history & epics, logic, arithmetic or Rasi, Units or Ekayana, Science of elements or

Bhuta Vidya, military science or Kshatra Vidya, astronomy or Nakshatra Vidya, knowledge related with flora and fauna (from grass to green forests). Invention of wheel, pulley, knife, pestle, mortar, cup, saucers, ladles, kettles, and spoons, bricks, cement, plaster, etc. were introduced as building materials.

Fire Technology:

The discovery and fire technology in ancient India is really, radical, rational and reflective. The Atharvan was the first who discovered Fire. Fire then led to boiling of milk and other milk products, like *ghrita*. Then came domestication of animals and later from dead animals tanning technology came into existence.

Bricks Technology:

Bricks were produced in shapes and sizes using "Sulba Sutras" with respect to rectangular, square, cube, round and other different geometrical sizes.

Metal Technology or metallurgy:

Metals were extracted from ores. Different armaments and weapons were built for hunting and self defence. Even if coins were made up of from silver, gold, copper, brass, bronze, aluminium, steel and other alloys during primitive period as well as Moghul regime. Temple peaks were decorated by different type of *chakras* and *astadhatu*.

Charak Samhita preaches different aspects of curing diseases. Goutam Buddha preaches that one should not believe on what the teacher teaches without experiencing it practically and pragmatically.

An analysis of S&T in Ancient India was attempted by Indian National Science Academy (INSA), New Delhi and the volume edited on title “A concise History of Science in India” is very much useful. The best utility of Charak Samhita consist of 150 chapters in eight categories ‘materia medica’ with over 600 drug compositions of plant and even of animals and mineral roots.

Ancient India contributed a lot to S&T in general and zero in particular. The symbol zero plays a crucial, critical, creative and clear crystal role in the field of mathematics and different mathematical operations.

Binary numbers are the cardinal and crucial basic language by help of which computer programmes are written. The ancient Vedic scholar, Pingala described this in his CHHANDASHASTRA in Sanskrit.

Similarly measurement system was there in ancient India, namely “**hasta**” used in different architecture of India especially in South India. Drainage system, use of bricks in construction of houses, temples, mosques, universities (Ratnagiri, Puspagiri, Udayagiri, Khandagiri, and Dhauligiri etc.). In 19th Century John Dalton suggested ‘anu’ the smallest indestructively particle of matter just like an atom, which was propounded by Kanad Rishi much earlier. Kanad told about dwanuka and trayanuka (diatomic and triatomic). Aryabhatta book narrates about astronomy as well as eclipse of Sun and Moon. Wootz Steel is contribution of ancient Indians. Medicines, Modakas, curing different ailments by Ayurveda, water conservation in sagar, Talab Bandhi,

Jhalara, Bawaris, Taanka, Johads, Kund, Baoli, Zabo etc were too very popular in the past. Architectural designs were there which construct and cool the building or rest shed at a time. There are different types of scientific and technological means in the field of S&T which is emerging day by day. But the importance on basic science is to be stressed upon. For that purpose different schemes and policies are adopted to attract the students, researchers and young scientists now. NISER, IISER, IITs, INSPIRE, KVPY and other different scientific institutions like CSIR, IIS, CDRL, CFTRI, ICMR, AIIMS, BARC, TIFR, DRDO, VP, NIC, ICAR and DST are designing different schemes to attract the scientists, students, researchers, Technologists and entrepreneurs to the new area and era of S&T. There is no doubt in future India will be S&T hub in the world, but time will come when technological developments will be ceased if basic science scenario will be just like now in the world. All the people related to S&T must give thrust upon this to avoid panic in future.

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Address of Hon'ble Governor of Odisha Prof. Ganeshi Lal to the Odisha Legislative Assembly

Mr. Speaker and Hon'ble Members,

It gives me immense pleasure to welcome all of you to the Fifteenth Session of 15th Odisha Legislative Assembly. Let me take this opportunity to extend my heartiest New Year Greetings to all the Hon'ble Members of this August House as well as to the people of Odisha.

1. This August House has expressed its deep condolence on the sad demise of Late Atal Bihari Vajpayee, former Prime Minister, Late Somnath Chatterjee, former Speaker, Lok Sabha, Late Muthuvel Karunanidhi, former Chief Minister, Tamil Nadu, Late Jadunath Dash Mohapatra, former Minister, Late Dolagovinda Pradhan, former Minister of State, Late Prasanna Kumar Pal, former Government Deputy Chief Whip, Late Surendra Pradhan, Late Suryamani Jena, Late Braja Kishore Mohanty, Late Muralidhar Kuanar, Late Banshidhar Sahoo, all former Members of this August House, Late Sanjaya Majhi, Ex-Constable, Odisha Police, Late Champeswar Mahakud, Ex-Rifle Man, 29, Assam Rifles, Late Braja Mohan Behera, Ex-Driver, CRPF, Late Achyutananda Sahu, Ex-Cameraman, Doordarshan. I request Hon'ble Members to join me in paying tribute to Late Chaitanya Prasad Majhi, former Minister, Late Nityananda Garatia, Late Raj Kishore Pradhan, Late Parsuram Panda and Late Ratna Manjari Devi, all former Members of this August House, Late Hemanta Kumar Panda, Ex-Lance Naik, 46, Rashtriya Rifle. The House may convey our heartfelt condolence to the bereaved families of the departed souls.
2. Odisha's transformational journey since 2000 has been remarkable. Odisha was then not known for efficient handling of natural disasters and precious lives were lost. The State is now recognised for having set global benchmarks in disaster management. Odisha's farmers were then doing subsistence agriculture. Now, we are an agriculturally progressive State which has won KRISHI KARMAN Award five times during last seven years. In fact, Odisha is the only State in the country which has doubled farmers' income in real terms in the last one decade. We were then a foodgrain-deficit State dependent on the Central pool to feed our people. Now, the State is among the largest contributors to the PDS and is playing a major role in the food security of the nation. We were then a State having abysmal record in IMR and MMR. Odisha has made a quantum jump by achieving the sharpest decline in IMR and better than the national average decline in MMR. Odisha was then in a state of financial bankruptcy, not being able to pay the salaries of its employees. Now, the State is known for excellence in the field of financial administration. Odisha was then known for acute poverty. The State has shown the way to

others by bringing about the highest poverty reduction in the country of 24.61 percentage points in less than a decade. Odisha was then not known much for its industrialisation. Now, the State has one of the highest industrial growth rates in the country and has been among top three States in attracting live manufacturing investments.

3. Odisha's performance in many sectors has been phenomenal. It is now the leading State in the country in rural housing having completed a record 20 lakh houses since 2014. A record number of 6 lakh girl students are studying in our educational hostels. Our vibrant Mission Shakti movement, with 7 lakh women SHGs comprising of 70 lakh women, is transforming the socio-economic landscape of Odisha. Our flagship health initiative, Biju Swasthya Kalyan Yojana, is unique in providing near universal health coverage. We have our own State Food Security Scheme ensuring coverage of every deserving family. We are providing pension to more than 48 lakh persons, which is the highest coverage in terms of percentage of population in the country. We lead the country in providing land rights to our forest dwellers. Special Development Councils have been set up in 9 tribal dominated districts to focus on preservation of culture, tradition, heritage and unique identity of 62 tribal communities and 13 PVTG's. Since 2014, we have created additional irrigation potential of about 8 lakh hectares and we will surpass our five-year target of 10 lakh hectares by April, 2019. Bhubaneswar topped the Smart City challenge in the country. Odisha has now emerged as the Sports Capital of India. "Skilled in Odisha" is now recognised as a global brand.
4. My Government has introduced KALIA (Krushak Assistance for Livelihood and Income Augmentation), scheme to further accelerate agricultural prosperity and reduce poverty in the State. This scheme is progressive and inclusive. It covers 92% of the cultivators, loanee as well as non-loanee farmers, share croppers (actual cultivators) and landless agriculture labourers. It also specifically takes care of vulnerable agricultural families identified through Gram Panchayats and makes interest free crop loans. Besides, all cultivators and landless agricultural labourers will be provided life insurance and personal accident insurance cover of Rs.2 lakh each. Already over 12.45 lakh small and marginal farmers and about 58,000 share croppers have been provided assistance @ Rs.5,000 each amounting to Rs.652 crore. The amount has been transferred to their accounts during January, 2019 through DBT mode.
5. Production and productivity of rice has doubled since 2001-02. Odisha Millets Mission has been launched in the State in 11 tribal districts and 55 blocks covering 16,000 hectares to preserve local diversity of millets.
6. My Government has launched the Odisha Organic Farming Policy, 2018 with the objective of leveraging Odisha's strength in organic farming and expand the area under organic practices. A progressive Farmer Producer Organisations Policy, 2018 has also been launched to assist in the aggregation of farm produce and improve the market linkages.
7. My Government has introduced "Mukhyamantri Abhinav Krushi Jantrapati Samman" awards to the farmers for innovation in farm implements. "Mukhyamantri Krushi Udyog Yojana" has also been launched to provide single window facility for establishment of agri-enterprises.

8. My Government has optimized the potential of cooperatives by revitalizing a wide range of services like crop insurance, paddy procurement, efficient management of warehouses, agricultural market reforms and developing the PACS (Primary Agricultural Cooperative Societies) as one-stop destination for all agricultural inputs at the Gram Panchayat level for the farmers in general and weaker sections of the State in particular.
9. My Government has taken steps for conversion of all the Kisan Credit Cards into Ru-Pay Kisan Cards to enable the farmer members to access their sanctioned loans through all types of ATMs.
10. My Government has now been providing crop loans to farmers upto Rs.50,000 at 1% rate of interest, which has been reduced to zero percent with effect from 1st April, 2019. The small, marginal and landless share croppers and rural women have good access to hassle free credit from financial institutions without any collateral security by organizing Joint Liability Groups.
11. Computerization of all PACS in the State is a flagship programme of my Government. So far, 1179 PACS are already running online with Data Centre of Odisha State Cooperative Bank and the process for remaining PACS is going to be completed soon.
12. My Government has provided about 60,000 mobile phones to farmers across the State to access market and other relevant information. As a part of the Agricultural Marketing Reforms, my Government has decided to set up more number of e-platforms for e-trading facilities in the State.
13. I am glad that my Government has stood firmly with the people of Odisha on the Mahanadi and Pollavaram issues and will continue its strong resolve to protect the interests of the people of Odisha.
14. My Government has always endeavoured to make the State drought proof through a holistic approach of developing, conserving and utilising the surface and ground water resources.
15. My Government has completed 67 Mega Lift Irrigation Projects, energised and handed over 53,992 Deep Bore Wells to farmers and 6,059 Community Lift Irrigation Points to Pani Panchayats. That apart, 8,757 Check Dams in different nallahs have been constructed to conserve water and consequentially bring additional area under irrigation.
16. My Government has completed four major and medium irrigation projects namely, Rukura, Upper Indravati Extension, Ret and Titilagarh Irrigation projects. Two other major & medium projects namely, Lower Indra and Telengiri are going to be completed soon.
17. My Government has restored all the embankments and canal breaches in the districts affected by TITLI cyclone. 1760 Lift Irrigation points were also restored on war footing.
18. By introduction of various programmes to attain self-sufficiency, my Government is heading towards an average annual growth of 13% in inland fish production by 2020-21.
19. My Government is providing livelihood assistance of Rs.7,500 per family to 5,000 fishermen families, who are affected due to ban in fishing for sea turtle conservation.

20. With a view to provide nutritional security and financial empowerment, my Government has tagged about 1650 Women Self Help Groups with GP tanks for practising pisciculture in the water area of about 1575 hectares with 60% subsidy assistance during 2018-19.
21. My Government has provided interest subvention of 3% on term loans to about 10,000 farmers during current year under a new scheme “Interest Subvention on Long Term Credit Support for Livestock Farming”.
22. With the implementation of various Dairy Development Projects, Odisha has become self sufficient in milk production and we are now procuring about 5.50 lakh liters of milk per day.
23. My Government has successfully delivered the benefits of the National Food Security Act to 86.90 lakh families consisting of 322.39 lakh individuals under Priority Households (PHH) and Antyodaya Anna Yojana (AAY) categories. In order to cover poor, distressed and left-out eligible beneficiaries of the National Food Security Act under food security, my Government had launched its own State Food Security Scheme across the State on 2nd October, 2018. More than 23 lakh beneficiaries have already been covered under this scheme, who are getting 5 kgs of rice per person per month @ Re.1 per kg.
24. Odisha has been a pioneer State in rural housing. We have already completed more than two million houses during last four years and my Government is committed to convert all kutcha houses in rural areas of the State into pucca houses within a definite time frame.
25. To provide adequate safe drinking water to both urban and rural habitations, a new scheme namely, “BASUDHA” (Buxi Jagabandhu Assured Drinking water to all Habitations) has been made fully operational since 2017-18, as a tribute to the eminent freedom fighter of Odisha, Buxi Jagabandhu, in the bi-centenary celebration year of the Paik rebellion.
26. A path breaking pro-people initiative ‘Ama Gaon Ama Bikash’ has been completed in all 314 blocks of the State. 62,857 projects in 6,798 Gram Panchayats amounting to Rs.1554 crore have been sanctioned by the Chief Minister directly after discussion with the villagers through video conferencing. This initiative of the Government is being hailed in the country as a unique people-connect programme.
27. Odisha has launched Peoples’ Empowerment Enabling Transparency and Enhancing Accountability on Odisha Initiatives (PEETHA) recently to make people aware about different Government initiatives and ensure delivery of entitlements to the eligible beneficiaries in different schemes. PEETHA camps are being organised at Gram Panchayats and Wards in the Urban Local Bodies from 15th to 20th of every month.
28. With ‘Biju Swasthya Kalyan Yojana’ the State has achieved the objective of near universal health care in Odisha through ensuring universal access to equitable, affordable and quality health care services. Under ‘Biju Swasthya Kalyan Yojana’ (BSKY), my Government has assured about 70 lakh families (3.5 crore people) with cashless assistance of Rs.5 lakh per family per year with additional Rs.2 lakh for the women members of the beneficiaries’ families.

29. My Government has launched numerous new schemes and interventions in health sector, i.e. Free Diagnostic Services–Nidaan, Free Dialysis Services – Sahay, Universal Eye Health Care Programme – Sunetra, Specialist Services in Urban PHC / CHCs – Ama Clinic, Strengthening of Ancillary Services – Nirmal, ASHA Matrutwa Yojana, Transport Assistance to Blood Disorder Patients, ASHA Kalyan Yojana, Nutrition Support to TB Patients, Drop Back Assistance to Delivery Patients and Sick Infants etc.
30. The overall transformation of public health facilities in the State has resulted in increasing people's faith, trust and dependency on these facilities and has been acclaimed at various National and International forums. Odisha has received National Award for securing 2nd rank among all States for maximum improvement in OPD services in public health facilities during the period 2016-17 to 2017-18. Odisha has the highest percentage (91%) of population relying on public health sector for health care.
31. Institutional deliveries in Odisha have increased from 22.6 % in 1998-99 (NFHS-2) to 85.4% in 2015 (NFHS-4), which is also better than national average. The State has also made significant achievement in population stabilization measures by reducing the Total Fertility Rate to 2.0, which will contribute substantially towards accelerating the socio-economic development of the State.
32. Odisha is a model State in effecting sharpest decline in Malaria that has been acknowledged globally by WHO. Odisha has recorded the path breaking decline of over 82 % in reported malaria cases and of over 87% in reported malaria death incidences between 2016 to 2018.
33. The number of MBBS seats in the State has increased from 450 to 1050 through establishment of 4 new Government Medical Colleges. Another five new Government Medical Colleges are also coming up shortly at various distant and remote locations. Several other steps have been taken by my Government for strengthening the human resource for the Health Sector including cadre restructuring, Place Based Incentives for doctors, corpus funds for difficult areas, transparent exit policy and creation of over 2500 posts of doctors, 400 posts of Dental surgeons and 5719 posts of paramedics.
34. Under Supplementary Nutrition Programme (SNP) the State has covered over 46 lakh beneficiaries with revised menu having increased calorie and protein content, even above the Government of India standards. In order to increase dietary diversity 'Ragi ladoos' will be provided to Anganwadi children in collaboration with Odisha Millets Mission soon.
35. Under MAMATA, a flagship scheme of my Government, conditional cash transfer amounting to Rs.1655.28 crore has been provided to 35.69 lakh pregnant and nursing mothers since inception.
36. Three lakh new groups have been added to the Mission Shakti movement of the State, thus making it a 70 lakh women empowerment initiative federated in 7 lakh Self Help Groups. Mission Shakti is empowering these groups by providing seed money, digital empowerment assistance and loans up to Rs.3 lakh at zero rate of interest to pursue high cost income generating activities.
37. The children of the Child Care Institutions of Odisha emerged champions bagging 14 Gold, 4 Silver and 5 Bronze medals in "Hausala-2018", Government of India's annual inter-State sports

competition. Further, this year four children were selected by Government of India for the National Bravery Awards, 2018.

38. My Government is committed to social security and empowerment of the vulnerable sections of the population. We have 5 lakh new beneficiaries under 'Madhu Babu Pension Yojana' during this year. Pension is now provided to over 48 lakh persons covering the highest proportion of population amongst all States in the country. The monthly rate of pension has also been enhanced by Rs.200 per month.
39. My Government is aware of the rich tradition of handlooms and handicrafts in the State and has accordingly initiated programmes for holistic development of the sector. My Government has constituted the Odisha Handlooms and Handicrafts Development and Promotion Council for sustainable upliftment and inclusive growth of weavers and artisans of the State. The Council shall undertake promotional activities to boost the sale both handlooms and handicrafts products of the State and shall also advise the State Government for framing policies for betterment of the weavers and artisans.
40. My Government has taken steps for setting up of Bunakar Bazars at Balijury and Baragarh and for revival of Kotpad Textiles. Under "Baristha Bunakara Sahayata Yojana" my Government has made a provision of monthly financial assistance to the aged weavers as a social security measure.
41. My Government has dedicated Odisha Crafts Museum to the people of Odisha on 22nd March, 2018. It is the only State owned Museum in Eastern India showcasing multi-faceted, rich and vibrant traditions of handlooms and handicrafts. All out efforts are being made to develop the Museum into a vibrant cultural place. It has become a must-visit destination for tourists and school children alike with crafts workshops, crafts bazaars, guided tours etc. being organised regularly.
42. My Government has introduced "Mukhyamantri Kalakar Sahayata Yojana" to provide financial assistance to fifty thousand artists @ Rs.1,200 per month.
43. The promotion and propagation of Odia language and the cultural legacy of the State has been a continuous endeavour of my Government. For the first time a Heritage Cabinet was constituted by my Government to protect our rich heritage and legacy. The Heritage Cabinet in its first meeting decided to set up an Odia University at Satyabadi.
44. In order to celebrate 150 years of Mahatma Gandhi's birthday, my Government has constituted a State level Celebration Committee to plan and proceed with the biennial celebration. To commemorate the 200th year of Paika Rebellion, a postage stamp and a commemorative coin was released.
45. My Government is keen to establish one Odisha Adarsha Vidyalaya in each Block of the State to provide the opportunity of quality English medium education to the students in rural areas. So far, 190 Odisha Adarsha Vidyalayas have been opened in 28 districts and 51,309 students are availing quality education in these schools.
46. State Institute of Open Schooling has been started in 344 centres covering all 30 districts of Odisha to encourage school dropouts and similar category of children who have left school and

are deprived of formal education to enable them to pass secondary level and earn livelihood opportunities. So far, 63,904 students have taken admission and HSC Pass Certificates issued to 37,064 students.

47. My Government has provided for Vocational Education in 314 schools of 314 blocks, wherein 24,885 students have taken admission.
48. School Uniforms have been distributed to nearly 48 lakh students of Class I to VIII in the year 2018-19. My Government has also made a budget provision of Rs.152.65 crore for distribution of free bicycles to about 6 lakh Class IX students during this year, which is nearing completion.
49. In 2018-19, my Government has introduced 3 new awards, namely Mukhyamantri Medha Bruti, Odia Bhasa Bruti and Best School Award and Felicitation for talented students, quality schools and good parents of successful students. Under Mukhyamantri Medha Bruti, a one time scholarship of Rs.5,000 is awarded to 35,490 students @ 100 students of each Block, 100 students of each Municipal Corporation, 50 students of each Municipality and 20 students of each NAC.
50. Under Odia Bhasa Bruti, a sum of Rs 5,000 each is awarded to 3,549 students securing highest marks in Odia subject in Annual HSC Examination with 10 students of each Block, 10 students of each Municipal Corporation, 5 students of each Municipality and 2 students of each NAC.
51. My Government has launched a novel initiative 'Mo School Abhiyan' in order to attract philanthropic interest of alumni of Odisha schools residing within Odisha, in India and abroad to contribute generously to their alma mater. Excellent response has been received from alumni and the community for Mo School Abhiyan, which has resulted in contribution of Rs.21.02 crore from alumni of 8050 schools in 30 districts with a matching grant Rs.42.05 crore from the State Government. These contributions are meant for setting up of libraries, repair and maintenance of school infrastructure, constructing new classrooms, boundary walls, common facilities for children, setting up of laboratories, garden, MDM hall, special coaching on sports, annual school celebrations as well as improving student well being.
52. My Government has made transformative reforms for achieving global excellence in higher education including quality of learning, research and innovation, industry-academia linkages, community linkages, entrepreneurship and incubation, skills, career counselling and placement, internationalization, ICT and e-governance through digitization, infrastructure, learning tools, regulatory practices, student facilities and governance.
53. My Government has established 8 Model Degree Colleges in Educationally Backward Districts and is planning to establish 6 more New Model Degree Colleges with technologically advanced facilities to increase access to higher education and improve the gross enrollment ratio.
54. My Government has started a new initiative called 'Gopabandhu Sikhya Sahayata Yojana' extending annual financial assistance to the tune of Rs. 20,000 each for students belonging to the underprivileged sections of society in graduation and post-graduation programmes. This is in addition to the existing scholarships being availed by the students. The assistance is limited to the duration of the course and will be given each year till the completion of the course.

55. My Government has extended 'Vyasakabi Fakir Mohan Bhasha Bruti' in Odia upto +2 and +3 students, waived fees for Degree and Post-Graduation Studies in Odia, enhanced number of Ph.D. seats and reader posts, and has opened Career Counselling Cells in all State Universities and 52 Government Colleges. Besides, Civil Service Coaching Centers have been opened in 8 Universities.
56. My Government has distributed 90,000 Laptops under Biju Yuba Shasaktikaran Yojana during last 6 years. For digitization of higher education system, my Government has undertaken many IT initiatives by introducing e-Library, e-Admission (SAMS), High Power Committee (HPC) automation, creation of Digital Gender Atlas, Personnel Information Management System (PIMS), Spoken Tutorial Project etc.
57. My Government has adopted a holistic and integrated approach for development of Scheduled Tribes, Scheduled Castes, Backward Classes and Minorities of our State with special focus on social, economic, education, health and livelihood sectors. As education is vital for social development, my Government operates around 4,300 residential schools and 6,400 hostels across the State and provides quality education to 5.70 lakh ST & SC student boarders.
58. My Government has initiated a new scheme "ANWESHA", a pioneering initiative to facilitate quality educational opportunities in the best public schools for the disadvantaged ST/SC students. So far, under this initiative 19,000 ST/SC students have got admission with free course fees, hostel facilities, food, transportation etc. in various Public Schools across 17 districts of the State.
59. Two state-of-the-art Urban Hostel Complexes 'AKANKSHYA' in Bhubaneswar have been constructed to provide accommodation to about 1000 students hailing from remote areas for pursuing higher education. Further, 6 new such urban hostels are being constructed at Berhampur, Sambalpur and Rourkela which will have an overall accommodation capacity for 3,000 students.
60. My Government has implemented the Forest Rights Act in a mission mode and has become the leading State in the country in distributing about 4.22 lakh individual and 6,467 community right titles involving 9.68 lakh acres of land.
61. My Government has launched the Odisha Particularly Vulnerable Tribal Groups Empowerment and Livelihoods Improvement Programme with an outlay of Rs.795.41 crore for a period of 8 years. The project is being implemented from financial year 2015-16 to 2022-23 and will benefit around 96,000 households covering 1019 villages.
62. With an objective of providing better facilities for the socio-economic and cultural development of minority communities, my Government has sanctioned 100 Multi-Purpose Community-cum-Cultural Centers in the minority concentrated villages. Further, in order to provide quality higher education to minority students, a new scheme for providing residential facility was launched during 2016-17. Accordingly, 40 hostels have been sanctioned with an overall capacity for 4,000 Minority students.
63. Similarly, my Government has taken initiative to sanction 100 hostels with an accommodation capacity for 10,000 OBC/SEBC students to access higher education in 14 major urban educational hubs of the State.

64. Under the active initiative of my Government enlisting community participation in the protection and regeneration of degraded forests, Odisha recorded a forest and tree cover of 35.54% of the geographical area. The State has recorded an increase of 2,490 sq. km of forest cover over 5 assessment periods i.e. from 2009 to 2017 as assessed by the Forest Survey of India.
65. My Government has launched the “Green Mahanadi Mission” scheme for a period of five years from 2017-18 to 2021-22, to protect and conserve river Mahanadi ensuring perennial flow of Mahanadi, IB and Tel rivers by creating a Green Belt over 1 km width on both sides of the rivers.
66. My Government has successfully implemented the “Jagannath Bana Prakalpa” by planting 17.64 lakh selected species of trees for supply of timber for the holy Chariots during Rath Yatra at Puri.
67. For the crop year 2018, a sum of Rs. 157.37 crore towards Procurement Price and Rs. 23.92 crore towards Bush Cutting has been disbursed to over 8 lakh kendu leaf pluckers and about 24,000 binders, mostly belonging to weaker sections of the society and largely comprising women, through their respective bank/ postal accounts. Their bonus dues of Rs. 159.23 crore at the rate of 100% of Kerry procurement cost have been released through their bank accounts and incentive awards of Rs. 15.30 crore released to the Binders and Seasonal Staff.
68. A Welfare Trust Fund has been set up for the pluckers and binders that provides compassionate grant of Rs.1 lakh in case of death & disability, marriage assistance of Rs. 25,000 for 2 daughters, medical assistance upto Rs. 2 lakh in case of severe diseases and educational scholarship for 2 children.
69. My Government has completely waived the royalty on Sal leaves collection, which was Rs.86 per quintal. This will benefit about 25 lakh people of the State.
70. With an aim to enhance the forest eco-system and livelihoods of the forest dependent communities residing in project villages, Odisha Forestry Sector Development Project Phase-II with project cost of more than Rs. 1000 crore is being executed from 2017-18 to 2026-27 with the cooperation of Japan International Cooperation Agency (JICA).
71. My Government has approved 2,428 projects with an estimated cost of Rs.100 crore during 2018-19 to reduce regional imbalances and accelerate the pace of development in the Western Odisha.
72. To promote innovative ideas in different priority areas of development and governance, my Government has invited eminent persons of different fields to deliver lectures under Odisha Knowledge Hub Lecture Series and participate in discussion with senior functionaries of the State. Four such lectures have been delivered during 2018-19 by eminent speakers. All district level functionaries also participated in the lectures through Video Conferencing.
73. By implementing various fiscal reform measures, my Government has recorded significant improvement in the State finances during last 18 years. My State has been able to adhere to all parametres envisaged in Odisha Fiscal Responsibility and Budget Management (FRBM) Act since its enactment. The debt stress of the State has been brought down to 17.8 percent in 2017-

18 from the level of 50.7 percent in 2002-03, due to concerted efforts of my Government. Similarly, the Interest Payment to Revenue Receipt ratio has been brought down from 40.2 percent in 2001-02 to 5.9 percent in 2017-18.

74. My Government has implemented the Goods and Services Tax in Odisha from 1st July, 2017 through legislative and administrative measures and massive sensitization programmes.
75. More than four lakh employees and more than three lakh pensioners have been benefitted by the implementation of revised scales as per recommendations of 7th Pay Commission.
76. Efficiency in public spending and productivity has been prioritized by my Government by implementation of various initiatives such as Integrated Financial Management System IFMS-2.0, Integration of SBI e-pay with IFMS, Public Financial Management System (PFMS), “ARPAN” portal for online revision of pension etc.
77. My Government has significantly enhanced the time rated minimum wages in 89 scheduled employments and piece rated minimum wages in 15 scheduled employments to increase the standards of living, reduce poverty and inequality and boost the morale of workers. The minimum wages have been enhanced in respect of unskilled workers from Rs.200 to Rs.280, semi-skilled workers from Rs.220 to Rs.320, skilled workers from Rs.240 to Rs.370 and highly skilled workers from Rs.260 to Rs.430 with effect from 30.10.2018.
78. My Government has amended the Odisha Shops and Commercial Establishments Act, 1956 to ensure display of Odia Sign Boards in all shops and commercial establishments across the State.
79. My Government has implemented “Nirman Kusum” to provide financial support to the children of registered beneficiaries under the Odisha Building and Other Construction Workers’ Welfare Board for pursuing technical education like ITI and Diploma courses in Government Institutions.
80. My Government has planned to make all State Highways to at least double lane standard. Out of 2,158 kms of single lane State Highways, 1700 kms have been covered and the rest will be completed by the end of 2019-20.
81. My Government is constructing the ambitious four-lane road of 640 kms length, “BIJU EXPRESSWAY” connecting Jagdalpur to Rourkela through western Odisha and KBK districts of the State. The four lanning work of Sambalpur – Rourkela, a section of SH-10, covering 163 kms length with investment of Rs.1292.56 crore has been completed and dedicated to the people of Odisha.
82. During 2018-19, my Government has provided Rs.70 crore for ABADHA (Augmentation of Basic Amenities and Development of Heritage and Architecture) at Puri which includes land acquisition, re-habilitation and resettlement, road improvement for providing better facilities in and around Shree Jagannath Temple, construction of Habisiyali Centre and Multilevel Parking etc. among others.
83. My Government has taken up construction of 13 bridges over river Mahanadi, out of which 8 have been completed. Similarly, 7 bridges have been taken up over river Brahmani, out of which 5 have been completed. The longest bridge in Odisha over river Kathajodi has been completed

for alternate connectivity between the twin cities of Cuttack and Bhubaneswar. The long awaited Bridge over Gurupriya has been dedicated to the people of Malkangiri. For infrastructure development and livelihood opportunities, my Government has announced a package of Rs.100 crore for people living in this Swabhiman Anchal of Malkangiri.

84. My Government is implementing different schemes for providing better road connectivity and building infrastructure in rural areas. During current year, 9,230 kms of rural roads and 150 bridges are planned to be completed under different schemes such as 'Biju Setu Yojana', R.I.D.F, 'Mukhyamantri Sadak Yojana' etc.
85. My Government has taken several initiatives for creating urban infrastructure and for providing basic services and amenities to make our urban areas livable, sustainable and inclusive for all. My Government is implementing "UNNATI", an urban transformation initiative with the objective of addressing critical gaps in urban infrastructure along with convergence of schemes and programmes implemented in the urban areas. Under this initiative, 11,731 projects have been approved with an investment of Rs.437 crore out of which 4,173 projects have been completed and the remaining projects are at various stages of implementation.
86. Universal coverage of pipe water to all households in all the urban areas is utmost priority of my Government. To achieve this objective, a new initiative, BASUDHA, has also been undertaken under which 546 projects with an investment of Rs.589 crore are being implemented in the urban areas of the State. An ambitious programme to provide energy efficient smart LED street lights is under implementation in all the 114 Urban Local Bodies. Under this programme, all the existing conventional street lights are retrofitted with smart LED lights. Further, all the streets and roads not covered with street lights are also being provided with smart LED street lights. An amount of Rs. 640 crore is being invested for this programme.
87. Odisha Land Rights to Slum Dwellers Act, 2017, a historic legislation has been enacted - to issue land rights to the slum dwellers in all 47 Municipalities and 62 Notified Area Councils of the State. 13,000 Land Rights Certificates have already been distributed so far under the JAGA Mission and efforts are on to issue the Land Right Certificates to eligible slum dwellers on in-situ basis by March, 2019.
88. "AAHAAR" was launched by my Government on 1st April, 2015 with an objective of providing affordable, hygienic and nutritious hot cooked meals to the needy people at places of public congregations in the urban areas. Presently, 118 AAHAAR Kendras are functioning in 30 districts. From 31st December, 2018, meals are now being served during night in the 56 AAHAAR Kendras located in/near Hospitals.
89. My Government has created a Special Purpose Vehicle (SPV) under Capital Region Urban Transport (CRUT) for providing public transport services in master plan areas of Bhubaneswar, Cuttack and Puri-Konark Development Authority. In the 1st phase of Bhubaneswar City Bus Modernisation Plan, 200 buses have been procured to augment the existing fleet of 110 buses. Construction of a modern Inter-State Bus Terminal at Baramunda, Bhubaneswar will be taken up soon with an investment of Rs. 174.35 crore.

90. Continuous endeavor of my Government in energy sector has resulted in achieving 100 percent electrification in rural as well as urban areas, fulfilling the motto of “Power For All” through implementation of Biju Gram Jyoti, Biju Saharanchal Vidyutikaran Yojana and other schemes. During this year, about 22 lakh households have been electrified, thereby increasing the total number of households electrified to 96 lakh. This marvelous achievement was possible due to augmentation of generation, transmission and upgradation of distribution infrastructure through different programmes.
91. My Government has also taken major initiatives for addition, upgradation and modernization of transmission lines by Odisha Power Transmission Corporation with 144 Grid Substations, 13,757 circuit kms. of HT lines and transmission capacity of 18,416 MVA projecting Odisha as one of the best performing Transmission Utilities of the country. By adopting the new technologies OPTCL has been maintaining the System Availability at 99.99% since last two years.
92. My Government has also adopted an innovative Power Banking system, whereby it could mitigate the power shortage during difficult summer months through a barter system in which power availed through Banking gets returned during surplus months.
93. Under the programme ‘Aama Ghare LED’ my Government has taken effective steps for Energy Conservation and Demand Side Management by distributing LED bulbs free of cost to all eligible single phase domestic consumers @ 4 per household across the State.
94. Our State continues to remain a favoured investment destination due to investor friendly policy environment, stability in governance and availability of raw materials and skilled manpower and above all robust industrial infrastructure. My Government has undertaken industrial promotion activities, creation of land bank and industrial infrastructure and simplification of rules and regulations for attracting investment.
95. My Government has taken several business reforms focusing on technology-based interventions to ensure ease of doing business. Online portals such as Government of Odisha-Single Window for Investor Facilitation and Tracking (GO SWIFT), Government of Odisha-Synchronised Mechanism for Inspection of Licensed Enterprises (GO SMILE), Government of Odisha-Portal for Land Use and Services (GO PLUS), Government of Odisha-CSR Administration and Responsive Engagement (GO CARE) have been developed.
96. My Government has been proactively pursuing investors through organization of investors’ meets, road shows, conferences etc. and has participated in various national and international road shows and investors’ meets. Make in Odisha Conclave, 2018 was organised with resounding success with participation of leading industrial captains. The biennial event showcased the policy and regulatory environment, investment opportunities across focus sectors and the manufacturing prowess of the State. The Conclave received investment intents to the tune of Rs.4.20 lakh crore across 15 sectors with potential to generate employment for 5.91 lakh persons. Japan was the partner country for this event which saw a participation of more than 5 thousand industry captains and delegates from across the country and abroad.

97. My Government has started the Startup Odisha Initiative with the launch of Startup Odisha Policy and Startup Odisha Portal. 334 Startups have already been registered. Odisha has been honoured as the 'Top Performer' State in the States' Startup Ranking 2018.
98. Altogether 3,67,077 micro, small and medium Enterprises with total investment of Rs.17,863 crore have been established generating employment of 14.61 lakh persons till December,2018.
99. The export turnover of the State has increased to Rs 52,677 crore in 2017-18 against Rs 40,870 crore in 2016-17. The State has registered the highest growth rate of 114% in export amongst all the States in India for the year 2016-17, for which Odisha has been recognized as the "Champion State" during 2016-17.
100. My Government attaches utmost priority to development and expansion of Technical Education and Skill Development for youth to bring transformative human development and to provide outstanding skilled work force comparable to the best in the world.
101. My Government in technical collaboration with ITEES, Singapore will establish a World Skill Centre at Bhubaneswar, which will impart technical and vocational training of international standards to the youth of our State to make them industry and market ready. Training in most advanced and futuristic trades shall be imparted in the World Skill Centre.
102. My Government has signed Memorandum of Understanding with leading organisations to set up modern labs in Government Technical Institutions and to promote placement of students in leading organisations.
103. With a view to create opportunities for the rural youth and to scale up skill training programme, Skill Development Centres @ one in each district and 38 Skill Development Extension Centres in the campus of each Government ITIs and Polytechnics are being set up.
104. My Government has organized and ensured participation of more than 6,000 students from various technical institutions across the State in the State Level Skill Competition. The winners of Odisha Skill Competition contested in the National Skill Competition in 21 skills. Our contestants performed exceedingly well by winning 4 Gold, 9 Silver, 6 Bronze and 3 Medallions of Excellence. The State stood second in overall medals tally, which is indeed a remarkable achievement by our youth.
105. The 1st Skill Museum has been dedicated to the cause of skilling the youth and to inculcate Design-Thinking in the minds of young people, ITI trainees, school children and others at ITI, Cuttack.
106. To develop Science & Technology and to popularize science education, research and communication in the State, my Government has implemented a number of innovative programmes.
107. The new Biotechnology Policy,2018 encourages education, research and innovation in the field of biotechnology.
108. The new planetarium at Burla has started its operation and three more planetariums will be established at Rayagada, Baripada and Gopalpur.

109. My Government has decided to establish Science Centers/Parks in all districts of the State.
110. OREDA has commissioned 1866 SPV pumping systems for drinking water supply and 298 solar powered pumps for irrigation purpose. Under Decentralized Distribution Generation, 14,593 households in 398 villages were electrified by solar energy in 2018-19.
111. The Odisha State Geospatial Data Infrastructure was made operational for use by all stakeholder Departments and agencies of the State. ORSAC provided web services for 1.19 lakh acres of Land Bank for industrial development. Geodatabase of 34 Forest Divisions has been prepared and forest inventory work is in progress for Forest Working Plan preparation.
112. For better and effective governance, my Government has strengthened the provision of Video Conference facility in 314 blocks using Odisha State Wide Area Network (OSWAN). A state of the art video hub facility has been set up at Secretariat.
113. With a vision to improve efficiency and to bring transparency, my Government had started Odisha Secretariat Workflow Automation System (OSWAS) during 2009-10. Keeping the technological up-gradations in view, a technology compliant and user friendly newer version with better security features was launched in November, 2018 covering all the Departments and 3 Directorates.
114. Under “Biju Gaon Gadi Yojana”, public transport facilities have been extended to remote and unconnected Gram Panchayats. 556 BGGY buses alongwith normal stage carriages have already connected 6,742 Panchayats.
115. My Government has undertaken renovation of bus stands at Bolangir, Jeypore, Motu, Angul and Cuttack. New bus stands are also being developed at several locations to provide improved amenities to passengers.
116. My Government has inducted 23 A/C luxurious buses under “Rajdhani Express” initiative for bus services between different District headquarters and Bhubaneswar.
117. Bolangir to Bichhupalli, a 16 km section of Khurda Road – Bolangir New B.G. Rail Link Project, has been commissioned. 130 km New Jeypore – Malkangiri Railway Line project has been cleared by the Central Government with consistent efforts and commitment of my Government to contribute 25% of the construction cost as well as cost of land required for the project.
118. Land shall be provided free of cost for the connectivity from the Rail Head of Narla Station up to the proposed location of Electric Locomotive POH Workshop by my Government. With this, Kalahandi District will have a rail based industry to boost its socio-economic development.
119. Rajdhani Express has started plying via Sambalpur with sustained efforts of my Government.
120. Fourteen potential port sites in the State have been identified to be developed through PPP mode. Two ports at Dhamra & Goplapur are in operation. Second phase expansion of Dhamra Port and further expansion of Gopalpur Port are being carried out.
121. An extent of 692.68 acres of land has further been handed over to the project proponent of Subarnarekha Port to develop the port. The development of Riverine Port in Kendrapara district with an outlay of Rs.2,110 crore is being taken up.

122. My Government has implemented i3MS (Integrated Mines and Minerals Management System) Project as part of e-Governance process to bring transparency in mineral administration. It includes e-Permit, e-Pass, e-Filing and e-Payment system, besides mobile application named NMS (National Mineral Statistics) to capture the production, dispatch and sale value of the minerals on real time basis. This IT intervention has also been recognized and appreciated by the Central Government.
123. To expedite the exploration activities, Odisha Mineral Exploration Corporation Ltd. has been designated as exploration agency. 16 blocks have been allotted to OMECL for up-gradation of exploration to the desired level to facilitate auction of more blocks. The revenue from mineral royalty has shown an increase of over 70% upto December, 2018 as compared to the same period, last year.
124. Under the new Tourism Policy, 2016, my Government has envisaged an aggressive, dynamic and long term approach to develop Odisha as the most sought after tourist destination and to place it prominently on the domestic and global tourism map.
125. “Baristha Nagarika Tirtha Yatra Yojana” was launched by my Government in the year 2016-17 to enable the poor and deprived senior citizens of the State within the age group of 60-75 years to go on pilgrimage to fulfil their spiritual aspirations. This scheme is offered to people of all religions and faith. 6,000 senior citizens of the State have proceeded to different places of pilgrimage during the last two years. During 2018-19, the number of journeys has been enhanced to six and number of beneficiaries to 6,000.
126. My Government has organized Odisha Travel Bazar at Bhubaneswar in October, 2018 in order to invite foreign tour operators to educate them about the tourism products. At the initiative of my Government, Air Asia has started operation from Bhubaneswar to Bangkok in international sector.
127. My Government has made appropriate use of technology to provide various citizen centric services in a transparent manner. 5,22,670 online mutation cases have been instituted in all Tahasils of State during 2018 after receiving electronic intimation of registration of documents, deeds and instruments from the Sub-Registrar offices and 64% of such cases have been disposed online. The cadastral maps have been digitized and made available on Bhulekha platform. Maps are being corrected on Bhulekha following mutation of records. Records of Right are sent by speed post to the land owners. New registration offices have been opened during 2018 in Kesinga and Junagarh in Kalahandi district, Ganjam in Ganjam district and Tarava in Subarnapur district.
128. My Government has always been committed for the overall development of world famous Shri Jagannath Temple, Puri. Various schemes have been implemented for the welfare of the Sebayats in the areas of social security, health, housing and education.
129. For quick and speedy disposal of cases, my Government has issued notification for establishment of 18 Courts of different categories during 2018.
130. To provide access to justice to rural people, my Government has established Legal Assistance Cells in each of 1286 Gram Panchayats under 70 selected Blocks of the State named as

“Madhubabu Aain Sahayata Sibir”. During the year 2018 as many as 1117 Lok Adalats have been organized and 1,64,690 cases have been disposed off .

131. My Government has introduced Odisha Right to Public Services Act and Rules, 2012 under which 341 notified public services relating to 25 Departments are being provided to citizens within the stipulated time through online application facility. In the last four years, about 70,000 posts have been filled up through direct recruitment and rehabilitation assistance.
132. My Government has implemented Human Resources Management System (HRMS) to simplify service related works. The Annual Establishment Review, Training and Recruitment Modules have been developed in HRMS. The Schedules of all Long Term Advances are being sent to AG, Odisha online through HRMS.
133. My Government has implemented LMS (Litigation Management System) in order to ensure better management of Court cases pending in the High Court and Odisha Administrative Tribunal.
134. The initiative of my Government for adoption of self-certification by abolishing affidavits, wherever possible, is a positive step to provide hassle free governance.
135. Since the introduction of “Chief Minister’s Award for Excellence and Innovation in Governance and Public Service Delivery”, my Government has awarded ten best initiatives from the year 2012-13 to recognize the extra-ordinary and innovative works in State Civil Services.
136. For better administering of CMRF to the deserving people, my Government has delegated powers to the Collectors for sanction of financial assistance. During current year, the Collectors have provided more than Rs.6 crore to 5,810 applicants out of the CMRF funds till December 2018.
137. The overall law and order situation in the State during 2018 remained by and large peaceful. To avert any untoward incident and to maintain law and order, adequate preventive measures were adopted. My Government has been continuously focusing on upgradation of anti-Left Wing Extremists operational capability of the security forces, strengthening of the security infrastructure and plugging the security vacuum in the LWE affected areas by strategic deployment of security forces to deal with the problem effectively.
138. Safety and security of women, children and other vulnerable groups is the top priority of my Government. During the year, my Government has organized a noble campaign named PAREE PAIN KATHA TIYE with the technical collaboration of UNICEF to create mass awareness across the State against sexual harassment of minor girls. 15 vehicles decorated as “PAREE EXPRESS” moved throughout the State for a period of 15 days covering 44,707 kms and 1377 venues. Different stakeholders, people’s representatives and PRI members including 12 lakh people had attended the awareness campaign.
139. Odisha has now emerged as a major sports destination with successful organization of National and International sporting events.
140. By organizing of Odisha Hockey Men’s World Cup 2018, Odisha, my Government has proved its mettle in organizing an international tournament with the highest level of perfection.

141. As the first and only State in the country, my Government organized the State level Tribal Sports meet with an objective to identify the hidden sporting talents of tribal youth and provide them with a proper platform for participation in the State and National Level competitions.
142. To take games and sports in the State to the next level, High Performance Centers have been planned in Athletics, Swimming, Shooting, Football, Hockey, Badminton and Weightlifting in partnership with corporate houses and eminent athletes/ sports management agencies.
143. My Government is going ahead with the construction of Sports Complexes with requisite facilities in various disciplines in all districts, Integrated Sports Complex in major cities of Cuttack, Rourkela, Berhampur, Sambalpur and Jeypore, and construction of Synthetic Hockey Turfs in all the 17 Blocks of Sundergarh district.
144. My Government has implemented various benefits such as ex-gratia in case of death, financial assistance in case of incapacitation, education assistance for the children of deceased working journalists, interest subsidy for purchase of house, vehicles etc. to the working journalists. Besides, “Gopabandhu Sambadika Swasthya Bima Yojana” has been implemented since June, 2018 to provide health insurance coverage of Rs.2 lakh to each working journalist. So far, 3,847 working journalists have been covered under the scheme.
145. Odisha’s economy is on the path of steady growth. The State has been consistently growing at higher rate than the national average. From subsistence to sustenance and from sustenance to surplus, our pace of transformation has been exceptional and our growth has been inclusive. We are now distinctly positioned as a progressive State setting national and even global benchmarks. My Government is untiringly striving to eradicate poverty, accelerate the pace of economic growth, reduce regional disparity and gender differences through various socio-economic measures and pro-people initiatives. Stability has provided us an unrestrained space for growth and development. Our transparent ways of governance have made us responsive and responsible to the changing needs of our time. Participation of people in the process of development of the State has been the hallmark of this wonderful journey.
146. I would like to reiterate in unequivocal terms that my Government is firmly committed to develop all regions of the State and empower all sections of the people.
- I now leave it you to your deliberations and wish you all success.

Bande Utkal Janani.

Highlights of Budget Estimates (VoA) for 2019-20

On 7th February, 2019 Hon'ble Minister, Finance Shri Shashi Bhusan Behera presented a welfare, growth, development and investment oriented Budget (Vote-on-Account) for 2019-20 in the Odisha Legislative Assembly with an outlay of Rs.1,32,660 crore, which is about 10.4% more than the Annual Budget, 2018-19.

The term of the 15th Assembly will expire within a few months and general elections will be held. The Model Code of Conduct for General Elections will come into force after announcement by the Election Commission of India. Customarily, the new Government has the prerogative to formulate new programmes and schemes. Accordingly, instead of presenting a full-fledged budget we proposed to seek a Vote-on-Account to enable the Government to incur expenditure for the first four months of the financial year 2019-20 on existing establishment and on-going schemes and projects.

The comparative position of the outlays for 2018-19 (BE) and 2019-20 (BE) (VoA) are as follows:

Sl. No.	Item	(in Rs. crores)	
		2018-19 (B.E.)	2019-20 (B.E.)
1.	Administrative Expenditure	50,761	58,170
2.	Programme Expenditure	62,000	66,000
3.	Disaster Response Fund	1,865	2,000
4.	Transfers from the State	5,402	6,940
Total		1,20,028	1,32,660

To defray the expenditure on existing establishments and continuing schemes and projects from April to July, 2019, 100% of BE for calamity and election related expenses and 40% of BE for all other schemes may be taken in the Vote on Account (VoA) which is estimated at Rs.56,921 crore.

1. Qualitative Aspects of the Budget

- The outlay of Rs.66,000 crore for Programme Expenditure.
- The allocation for Agriculture and Allied sectors in this Budget has been substantially enhanced to Rs.19,557 crore in 2019-20.

- Allocation of Rs.19,911 crore for Education and Skills sector.
- Allocation of Rs.6708 crore for Health sector.
- Investment of about Rs.2,935 crore for Piped Water Supply Projects.
- Allocation of Rs.22,044 crore for development of SCs and STs for identified Schemes in the Programme budget.
- Outlay for development expenditure is more than 75% of total budget.
- Tax GSDP Ratio for 2019-20 (BE) would be 6.1%.
- Revenue surplus projected at 1.6% of GSDP.
- Fiscal Deficit kept within the prescribed limit of 3% of GSDP.

Department-wise allocation

						(in Rs. crores)
D. No.	Department	Administrative Expenditure	Programme Expenditure	Disaster Response Fund	Transfer from State	Grand Total
1	Home Department	4,529.54	761.03	-	-	5,290.57
2 & 18	General Administration and Public Grievance Department	202.36	202.00	-	-	404.36
3	Revenue & Disaster Management Department	983.60	146.61	-	-	1,130.21
4	Law Department	413.26	27.77	-	-	441.03
5	Finance Department	28,820.35	-	-	-	28,820.35
6	Commerce Department	74.39	18.95	-	-	93.34
7	Works Department	1,551.90	2,527.30	-	-	4,079.20
8	Odisha Legislative Assembly	80.17	-	-	-	80.17
9	Food Supplies and Consumer Welfare Department	76.26	1,057.89	-	-	1,134.15
10	School & Mass Education Department	10,280.83	6,119.17	-	-	16,400.00
11	Scheduled Tribes & Scheduled Castes Development, Minorities & Backward Classes Welfare Department	750.31	2,880.18	-	-	3,630.49

12	Health & Family Welfare Department	2,391.48	4,316.04	-	-	6,707.52
13	Housing & Urban Development Department	626.45	3,041.97	-	1,910.27	5,578.69
14	Labour & Employees' State Insurance Department	106.51	49.19	-	-	155.70
15	Sports & Youth Services Department	35.31	226.00	-	-	261.31
16	Planning and Convergence Department	51.78	1,172.07	-	-	1,223.85
17	Panchayati Raj & Drinking Water Department	397.96	10,921.17	-	4,579.73	15,898.86
19	Industries Department	5.22	232.17	-	-	237.39
20	Water Resources Department	1,266.61	8,446.82	-	-	9,713.43
21	Transport Department	109.20	490.37	-	-	599.58
22	Forest & Environment Department	485.96	386.57	-	-	872.53
23	Department of Agriculture and Farmers' Empowerment	839.22	6,713.05	-	-	7,552.27
24	Steel & Mines Department	62.72	59.52	-	-	122.24
25	Information & Public Relations Department	52.83	52.50	-	-	105.33
26	Excise Department	119.81	10.00	-	-	129.81
27	Science & Technology Department	14.44	55.48	-	-	69.92
28	Rural Development Department	1,267.99	4,110.30	-	-	5,378.29
29	Parliamentary Affairs Department	58.32	0.04	-	-	58.36
30	Energy Department	30.17	1,628.21	-	-	1,658.38
31	Handlooms, Textiles & Handicrafts Department	62.82	120.00	-	-	182.82
32	Tourism Department	15.40	168.10	-	-	183.50
33	Fisheries & Animal Resources Development Department	443.07	451.52	-	-	894.59
34	Co-operation Department	127.71	1,273.20	-	-	1,400.91

35	Public Enterprises Department	3.37	5.00	-	-	8.37
36	Department of Women & Child Development and Mission Shakti	23.62	3,290.69	-	-	3,314.31
37	Electronics & Information Technology Department	5.30	113.60	-	-	118.90
38	Higher Education Department	1,312.41	1062.93	-	-	2,375.34
39	Skill Development & Technical Education Department	322.55	394.49	-	-	717.04
40	Micro, Small & Medium Enterprises Department	72.26	120.21	-	-	192.47
41	Department of Social Security & Empowerment of Persons with Disability	62.17	3,101.75	-	-	3,163.92
42	Disaster Management	3.52	103.06	2,000.00	-	2,106.58
43	Odia Language, Literature and Culture Department	30.85	143.05	-	-	173.90
Grant Total		58,170.00	66,000.00	2,000.00	6,490.00	1,32,660.00

2. Sectoral Highlights

A. Focus on farmers and farmers' welfare:

- Allocation of Rs.19,557 crore to Agriculture and allied activities. Rise of 173% when the first Agriculture Budget was presented in 2013-14 with outlay of Rs.7,162 crore.
- The outlay for the Agriculture Budget is about 16.7% more than the outlay for the previous year and it is about 14.7% of the total outlay proposed to be provided in the Budget Estimates for 2019-20.
- Outlay of Rs.4461 crore under the scheme Krushak Assistance for Livelihood and Income Augmentation (KALIA) for all-round welfare of farmers.
- Rs.800 crore has been provided towards Interest Subvention on crop loans to Co-operative as well as Commercial Banks.
- Rs.260 crore for Corpus Fund for procurement and distribution of quality seeds and fertilizers to the farmers.
- Rs.295 crore is provided for undertaking Farm Mechanisation Programme of the State Government.

- Allocation of Rs.285 crore is made under National Mission on Agriculture Extension and Technology to enable delivery of appropriate technology and improved agronomic practices to the farmers.
- Allocation of Rs.100 crore has been made under National Horticulture Mission to promote horticulture, floriculture and spices.
- Allocation of Rs.400 crore is made towards the State's share for the premium for Pradhan Mantri Fasal Bima Yojana to provide quick relief and adequate compensation to the farmers.
- Rs.63 crore has been proposed for development of Brackish Water Aquaculture, Marine Fisheries, intensive Aquaculture and Inland Fisheries.
- Rs.83 crore is provided under Blue Revolution to undertake different activities such as fish seed rearing centres, integrated development of reservoirs, rejuvenation of water bodies and capacity building of fish farmers.
- Rs.68 crore provided under the umbrella scheme of 'White Revolution' for development of dairying and livestock management.

B. Food Security:

- 23 lakh additional beneficiaries have been provided 5 Kg rice per month per beneficiary at the rate of Re.1 per Kg under State Food Security Scheme. Provision of Rs.1028 crore for distribution of rice @ Rs.1/- per kg under the Scheme.

C. Social Security Measures:

- **Rs.2120 crore** is provided under Madhubabu Pension Yojana for Old Age, Widow and Disability Pensions at enhanced rate of Rs.500 per month for beneficiaries below 80 years of age and @ Rs.700 per month for beneficiaries above 80 years of age. About 48 lakh beneficiaries are covered under the scheme.
- **Rs.863 crore** is provided under National Social Assistance Programme.
- **Rs.1,201 crore** is provided towards material component of MGNREGA as the wage component is directly transferred to the beneficiaries through DBT.

D. Health Care for all :

- **Rs.864 crore** is provided under the scheme **Biju Swasthya Kalyan Yojana** for free Medical facilities with coverage upto Rs.5 lakh per family in case of male members and upto Rs.7 lakh per family in case of female beneficiaries.
- **Rs.578 crore** is provided under "**Mukhya Mantri Swasthya Seva Mission**" for infrastructure strengthening, emergency public health response and Digital Health Programme for providing basic health services in remote areas of the State through use of technology.
- **Rs.128 crore** is provided towards support to Medical Educational Institutions.

- **Rs.113 crore** is provided for “**Sishu O Matru Mrityuhara Sampurna Nirakaran Abhiyan (SAMPURNA)**’ for accelerated reduction of Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR).
- **Rs.1,323 crore** is provided for National Health Mission.

E. Empowering Women:

- **Rs.1,655 crore** has been spent so far for our Maternity Benefit Programme “**MAMATA**” with coverage of 35.69 lakh beneficiaries. Provision of **Rs.305 crore** is made under the scheme for the year 2019-20.
- **Rs.1,059 crore** is provided under ICDS scheme for the scheme which is being financed by the Centre and the State in the ratio of 60:40. Additional provision of Rs.351 crore is made towards State support for implementation of ICDS.
- **Rs.1,036 crore** is also provided under Supplementary Nutrition Programme (SNP).
- **Rs.58 crore** is provided under the new Scheme **Malatidevi Prak Vidyalaya Paridhan Yojana** for distribution of uniform for children undergoing school education.
- **Rs.301 crore** under the scheme **Mukhyamantri Mahila Sashaktikarana Yojana** towards financial assistance and other support to Women Self Help Groups and their federations under Mission Shakti.

F. Tribal Development:

- **Rs.226 crore** for construction of hostels for ST girls and urban hostel complexes under the scheme AKANKSHYA.
- **Rs.959 crore** for pre-matric and post-matric scholarships.

G. Investing in Youth and promoting Sports:

- **Rs.105 crore** towards Biju Yuva Vahini nurturing leadership and volunteerism, promoting culture of sports & sportsmanship, healthy living among youth, establishing vibrant youth connect platform.
- **Rs.80 crore** for development and management of Sports infrastructure.
- **Rs.35 crore** for Promotion of Sports Education and **Rs.4 crore** for improvement of Sports facilities.

H. Education:

- **Rs.300 crore** is provided under Odisha Adarsha Vidyalaya to meet the establishment and running the schools.
- **Rs.2,550 crore** is provided for Samagra Sikshya and **Rs.844 crore** for Mid-day Meal Scheme all of which will have a State share of 40 per cent.

- In addition, **Rs.375 crore** is provided towards State's support to Samagra Sikshya for implementation of Samagra Sikshya and Rs.58 crore is provided as cooking cost for the Mid-day meals.
- Allocation for **Rs.239 crore** is made under the Gangadhar Meher Sikshya Manakbrudhi Yojana (GMSMY) to provide school bags to all children from Class-I to V, free text books and school uniform including shoes to all children from Class-I to VIII and free bicycles to all students reading in Class-IX of Government and Government aided schools, Sanskrit Tols and Madrasas.
- A sum of **Rs.40 crore** is provided under **Mo School Abhiyan** for infrastructure development of schools. The Government will provide twice the amount donated by any person for various purposes such as science laboratory, library, sports etc.
- **Rs.40 crore** is provided for providing **Laptop to meritorious students** on their completion of higher secondary education.
- **Rs.150 crore** for infrastructure development of higher education institutions.
- Allocation of **Rs.225 crore** is made under Rashtriya Uchatara Sikshya Abhiyan (RUSA) for improving the overall quality of State higher education and Technical Education institutions.
- A sum of **Rs.190 crore** is proposed for infrastructure development of Technological Universities and Engineering Colleges, Engineering Schools and Polytechnics and ITIs.

I. Skilled in Odisha:

- A sum of **Rs.100 crore** will be provided under the ADB assisted Odisha Skill Development Project to bring up a World Skill Centre in Odisha and upgrade the ITIs and Polytechnics along-with advanced Skill Training Centres.

J. Rural Development

- **Rs.3,600 crore** is provided for rural housing through convergence of PMAY Gramin and Biju Pucca Ghar.
- Proposal of an outlay of **Rs.2,500 crore** for rural piped water supply and **Rs.435 crore** for urban piped water supply under **BASUDHA**.
- **Rs.400 crore** is provided for "Ama Gaon Ama Bikas" which includes creating awareness about different Government initiatives under Peoples' Empowerment Enabling Transparency and Enhancing Accountability on Odisha Initiatives (**PEETHA**).
- **Rs.1,600 crore** for the rural component of Swachh Bharat Mission.
- Provision of **Rs.2,682 crore** is made for transfer to PRIs on the basis of the recommendations of 14th Finance Commission and **Rs.1,898 crore** on the recommendations of the 4th State Finance Commission.
- **Rs.2,900 crore** is provided under Pradhan Mantri Gram Sadak Yojana (PMGSY) for construction of roads.

- To ensure connectivity to the habitations not eligible under PMGSY, a sum of Rs.50 crore will be provided under **Mukhya Mantri Sadak Yojana**.
- **Rs.50 crore** is provided under the scheme **Connecting Unconnected Villages** to provide road connectivity to remotest and inaccessible villages of Left Wing Extremist (LWE) affected districts.
- **Rs.120 crore** is provided under Biju KBK Malta for effective implementation of Bijli, Sadak and Pani projects in KBK Districts.

K. Increasing irrigation coverage

- A sum of **Rs.1,777 crore** has been allocated for **Parbati Giri Mega Lift Irrigation Scheme**.
- An outlay of **Rs.2,175 crore** has been provided in 2019-20 for 8 on-going AIBP Projects for which funding has been tied up from **Long Term Irrigation Fund (LTIF)** under NABARD.
- An outlay of **Rs.402 crore** has been provided for construction of check dams under **Mukhya Mantri Adibandha Tiyari Yojana - MATY**.
- Allocation of **Rs.110 crore** is made to revive defunct L.I. points.
- **Rs.300 crore** is provided for **Deep Bore Well Scheme**, **Rs.400 crore** under **Biju Krushak Vikas Yojana** for community lift irrigation projects.
- A sum of **Rs.218 crore** has also been proposed for Agriculture Department to take up micro-irrigation under PMKSY.
- To minimize conveyance loss in canals, a sum of **Rs.210 crore** is being proposed under Canal Lining and System Rehabilitation Programme (CLSRP) to complete about 150 km of canal lining work.
- An outlay of **Rs.960 crore** has been provided for flood control and drainage work.

L. Investment in railway projects

- **Rs.400 crore** is provided for **development of Railway Projects** in the State.
- **Rs.10 crore** is provided for completion of railway projects of strategic importance through SPVs.

M. Industrial investment

- The outlay for Industries Department is increased substantially to **Rs.237 crore** which includes **Rs.188 crore** towards pending benefits under IPR.
- Outlay of **Rs.183 crore** is made for **Handloom, handicrafts, sericulture and textile sector** and **Rs.192 crore** is provided for **MSME sector**.

N. Urban Development:

- **Rs.401 crore** is provided under the new scheme Urban Transformation Initiative (UNNATI) for improvement of urban infrastructure.

- Provision **Rs.125 crore** to upgrade the public transport system of Bhubaneswar on a PPP mode.
- Another **Rs.400 crore** is provided for construction of urban dwelling units. Thus, total **Rs.4,000 crore** is provided for housing sector.
- Provision of **Rs.2,935 crore** under BASUDHA Scheme include **Rs.435 crore** for urban piped water supply.
- Provision of **Rs.542 crore** is made for transfer to ULBs on the basis of the recommendations of 14th Finance Commission and **Rs.1,288 crore** on the recommendations of the 4th State Finance Commission.
- **Rs.400 crore** is provided under the **CSS AMRUT** and **Rs.52 crore** for National Urban Livelihood Mission.
- **Rs.136 crore** is provided under JICA assisted EAP for improvement of sewerage system in Bhubaneswar and Cuttack.
- **Rs.90 crore** for the urban component of Swachh Bharat Mission.

O. Infrastructure:

- **Rs.1300 crore** provided under Road Development Programme for construction and upgradation of roads in the State.
- **Rs.533 crore** is provided under **Odisha Distribution System Strengthening Programme (ODSSP)** for establishment of new 33 x 11 sub-stations.
- Provision of **Rs.100 crore** is made under **State Capital Region Improvement of Power System (SCRIPS)** to provide 24 x 7 uninterrupted stable power supply.
- Provision of **Rs.200 crore** for Double Laning of State Highways under **State Highway Development Programme (SHDP)**; **Rs.65 crore** for road Projects under PPP mode; **Rs.50 crore** for **Biju Expressway** to improve connectivity in Western Odisha and KBK districts; **Rs.250 crore** for Central Road Fund projects.
- **Rs.500 crore** is provided under **Biju Setu Yojana** for construction of bridges.

P. Disaster Management:

- **Rs.2,000 crore** is provided for Disaster Management including **Rs.909 crore** under SDRF and **Rs.1,091 crore** under NDRF.

3. FRBM Compliance for 2019-20 (BE)

- The estimated **Revenue Surplus at 1.56 per cent** of GSDP has adhered to the FRBM limit of Zero Revenue Deficit.
- The **Fiscal Deficit** is projected at **3 per cent of GSDP**.
- The **Interest Payment to Revenue Receipt (IP/RR) Ratio** is targeted at **5.87 per cent** which is below FRBM limit of 15 per cent.

- The outstanding **debt to GSDP ratio** at the end of FY 2019-20 is estimated at **19.20 per cent of GSDP** which is below the FRBM limit of 25 per cent.
- **The Budget for FY 2019-20 is FRBM compliant.**

4. Financial Management Reforms

i) *Up-gradation of Integrated Financial Management System (IFMS-2.0)*: Odisha is one of the leading States in the country in implementation of **Integrated Financial Management System (IFMS)**. The Odisha IFMS system is being up-graded to IFMS-2.0 to switch over to a complete paperless mode of Government transactions. It is expected that, in coming years, the State will move towards a complete paperless environment so far as financial transactions are concerned.

ii) *Integration of SBI e-pay with IFMS* : Odisha IFMS has been integrated with SBI e-Pay to provide payment gateway service for facilitating Online and Offline payment of Taxes in Odisha Treasury Portal. This will greatly help Departments such as Revenue & Disaster management, Transport, Industries, Steel & Mines etc in promoting e-payments and ease of doing business.

iii) *Public Financial Management System (PFMS)* : Odisha is one of the leading States in implementation of Public Financial Management System (PFMS) to track last mile utilisation of funds through various Implementing Agencies. Integration of PFMS with the Odisha Integrated Financial Management System (IFMS) has been completed.

iv) *Electronic Processing of pension sanction and prompt settlement of Terminal Benefits of employees of Non-Govt. Aided Educational Institutions* : The pension papers of a retired Government Servant is now being processed electronically through IFMS for sanction. It has expedited the pension sanctioning process.

v) *“ARPAN” portal for online revision of pension* : “ARPAN” portal for online revision of pension was launched by the State Government in November, 2017. This intervention is providing hassle free service to the old pensioners.
