

Livelihood and Citizenship Crises in the Third World : Growing Preponderance of the Markets

Dr.S.Sudhakar Babu

Associate Professor, Human Resource Development, University of Hyderabad

Dr.B.D.J.Narendra

Assistant Professor, Department of Anthropology, Mekelle University, Ethiopia

ABSTRACT :- The past few years have witnessed major change in the way citizens are forced to approach their livelihoods. This change, which often borders on a crisis, has its roots in attempts change the existing patterns of resource allocation and the competition to grab scarce natural resources. This, often forcing reallocation of scarce resources seems to inaugurate a new era in which certain groups are given greater preference in hitherto never witnessed forms. This competition has its origins in the increased stakes that private corporate entities now have in cornering scarce resources thanks to their growing importance in the financial markets. We argue that unlike in the past there are now many more ways to profit from commanding and controlling large stakes in natural resources. But, those profits are possible only by way of a comprehensive redistribution of resources, especially land and mineral wealth. The re-allocation takes different forms including either dispossessing existing stakeholders by force if necessary. We opine that these new forms of dispossessing and re-allocation tend to create a dual structure wherein it seems to indicate that certain categories of citizens are preferred vis-a-vis others. We proffer that the recent attempts at re-allocation of scarce resource like land by way of "Land Pooling" in Andhra Pradesh's new capital, Amaravati, is one such attempt. Other such attempts include attempts to corner mining resources in third world countries. We opine that such attempts are thought as a necessity to satisfy the increased demands of the investors at the cost of other not so fortunate citizens.

Introduction :- The contest around control and access to natural resources has increased over the past two decades. Over the past two decades, an overwhelming number of developing countries have witnessed disputes and contests over the changes that were sought to be introduced in the pattern of access and control over natural resources. The National Register of Citizens (NRC) is meant to identify a bona fide citizen is also related to share or burden on limited resources on demographic dividend one country owns¹. In other words it originated in the increased view that there is an attempt to dispossess existing holders over their right or traditional systems of control over the natural resources. The increased disputes have coincided with a period of unprecedented buoyancy in the global economy and the financial markets. This led to an explosion in the demand for various goods that in turn require the acquisition of natural resources if large transnational corporations are to retain their profitability. This thirst has often been termed as "Resource Revolution"². The increased spread of "financialisation"³ has been pointed out as an important reason for the increased importance of physical assets. In other developing countries the attempt to corner resources often centred around occupying vast areas useful for mining,

¹ <https://www.thehindu.com/news/national/other-states/what-is-the-citizenship-amendment-bill2016/article23999348.ece>

² <http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/are-you-ready-for-the-resource-revolution>

³ Callon, Michel (ed.) (1998), *The Laws of the Markets*. Oxford: Blackwell.

in India the contest has taken the form of contest over attempts to take over a scarce but important asset/resource like land. Unlike in the 1970s when the fight was largely against inequitable distribution of such scarce resources, in the recent past, the contest has been to maintain status quo. This contest is necessitated due to the manner in which various private as well as State, institutions and markets have inaugurated new patterns of interaction with various stakeholders who till then controlled the resources, albeit through marginal and dispersed forms of ownership. This paper attempts to highlight some of the issues that arise from such contests. We argue that the conflict over control of land has reinvented the way the institutions of the State interact with various stakeholders, especially the marginalised. We proffer that unlike the past, there is an unprecedented, overt support given to the rights and interests of a few sections of elite over the rights of the underprivileged. The paper attempts to draw attention to this changed behaviour of the state in the context of recent attempts by Andhra Pradesh to seek land for building its new capital. Our research, part of a larger study on Land Pooling and its impact attempts to raise some of the issues that arise from recent developments.

A number of studies have looked at contentious issues such as Land Acquisition⁴, causal relationship between shocks to renewable natural resources and conflict⁵ as well as impact of land acquisition among others. Raman (2016)⁶ looked at some of the processes

⁴ Sanjoy Chakravorty, Sanjoy Chakravorty (2016) Land acquisition in India: The politiceconomy of changing the law, Area Development and Policy, Volume, 1 Issue 1

⁵<https://casi.sas.upenn.edu/sites/casi.sas.upenn.edu/files/research/Renewable%20Resource%20Shocks%20and%20Conflict%20in%20India's%20Maoist%20Belt.pdf>

⁶ Bhuvanewari Raman (2016), "Reading into the Politics of Land: Real Estate Markets in the South-west Peri-urban Area of Chennai, Economic and

of transformation that becomes possible with the intervention of a State that attempts to encourage manufacturing on a hitherto agrarian base.

Land Pooling and New Market Dynamics :-

The AP Government notified "Land Pooling" to build the new capital city in 2014-15⁷. The programme was a success since the government was able to mobilise about 33,000 acres from landowners in 29 villages. The exercise entailed the promise to return developed plots of residential and commercial land based on the quality of land and type of land. Land owners were offered between 800-1200 square yards of residential plots and upto 200 square yards of commercial plots for every acre surrendered through land pooling. Apart from the developed plots, landowners were promised an annual lease for land for a period of 10 years based on the quality of land. In other words, it is expected to lead to a massive conversion of farm land to urban lands in the near future. The government in turn will use the land collected through land pooling to build various administrative and economic infrastructure including giving it to private corporate entities at subsidised rates. The exercise is unique because it was the first time that such large amounts of land were collected under land pooling in the country. Second, the exercise of mobilising required minimal expenditure by the State though the market value of the land exceeded Rs.25,000 crores. Third, there was little resistance since landowners calculated that the return of residential and commercial plots will have a future 'value' in excess of any possible appreciation in the agricultural lands. We argue that the control over a scarce natural resource like Land with the promise of future, unlimited capital gains is an integral component of "land

Political Weekly, Vol LI, No.17, 23 April 2016, pp. 76-84.

⁷ AP Government Municipal Administration & Urban Development (M2) Department, The Andhra Pradesh Capital City (Formulation and Implementation) Rules, 2015, Dt.01.01.2015

pooling scheme" (LPS). Moreover, the increased opposition to forcible land acquisition made LPS attractive as it did not entail force – at least overtly.

This changed dynamics in the pricing of land itself has occurred concurrent to the increased importance of the financial markets for the companies. Over the past decade the private corporate sector has increasingly come to rely on the financial markets to raise money, including working capital requirements. Unlike in the past investors now prefer capital appreciation over dividend incomes on their investments. The dividend yield on the US market (S&P500) has declined from a high of 5.37% in 1974 to 1.17% in 1999. Since then it was below 2.25% except during the global financial crisis (2008)⁸. This essentially means that investors now no longer depend on dividends for their returns; instead they look forward to capital appreciation on their investments.

One of manner in which capital appreciation can be achieved is to convince investors that the future value of their investments will continue to rise because of access to scarce resources like Land, water and other natural resources/commodities. As demand increases commodities are an important component in the global supply chain and under capitalism. The rise of China as a manufacturing hub and its massive consumption of natural resources only increased the profits that access and control of natural resources allowed companies to control. This control of natural resources provided an opportunity for the corporate sector to improve the perceived future 'value' of their companies in the eyes of investors. This rise of the "valuation" model, in which perceived future value offers a higher share price today means that there is now an incentive to increase the control of natural

resources – even if it has an extraordinary high human cost. In the past decade, foreign investors were increasingly willing pour capital into countries that offered these natural resources. Inflow of capital was welcomed by most of the developing world since most of them are capital deficient countries. Bank of International Settlements (BIS) estimates that the flows into emerging markets are approximately US\$1 trillion per year⁹ or about four times the capital inflows between 1993-1996 and 1997-2001 period.

The high stakes involved meant that the elite were willing to compromise on the essence on which their nation states were built in an attempt to satisfy a new breed of foreign and local investors who now demand increased, unfettered access and control of natural resources as a pre-condition for continued inflow of capital. Any refusal to heed to the demands of capital invariably leads to an exodus of large amounts of capital thereby leading to a crisis. Thus in many ways the financial markets have now come to directly and indirectly dictate the policy of nation states.

Citizenship in the era of Capital flows :- An immediate consequence of this is a major change in the nature of state and its focus.

Republican notions of citizenship likely dominate rural communities, but liberal citizenship discourses may offer meaningful pathways for a proactive democratic life; rural individualism must be assessed for its strengths and weaknesses; (economic hardships can lead to political distrust, but can also become fuel for citizen empowerment; and rural social norms can jeopardize main goals, so they must be acknowledged. Each assertion is accompanied by a discussion to elucidate the assertion and make recommendations on how to utilize rural possibilities to improve through market intervention.

⁸ <http://www.multpl.com/s-p-500-dividend-yield/table>

⁹ <http://www.bis.org/publ/cgfs33.pdf>

Increasingly, institutions of the state become more focussed on expanding the scope of the markets and giving precedence on the market participants at the cost of other segments. In the changed focus of the state, contest over natural resources are frowned upon with those seeking a more equitable distribution of resources either non-existent or considered to be against new forms of "economic development". In the case of AP, the onset of LPS indicates an important departure in which institutions of the State interact with citizens. They tend to become more geared to offering incentives to private sector at the cost of other considerations. In such a context, the immediate losers are the marginalised sections like Dalits, tenant farmers and those engaged in the informal sector. The State tends to offer a position of pride to propertied segments because they are considered an integral bridge between the needs of investors who desire to control natural resources and the new models. The new emphasis requires individuals to not only serve the larger cause but also to voluntarily give up certain rights as they are demanded by the markets.

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The Issues and Challenges of Higher Education in Karnataka-an Overview

PARVATHI. S

Assistant Professor in Commerce, Maharani Women's Arts Commerce and Management College, Bengaluru – 560 001 Karnataka, India

JAYALAKSHMI. S

Assistant Professor in Commerce, VHD Home Science College, Bengaluru – 560 001, Karnataka, India

Abstract :- Higher education is a key element which will enhance the human capacity in a multiple level. Such as enhancement of quality of life, health, prosperous career of individual. Then only the human can contribute to the development of society as well as nation. The study is mainly focus on analyzing the issues and challenges faced by the higher education in Karnataka. It is mainly intends the quality of education offered by colleges, universities and its impact on employability of graduates and their contribution to the nation.

Key words :- Typology, Variegated, Academic audit, Higher Education Policy, Diversity Index.

Introduction :- Higher education includes Technical education, Professional education, Arts and Science College, Open and distance learning, Teacher education colleges.

India's higher education system is the 3rd largest in the world after China and the US. The main governing body at the tertiary level is the UGC (India), which enforces its standards, advises the government and helps to contribute between the center and the state. Accreditation for higher learning is overseen by 12 autonomous institutions established by the UGC. Indian higher education system has expanded at a fast pace by adding nearly 20000 colleges and more than 8 million students in a decade from 2000-01 to 2010-11. As of 2011 India has 42 central universities, 275 state universities, 130 Deemed universities, 90 private universities, 5 institutes of national importance, other

institutions include 33000 colleges as government degree colleges and private degree colleges including 1800 exclusive women's colleges, functioning under these universities and institution as reported by the UGC in 2012.

According to All India Survey of Higher Education (AISHE) report GER in higher education in India is 25.27% in 2016-17, which is calculated for the 18-23 age group. The GER was 15% in 2014-15 and 24% in 2015-16. India witnessed a 2.5% increase in the GER in higher education sector in 2016-17 over that recorded in 2014-15 . The total enrolment in higher education has been estimated at 35.1 million (3.57 crore), with 19 million boys (1.9 crore) and 16.7 million girls (1.67 crore).

Karnataka has figured in the list of top eight state in the number of college in India. The top eight states in terms of highest number of college in India are Uttar Pradesh, Maharashtra, Karnataka, Rajasthan, Andra Pradesh, Telangana and Madhya Pradesh. Karnataka is one an increase in the Gross Enrolment Ratio in the higher education sector in the last three years and reached 26.5% higher than what has been recorded at the national level. Bangalore topped the country for having the highest number of colleges (1.025) in a district followed by Jaipur (635). Although Karnataka is expected to soon become a hub for higher education with the number of higher education institutions increasing three-fold in the last 10 years. Major challenges need to be tackled to bring them on par with international manpower. Not just

professional, even colleges offering number of universities both public and private are growing in numbers.

But when we assess their quality and capacity to cater to the students and compare these with the list of world class institution they fall short. Despite having hundred of higher education institution and state run public and private universities, only seven from the state were able to apply for the prime minister's office scheme of establish institutions of eminence. Although the number of engineering colleges in higher education with the state producing over 60000 engineering graduates every year not all of them are employable as per a public statement given by the higher education minister at a recent event.

Objectives of the study

1. To understand the concept of higher education.
2. To analyses the present problems/challenges of higher education in Karnataka.
3. To find the suitable solutions to the problems/challenges.

Scope of the study :- The study is mainly cover the quality of higher education, problems, issues, suggestions of higher education in Karnataka. This study is restricted to boundaries of Karnataka only.

Methodology of the study :- The study is based on higher education in Karnataka, research articles, newspapers, websites on secondary data which is collected from the published reports.

Review of literature

Higher Education Karnataka, in its 'open document', it states" the issues, challenges and recommendations on the existing scenario of higher education in Karnataka and it mentioned here that vision 2020". It is an immediate goal,

the Karnataka state higher education council shall setup a high-power committee to review the vision and workout the strategies to adopt for vision 2020, According to this committee 25% of Gross Enrolment Ratio should be achieved by 2020. Also establish monitoring and facilitation cells for accessing UGC and other funding agencies.

Deccan Herald-New Delhi (2018), in this newspaper "at 26.5% states gross enrolment ratio among country's highest", states Karnataka has also figured in the list of top eight states in the number of colleges in India. Karnataka is one an increase in the last 3 years and reached 26.5% higher than what has been recorded at the national level. According to a government report in Karnataka, the gender parity index (GPI) has been pegged at 1.01, which means that the number of girl students enrolled in various higher education programmes was higher than those of boys.

Dr.J.D Singh(2011), in his article published in edited book 'higher education: higher education in India- issues, challenges and suggestions" identifies India educates approximately 11% of its youth in higher education as compared to 20% in China. India's higher education is the world's 3rd largest in terms of students, next to China and the US. Its Gross Enrolment Ratio (GER) is a mere 11% compared to China's 20%, the USA's 83% and South Korea's 91%.

The eleventh five year plan envisages in the GER in higher education to 15% of the population in the age cohort group of 18-24 years by 2011-12. This requires a substantial increase in the number of institutions and consequently would require an adequate number of teachers for imparting education .President Prathibha Patil said that India aspires to increase enrolment in higher education. She added that the country intends to raise gross enrolment ratio in higher education to 30% by the year 2020, which means almost tripling the enrolment from the present 14 million to about

40 million.

Issues/challenges and suggestions

1. Localization of the State University System

:- which means teachers and students of state Universities come from the same or contiguous regions as the location of the Universities. The Universities is set up to provide job opportunities to the people of that specific region. This tend localizes the Universities in a very debilitating way.

Universities could develop a diversity index, which rates their performance on a 'diversity scale' that gives a sense of the different backgrounds(educational, social and regional) from which it has drawn its faculty members and administrative personnel. Therefore, there is an urgent need for universities to develop a broad based recruitment policy.

2. Lack of clear policy frameworks for entry of New Education :-

providers to the higher education system. In Karnataka private investment in both medical and engineering institutions is a little above 80% and public investment only accounts for the remaining 15 to 20%. Apart from the regulatory and Governance issues regarding private institutions it will be crucial to examine the terms on which new players both private and foreign will enter the system as also the scope of services they would be willing to offer, facilities they need to create policy of enrolment, etc.

In order to streamline educational planning in Karnataka, it may be necessary for the govt. to setup an expert committee to recommend, review and mentor the process of the entry of private players into the system. And the need, is that a body similar to the association of Indian universities be setup at the state level, which includes both state and private universities and reputed research centers to explore and implement mechanisms of self-governance and mutual capacity building.

3. Lack of Mission differentiation between several types of Institutions :-

Although the higher education scene is variegated in terms of Institutional typology and responds to the diverse demands of many sections of the society, it is puzzling to note that this variety is not reflected in the differentiation in the mission of most institutions.

A decisive step in this direction would be to actively foster institutions to undertake periodic visioning exercises, which will clarify the need for differentiated vision and providing differential financial and administrative support for universities based on their mission would greatly aid the process of mission differentiation.

4. Trust deficit of public in higher education institutions :-

Despite the widespread rhetoric about the importance and value of education and the respect commanded by an "educated person" in our social life, there seems to be very little translation of this sentiment into active public trust in our institutions of higher education. The decreasing role of private philanthropy in higher education and the increasing mistrust in the value of University degree is cause of serious concern.

It is important to build greater linkages between institutions and the society it serves by concentrating on social skills development and overall personality development of graduates along with their acquisition of knowledge. It will help us to connect higher education with social ethos.

5. Lack of dynamic learning goals and curricular relevance :-

means a students does not know why he is in Higher Education and what was the use of his college education. A better way of articulating this problem is to say that students are unable to make sense of their education because they are unable to make use of their education because their education is not

including in them critical skill or meta learning.

Instead of focusing merely on developing market friendly courses, it is important to render course were relevant by instilling in students broad-based competencies and critical thinking abilities.

6. Research Orientation in Higher Education

- means University education system has to be necessary evaluated for its research contribution and this is where most Indian University fail to pass the test of all the research produced in India, by one estimate only about 12% is produced in the University and the remaining 88% is produced in research centers and private firms with no link to the university. Lack of research culture at our Universities is the result of a number of problems that troubles the University system and therefore no magical solution may be on the offer.

It is crucial that teacher research be encouraged at a greater intensity than has been done in the past.

7. Challenges of the Affiliation System

- means the role of the University in the academic functioning and Quality assurance of the Affiliation colleges is minimal. However in the current system University depends on affiliated colleges for a sizeable chunk of their revenue. This has created a peculiar systemic crises: affiliated colleges are Under-Regulated and the University contribution to the academic excellence of the affiliated college is minimal.

It is not easy to get rid of the affiliating system. Until any alternative solution to affiliating system is evolved, we have to be content with the existing system in the interest of facilitating education to a large number of students.

8. Bridging the Gap between School education and Higher education

- Such as although in the recent years immense

developments have taken place in school education reform is has not always resulted in the increase in the Gross Enrolment Ratio(GER) for Higher Education nor has it reduced the entry level barriers to Higher Education.

In order to bring quality reforms in higher education, the problems of school and pre-university education need to be addressed and reforms in school education shall be complementary to reforms in higher education and these systems shall not be tackled in isolation.

9. Last mile problems in ICT(Information and Communication Technology) for Higher Education

- When most Universities worldwide have successfully adopted ICT in Higher Education. But Indian Universities and Colleges suffer from a plethora of last mile problems in implementing ICT base solution. Most success in India in the implementation of ICT are localized to institutional cases and have not proved to be scalable across the entire spectrum of Higher Education. It is important to stress the need for internet and computers as a basic need comparable with basic needs like education and livelihood.

Automation of administrative aspects, admission process, examination related work, finance and accounting should go hand in hand with ICT use in higher education.

10. Financing patterns and self financing of Higher Education Institution

- The General pattern in public higher education in India is that only about 12 to 13% of the revenue is generated by tuition fees and close to 80%of the revenue comes solely through Government Subsidies and Grants. The diversification of revenue sources is a crucial challenge, which the Indian University System has never been able to handle with any degree of success.

However, it is possible to augment

resources from charity and philanthropic services.

11. Governance Deficit :- It has been rightly said that Indian Higher Education Institution are over regulated and Under-Governed. Effectively this means that where the red tape and bureaucracy is heavy in higher education, there is proportional lack of methods by which institutions can be made accountable to their stakeholders to the knowledge society in general.

It is important to think of peer-review and peer-feedback system between different educational institutions.

12. Academic Audit :- Although academic auditing of higher education Institutes is on card, it has not been regularly done. Whenever it is done deficiencies mentioned in the report are hardly addressed.

It is to be ensured that reports of the previous year should be referred to know the strengths and weaknesses of institutions, so that regular peer review and academic audit should be made mandatory.

13. Distance education :- If at all higher education has to achieve the expected level of expansion in terms of Gross Enrolment Ratio, it has to strengthen Distance Education. The existing system needs to be upgraded so that the philosophy of distance education is realized convincingly, its role to cater to the need of special stakeholders who could not afford the mainstream regular education.

It should frame regulations governing institutions offering courses through distance made to check on the quality of education.

14. Alternative education for college Dropouts :- At present higher education is a dream for those who temporarily leave colleges because of financial or other social problems. By

the time, they overcome their difficulties it will be too late to pursue education. There are no other alternative avenues in our system to cater to the special needs of dropouts.

The concept of community college helps to increase the GER also.

15. Sports and Extra -Curricular activities :- Physical Education and sports in general and extra - curricular activities in particular are marginalized segments in the overall education program. Intellectual development of students is closely connected with their physical development. However, at some Universities, Physical Education Departments exist and Physical Directors are recruited for undergraduate education, sports and physical education remains the most neglected field in higher education.

Sports education needs to be seen as part of the general education. Overall personality development of students is as important as their academic development.

Conclusions :- The higher education in India gradually moving from traditional education (classroom teaching) to modern education, non-technical to technical education, domestic to global education. The present scenario of education moving towards knowledge economy which is competing in global level. This study focusing on the present issues/challenges and providing suitable solution of higher education in Karnataka.

According to our view point while implementing above suggestions, we can be on the way to quality of education in a tertiary level. One of the important challenges before the state is to bring public institutions on par with private institutions both quality and infrastructure by upgrade the existing once. And also introduce the concept of continuous comprehensive evaluation, after carefully examining the required modalities and

examination reforms to test the competencies and skills of students rather than their memory.

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Importance of macrophytes in removing biologically active nutrients

Jawalkar manglesh Kumar , Wanganeo Ashwani

Department of Environmental Science and Limnology, Barkatullah University, Bhopal, India

Abstract :- Phyto-remediation is one of the serious efforts towards the sustainability. Macrophytes grow in aquatic environments and are well adapted to their surroundings. They have capability to improve the quality of water by absorbing nutrients with their effective root systems and hence function as powerful bio-filters (Parvej et al 2014)

The main objective of the proposed work was to assess the role of various types of macrophytes (submerged, emergent and floating types) in locking up of nutrients of two different trophic status.

During the present study emergent macrophytes have been found to bring reduction in t nitrate, orthophosphate and sulphate values in ambient waters up to 50 % in upper lake whereas in Shahpura lake reduction was found in nitrate and nitrite values only.

Presence of free floating macrophytes has been found to be responsible for bringing about > 50 % reduction in various chemical parameters like ammonical nitrogen, nitrite, nitrate, orthophosphate, sulphate, Specific conductivity, sodium, total iron and chloride in ambient waters of Upper lake while in Shahpura lake >50% reduction on account of presence of free floating macrophytes has been recorded in nitrite ,nitrate only in the ambient waters. No significant reduction in Phosphate phosphorous values in ambient waters has been recorded which may be due to eutrophic condition of the water body as it is mostly fed with grey waters from the surrounding catchment area.

Presence of submerged macrophytes has been observed to bring about > 50% reduction in various chemical parameters like

ammonical nitrogen, Nitrate, nitrite, orthophosphate, sulphate, TDS, specific conductivity, chloride, sodium and total iron accept potassium in upper lake. However, no such phenomenon was observed in Shahpura Lake on account of absence of submerged macrophytes.

Present paper elucidates the role of different macrophytes on monthly basis in Bhoj wetland (a Ramsar site) and Shahpura lake (an urban lake)

Introduction :- Rapid industrialization and anthropogenic pressure, and agricultural activities in catchment area, of a water bodies growth in the addition of nutrients serious problem of eutrophication. Macrophytes play a important role in maintaining water quality. It has tremendous capacity of absorbing nutrients and other substances from the water (**Boyed, 1970**). There has been a great deal of interest in the use of aquatic macrophytes to reduce the concentration of nutrients from ambient waters and to remove nitrogen and phosphorous from the water (Steward, 1970). The use of macrophytes based ponds for resource recovery calls for a critical examination of the mechanisms involved in nutrient removal. The aim of present investigation is to evaluate the reduction of nutrients and bacteria by macrophytes in water bodies of different trophic status.

Study Area :- Two water bodies situated in Bhopal Township have been surveyed under the present investigation. Both of these water bodies are having different trophic status. The two water bodies are ;
(a) Upper lake

(b) Shahpuura lake

Upper Lake :- Bhojtal, formerly known as Upper Lake (Badaa Talab) created by King Bhoj in 11th Century lies on the western side of the capital of Madhya Pradesh, Upper lake (Badaa Talab) major source of drinking water for the residents of the city, serves around 40% of the residents with nearly 30 million gallons (140,000 m³) of water per day.

Upper lake is surrounded by Van Vihar (National Park) on the south, human settlements on the east and north, and agriculture fields on the west. The watershed of the Upper Lake is mostly rural, with some urbanized areas around

its eastern end. It is one of the largest artificial lake in Asia.

The effluents entering from the Bairagarh watershed area via Bairagarh nalla pass through various zone of macrophytes belt viz emergent macrophytic belt, free floating macrophytes belt and submerged Macrophytic before reaching pelagic zone.

Water samples collected from five sampling stations for the analysis are site-1(inlet water from near Bairagarh nalla) , site-2 Emergent, Site-3 submerged , site-4 floating macrophytes and site-5 pelagic zone near pump house Bairagarh.

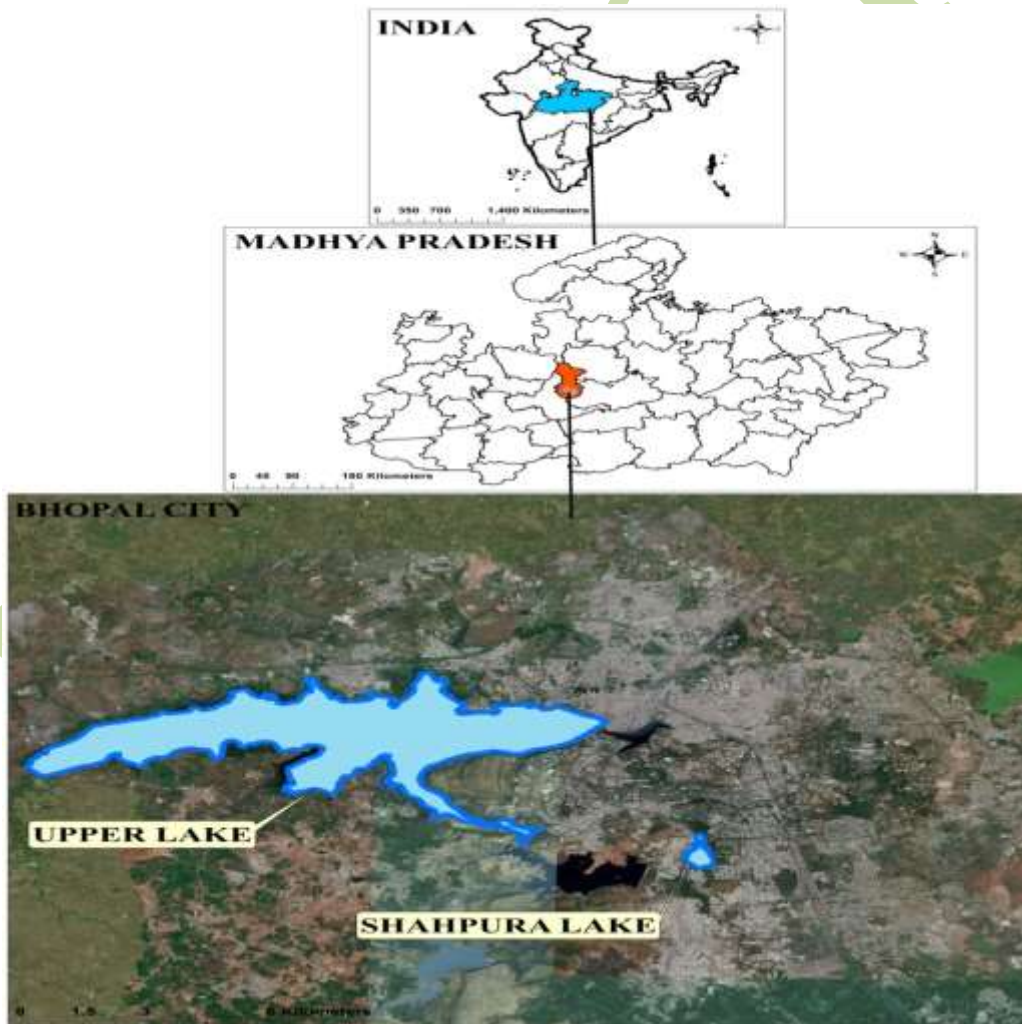


Fig. 01 Location of Study Area

Shahpura Lake :- Shahpura Lake is one of the important urban lake in Bhopal, Madhya Pradesh. Shahpura lake effluents mainly enter from the Chunaabhatti, Panchsheel nagar and Charimli watershed areas through respective drains into calumniating a big drain which finally enters into the lake near pollution control board office.

Water samples collected from four sampling stations selected for the analysis are site-1 (inlet water), Site-2 (emergent) , site-3 (floating macrophytes) and site-4 (not infested with macrophytes).

Material methods :- Monthly samples in clean glass and polythene bottles and were transported to the laboratory following the standard methods as in APHA (1998) and Adoni (1977).

Results and Discussion :- Macrophytes play an important role in physical structure by way of increasing habitat complexity or heterogeneity. Though macrophytes are the common features of an aquatic system yet there over /massive growth changes their succession pattern which ultimately affects the biota in association with them. In order to treat the waste water by eco-friendly techniques macrophytes play an important role. Globally also the declining water resources on account of grey water has attracted the attention of use of macrophytes towards their preservation.

The work conducted on the importance of bacterial load in to water bodies of of dissimilar tropic status revealed following. changes in there physic-chemical characteristics among the physical features highest atmospheric temperature was recorded during summer and lowest during winter season.

Ammonia in water is an important parameter which indicates pollution by sewage, bacterial and animal waste (WHO, 2008). Intensive rearing of farm animals around water-body can give rise to higher levels of ammonia in surface water (WHO, 2011). It can also be used as a measure of the health of ambient water, (Manios 2002) and Aziz (2004).

Maximum value of ammonical nitrogen (1.46 mg/l) was recorded during monsoon and minimum (0.2 mg/l) in winter in upper lake. Minimum ammonical nitrogen (0.86 mg/l) and maximum (2.12 mg/l) was observed during monsoon respectively in Shahpura lake. Healthy emergent and flee floating macrophytes have been found to be responsible to bring reduction the ammonical nitrogen level however, the degrade macrophytes increased the value of ammonical. nitrogen. Similar seasonal trends was recorded by Agarawal and Rajwar (2010) in Telhri dam Garhwal Himalaya and Prabhakar et al.,(2012) in Krishnagiri Dam (Tamilnadu). Significant site variation in ammonical nitrogen was recorded in Upper lake during both the years (2016-18) which is further confirmed by ANOVA as the calculated values were higher than the tabulated values (2.78) at 0.05% level of significance (Table-4-5). Similar results were also reported in case of Shahpura lake as (Table -6-7).

Nitrite (0.36 mg/l) recorded highest value in summer season and lowest (0.025 mg/l) during winter season in Upper lake. On other hand the highest value of (0.38 mg/l) was recorded during summer period and the lowest value of 0.08 mg/l was recorded during in winter period in Shahpura lake.

Table -1. Reduction in various physicochemical parameter of various emergent macrophytes in two water bodies

Parameters	Year	Upper Lake	Shahpura Lake
NH ₄ -N	2016-17	52.27	32.89
	2017-18	48.96	38.76
Nitrite	2016-17	43.75	62.07
	2017-18	48.57	52.78
Nitrate	2016-17	64.95	58.72
	2017-18	31.75	53.9
Phosphate	2016-17	58.56	43.57
	2017-18	55.06	33.23

Table -2. Reduction in various physicochemical parameters of various free floating macrophytes in two water bodies

Parameters	Year	Upper Lake	Shahpura lake
NH ₄ -N	2016-17	53.85	34.41
	2017-18	56.25	44.38
Nitrite	2016-17	62.07	62.07
	2017-18	51.61	58.82
Nitrate	2016-17	60.4	58.06
	2017-18	69.23	51.06
Phosphate	2016-17	59.25	48.14
	2017-18	56.01	48.14

Table -2. Reduction in various physicochemical parameters of various submerged macrophytes in two water bodies

Parameters	Year	Upper Lake	Shahpura Lake
NH ₄ -N	2016-17	66.15	Absent
	2017-18	63.16	
Nitrite	2016-17	62.07	
	2017-18	62.5	
Nitrate	2016-17	66.32	
	2017-18	69.47	
Phosphate	2016-17	64.38	
	2017-18	61.39	

The highest value recorded during summer season might be on account of degrading stage of macrophytes while in the winter season macrophytes were in growing stage. The reason for obtaining lower value during winter season is on account of consumption of nitrogen by the growing plants. Similar Trend was recorded by Majumdar et al., (2006) in municipal sewage fed water bodies, Burdwan town, West Bengal; Manjare et al., (2010) in Tamdalg tank 1 Kolhapur (Maharashtra) and Shukla (2017) in Bansagar Lake, Shahdole (Madhya Pradesh).

Nitrate is the extremely oxidized form of nitrogen compound normally present in natural waters. It is a product of aerobic decomposition of organic nitrogenous matter. Major sources of nitrates are fertilizers, decaying vegetation, animal matter, domestic waste and atmospheric fall out.

Maximum value of nitrate nitrogen (3.76 mg/l) was recorded during summer and the minimum (0.81mg/l) value was recorded in winter in upper lake. Similar trend was followed in Shahpura lake recording minimum value (6.1 mg/l) during winter and maximum (18.9 mg/l) during monsoon. Higher values may be attributed to decaying macrophytes and owing to the decrease in water level in lake which results in increase in nitrate value. Decrease of nitrate content in water is due to its utilization as nutrient by of algae and macrophytes during the winter season in both the water bodies. It has been well emphasized that the distribution and growth of aquatic macrophytes are associated with nutrient rich environments particularly nitrate and phosphate which have been noted to favour growth of macrophytes (Frankouich et al. 2006). Several studies have established that the nutrient enrichment can cause significant changes in the density, species composition and richness of aquatic

vegetation in lakes Toivonen and Huttunen (1995); Findlay and Houlihan (1997); Bini et al. (1999); Magee et al. (1999); Lougheed et al.(2001); Rosset et al. (2010); Alahuhta (2011).

Phosphorus is one of the significant compounds required for growth of macrophytes and algae alike. However an excess of phosphate choke up the water-body and consume large amounts of oxygen. In Upper lake maximum value of phosphate (3.89 mg/l) was recorded during monsoon and the minimum (0.73 mg/l) value was recorded in winter. Same trend was in Shahpura lake as minimum phosphate (0.96 mg/l) was recorded during winter and maximum (3.89 mg/l) in monsoon in Shahpura lake. Lower value of phosphate during the winter season are due to their utilization by macrophytes and while higher values in monsoon season are because of decomposing macrophytes besides leaching from soils of nearby catchment areas and domestic waste. Lee et al. (1981) suggested that enhancement in phosphate level may be on account of bacterial activity, sewage contamination, decomposing aquatic vegetation etc. Healthy and growing stage of submerged, emergent and free floating macrophytes were observed during winter season which may be the reason for reduction of phosphate content in present investigation. Similar trend was recorded by Kaushik & Saksena (1991) in Suraj kund Gwalior Madhya Pradesh, Jayabhaye et al. (2008) in minor reservoir Sawana, Hingoli Maharashtra and Kumar et al. (2009) in Jawahar Sagar lake a wetland of Rajasthan. Significant site variation in phosphate parameter was recorded in Upper lake during both the years (2016-18) which is further confirmed by ANOVA as the calculated values were higher than the tabulated values (2.78) $df=4$ at 0.05% level of significance with (Table-8-9)

Emergent macrophytes have been found to bring reduction in ambient nitrate, phosphate and sulphate values up to 50 %.

Nitrate, (64.95%) > Sulphate, (62.86%) > Phosphate, (58.56) > NH₄-N (52.27%) in Upper lake. However, in Shahpura lake they have been found to bring reduction in nitrate and nitrite Nitrite, (upto 62.07%) > Nitrate, (upto58.72%).

Free floating macrophytes has been found to be responsible for bringing about more than 50 % reduction in various chemical parameters Nitrate, (upto69.23%) > Sulphate, (upto 64.41%)> Nitrite,(upto 62.07), Phosphate, (upto 69.23%), > NH₄-N, (upto 56.25) in ambient waters in Upper lake. While in Shahpura lake recorded with the sequence

Nitrite, (upto 62.07) > Nitrate, (upto 58.06%)) in the ambient waters.

Presence of submerged macrophytes has been observed to bring about > 50% reduction in various chemical parameters like NH₄ -N, (upto 66.15%),> Phosphate,(upto 64.38%) > Nitrite, (upto 62.5 %) in upper lake. However, no such phenomenon was observed in Shahpura Lake on account of absence of submerged macrophytes.

Conclusion :- Macrophytes in almost all the water bodies act as filtration beds besides sieving of the colloidal particles they lock up the nutrients into their tissues entering into the system. The physical status of macrophytes i.e., healthy or decomposing is responsible for locking up of the nutrients are releasing of the same.

Table -4: Variation of Amm. Nitrogen in Upper lake (2016-17)

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.15	4	0.53	14.96	4.2E-08	2.55
Within Groups	1.79	50	0.03			
Total	3.94	54				

Table -5:Variation of Amm. Nitrogen in Upper lake (2017-18)

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.71	4	0.67	18.53	1.1E-09	2.53
Within Groups	2.01	55	0.03			
Total	4.73	59				

Table -6:Variation of Amm. Nitrogen in Shahpura lake (2016-17)

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.83	3	0.27	3.55	0.02	2.81
Within Groups	3.43	44	0.07			
Total	4.27	47				

Table 7 Variation of Ammonical Nitrogen in Shahpura lake

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	3.70	3	1.23	7.67	0.00	2.83
Within Groups	6.43	40	0.16			
Total	10.14	43				

Table-08: Variation of Phosphate in Upper lake (2016-17)

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	24.24301	4	6.060752	53.19401	2.05E-17	2.55717915
Within Groups	5.696836	50	0.113937			
Total	29.93984	54				

Table-09: Variation in Phosphate in Upper lake 2017-18

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	28.20171	4	7.050428	76.6207	7.92E-22	2.539689
Within Groups	5.06095	55	0.092017			
Total	33.26266	59				

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Adjustment of Qualified Expatriates in Isolated Communities of the Middle East

Dr. Ilya Bystrov

Assistant Professor, College of Business, University of Buraimi, Sultanate of Oman

Dr. Brindha Natarajan

Assistant Professor, College of Business, University of Buraimi, Sultanate of Oman

ABSTRACT :- With globalization on the march, more and more people are choosing to change the country of residence and become expatriates. Problems related to different aspects of expatriates' life attract more and more attention. The research focuses on adjustment of qualified expatriates working at higher education establishments in two GCC countries – Sultanate of Oman and Kingdom of Saudi Arabia. The article reflects the first (qualitative) stage of research based on 11 studied cases. The research confirmed importance of family for successful adjustment, as well as importance of cultural background and religion of the expatriate. Decreased adjustment potential was revealed for cases when an expatriate has a qualified spouse that can't self-realize.

Key words :- Adjustment, Qualified Expatriates, Cultural background, Religion.

Introduction :- In the recent decades the world has made considerable progress on the way to total globalization. Businesses are operating world-wide; international organizations extend their activities as well. This causes dramatic increase in volumes of temporary, work-related migration across the globe. More and more people are either looking for a better place to earn their living or are sent on short and long-term assignments by their employers. According to International Labour Organization, in 2013 labor migration had reached 150 million people.

Migration streams are different in nature and direction – an example can be a southeastern Asian female coming as domestic

aid to the Middle East, or a Latin American doctor coming to Northern America. In most cases migration means a noticeable change of a familiar setting for something different, if not hostile, which can potentially lead to multiple difficulties in psychological, cultural or social aspects. Such difficulties, in turn, can affect work and family life, stability of an individual and his or her productivity in the long run. Earlier research (Black and Gregersen, 1999) demonstrated that the level of premature return to the home country among US expatriates can reach even astonishing 70%, if they were assigned missions in developing countries.

One of the aspects of our study is to pinpoint the possible changes of values of expatriates. The possible hypothesis can be that expatriates possess a good rate of flexibility in their value system that allows them to easily adapt to changes. Or, individuals who prefer to fly from country to country for their job or business can think about themselves that they are out of boundaries and there is no need to follow the same lifestyle, which they were with in their hometown. As a result, such social values as respect and courtesy, kindness to others, appropriate discipline, attitude towards others, choice of the life style can be affected. Some religious values like reverence for god, adherence to commandments, dress and appearance taken according to the culture adaptation can be affected as well. In simple words – a person that becomes an expatriate is relatively more flexible in handling these norms and values.

From another perspective such flexibility

can allow expatriates to adjust more effectively and adapt faster to the new conditions. Or, alternatively, there may be certain constraints that would slow down or even seize the adaptation process.

In this paper we attempt to contribute to the corresponding body of knowledge by studying adaptation of qualified expatriate labor in the Middle East as well as the effect of/on their system of values. We specifically target expatriate professors and instructors of different origin that are working in higher education establishments located in relatively isolated communities of the Middle East. The reason for the latter is that relative isolation makes it difficult to escape to the familiar cultural setting that can be found in every capital district and ease the process of adaptation.

Literature review :- In general, the studied problem area has a multifaceted nature and has been analyzed by multiple researches in field of psychology, sociology and anthropology. As a rule, these researches are focused on work-family balance, individual values, personality traits and adjustment.

Earlier studies (Carlson et al, 2000) suggest existence of prominent variables like work role ambiguity, family role ambiguity, work role conflict, family role conflict, work time demands, family time demands, job involvement, family involvement, family satisfaction and job satisfaction. These variables are directly and indirectly affecting how interrelation of work and family is happening. Aaron Cohen (2009) discussed ten most prominent individual values, which were identified that they are also variables for work-family interface from the individual point of view. Those are power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, conformity and security. From these studies it is identified that work-family interface is directly or indirectly getting affected by the value system of

an individual. In our study we also plan to dedicate certain attention to this aspect.

Work-Family related issues are now a question in not only national level (Crompton and Lyonets, 2006). The spillover effect is identified and the family variables affect employees' behaviors, particularly work outcomes such as absenteeism, job performance, and turnover (Eby et al, 2005). Several models have been framed of how one domain can influence the other in either positive or negative way (Aaron Cohen, 2009).

Still, there are very few studies of how dynamics of individual values interfere with work and family. Values are assumed to be predictors or moderators of job satisfaction and organizational commitment and considered as criteria's too (Aaron Cohen, 2009). The underlying assumption is that people will be happier and more motivated, satisfied and committed when their values are congruent with those emphasized in the organizational or vocational group (Berings et.al 2004). Another research reveals that people activity in the work domain is likely to depend more on work values than on general values. The role of general values should not be overlooked (Roe and Ester, 1999).

The role of personality traits in work-related behaviors and values are getting attention in the past decade (Furnham et.al. 2005). This study supports the same view that Schwartz's (1992), expressed about importance of human values in his studied of high-tech employees of Israeli-based organizations.

There is another criticism that efforts to explain value difference are too narrow and focus almost exclusively on individualism – collectivism (Francesco and Chen, 2004; Gelfand et al., 2007). The discussion continues as ten distinct motivational types of values were derived from the three universal requirements (Sagiv and Schwartz, 2000).

A notable contribution was provided by InterNations web portal that conducted their Expat Insider 2018 study that covered 18000 expatriates living in 187 countries. They differentiate the expatriate community into 7 categories, namely the Go-Getter (21%), the Optimizer (16%), the Romantic (12%), the Explorer (12%), the Foreign Assignee (10%), the Traveling Spouse (8%), and the Student (7%). While the Go-Getter and the Foreign Assignee move abroad for work-related reasons and dedicate a lot of time to their job, Optimizers simply search for a better life abroad. They value a good work-life balance and find it easy to settle in. Settling down also seems to be easy for the Explorer, while Romantics find it easy to make local friends — the two types move abroad for an adventure and love, respectively.

Ali et al (2003) focused on personality, family characteristics and characteristics of expatriates' work life as determinants of the intercultural adjustment of expatriate spouses. Their study was based on 247 interviews with expatriate spouses and demonstrated importance of such traits as open-mindedness and emotional stability. In addition, family cohesion and family adaptability were found to have an impact on the spouses' adjustment. Of the work related variables, both support from the company and work satisfaction were related to indicators of adjustment.

Holopainen and Bjorkman (2005) carried out a critical review of publications and suggested that such characteristics as stress tolerance, communication skills and ability to communicate with representatives of the local culture are the key characteristics for successful adaptation.

Another earlier research (Winfred and Winston, 1995) based on the study of more than 300 expatriates of multiple origin revealed that family situation usually had a big role in overall success of adaptation. Under family situation the

positive opinion and willingness to live abroad was understood. We also believe that it can have decisive importance and focus on it in our interviews.

A relatively recent research (Mansor, Hamid, Kamil, and Abu, 2014) suggests that a big role in the process of expatriates' adjustment can be played by such factors, as whether or not family members are supporting each other and whether the family members are committed to their families.

Another interesting phenomenon is that upon spending certain time in another country expatriates need to adjust to their home environment back upon their return. Such problems of adaptation are becoming so obvious, that they are started to be discussed even in the media. Thus, BBC noted that people returning from long assignments find it hard to readjust back. The same broadcaster tried to understand internal motivation of those who moved to famous expatriate destinations.

Hypothesis & Methods :- Hypothesis that had been formulated before the beginning of the research is that adjustment of qualified expatriates that are either assigned to or go voluntary for an overseas mission or job in the Middle East will adjust better or worse depending on such factors as their religion, culture of their home country and family situation.

The formulated hypothesis has shaped the overall design of the research. It has been decided to carry it out in two stages:

- Stage 1: revealing and framing the phenomenon itself with qualitative techniques.
- Stage 2: quantitative evaluation of the studied phenomenon

As this article discusses the results of Stage 1, only methodology for this stage is described. With the goal to frame the research goal better, it was decided to carry out semi-structured

interviews within which respondents were requested to share with their life stories, history and current status. The questions were aimed at putting the stories in the desired direction that would later allow to formulate more accurate questions for the quantitative study. For example, respondents were asked about their religion and whether they are practicing, in order to get the initial understanding about its role as a limiting factor for the studied problem. All interviews lasted for 1-1.5 hours.

The semi-structured interviews were paired with participant observation method that allowed studying individuals in their natural environment and disclosing internal motivation of subjects' actions.

At this stage we didn't define neither population, nor sample as the stage of the study is qualitative. Respondents represented three universities that are operating in isolated locations of two Middle Eastern countries – Kingdom of Saudi Arabia and Sultanate of Oman. The total number of studied cases was 11, however only 8 cases are discussed in the article in the full detail. The authors deliberately focus on rather isolated areas of residence, as such stressful conditions help to reveal problems that could be dormant otherwise.

Results & Discussion :- Below we provide some key results of the interviews in the form of case descriptions with some conclusions made on their basis.

Case 1. The first case – respondent A – is a 50-years old male from Indian subcontinent. He is Muslim and extremely religious. Respondent A originates from a relatively wealthy and liberal family, used to travel a lot around the world with his family when he was a child. He has obtained all his degrees from US-based universities. The most part of his teaching career – almost 20 years – he has spent in different countries of the Middle East: Oman, Saudi Arabia and United Arab Emirates.

At the moment of interview A is recently married (just several months) with his second marriage. The wife has been traditionally found by his parents and is about of his age. His first marriage finished just several years ago. His first wife filed a divorce case in the USA after being awarded a PhD scholarship there and moving into this country with their common children. A admits that almost ten years ago he had made a mistake, which his first wife couldn't forgive him for. From his first marriage A has two teenage children.

During the interview A characterizes his state as peaceful, however he gets very emotional and excited and shares that not less than a year ago he was “completely broken – financially, morally and physically”. Such state was a result of several negative factors compressed in a timeframe that was less than a year. According to A, at first his wife left for the PhD program and took children with her, then she filed the divorce case against him, after divorce he suffered a serious illness and had to resign from his current position and return home, then his junior son got sick and his treatment required expensive operation. After suffering all this hardships he turned to religion and became very zealous in his faith, even though before that he hadn't been a practicing Muslim.

The change of place of work was motivated by an intention to flee from environment that reminded about the lost family and caused painful emotions that A couldn't handle any more. In this case family-related problems were a pre-existing condition. Unstable emotional state was overcome by such basic values, as religion. Establishment of the new family played only auxiliary role in this process.

Case 2. The second case – respondent B – is a 35 years old male from Eastern Europe. He is Christian, but is not religious. B originates from a very simple family – both his parents were plant workers before retirement and his whole

life B has aspired to succeed and leave his home town and, if possible, his country as well. B has obtained his basic degree in his home country and PhD degree from an international university based in another Eastern European country. During his short research and teaching career he has spent some time in the USA and worked in a small predominantly Muslim country in Europe. The current contract is the first one for him in the Middle East.

B is recently married, but is already thinking about divorce. After spending several months of his contract in the new cultural setting, B realized that Middle East differ too much from what he used to in any other country he visited before. He registered on a dating site and found a female from his native town that he married just half a year later with a hope that she joins him and shares all the hardships of being in a different culture. Unfortunately, his wife starts to delay arrival and B is seriously considering a divorce. Upon completion of his contract, B doesn't plan to extend it and is eagerly looking forward to leaving the country where he currently resides even without securing another job. He characterizes his state as very depressed and thinks that coming to the Middle East was a mistake.

The case reflected an acute difficulty in adaptation. Even though he had some international experience, B didn't imagine the rate of cultural differences he had to encounter. He wanted to solve the problem with the help of marriage, but failed, as his wife felt worried about moving to a completely alien cultural setting.

Case 3. The third case – respondent C – is a middle-aged male (40 years old) from Eastern Europe. He obtained all his degrees including PhD degree in his home country. C originates from a family of academic researchers and university professors. By the moment of interview he has spent six years in the Middle East.

At the moment of interview, C is divorced. He has been married three times and has two children from the first and the third marriage. Last two times he has married while being already in the Middle East. With his future wives he got acquainted on short trips home and maintained relationships with the modern means of communication. His second wife joined him in the Middle East for about one year, however their marriage was finished mainly because of different interests caused by a 13-years age difference. C married the third time less than a year after his second divorce. The last marriage proved to be not successful and was finished by C, as his third wife refused to join him. Currently, C is looking for the next wife. He gave up the idea of finding a wife in his home country and is looking for somebody from South-East Asia. In spite of unsatisfactory result of his attempts to build a family C characterizes his state as normal. He is disappointed and frustrated with recent failures, but still keeps optimism. Overall, he feels himself comfortable in the current cultural environment, plans to meet his retirement in this region and is looking for a life-long partner that could “share with him his life and plans for future”.

Subject C is not religious, so religion couldn't play neither positive, nor negative role in his adaptation. He perceived establishment of the family as something that could complete his environment, which he couldn't achieve. Despite all these, his personal qualities allowed him to adapt well.

Case 4. The fourth case – respondent D – is a middle-aged male (39 years old) from Indian subcontinent. He is Hindu, but can't be called too religious. All his education – from bachelor degree to degree of Philosophy Doctor – is from leading Indian universities. He originates from a very prominent social background. By the moment of interview he has spent in the Middle East almost seven years.

At the moment of interview D is married and has two children from this marriage. The

marriage has been organized by his parents in accordance with existing national traditions. His wife is slightly younger, well-educated (has a Master-level degree) and originates from the similar social background. D hasn't been living with her for the last 3 years. In the last place of residence they managed to live together only for six months. After having multiple conflicts and arguments, D has come to a decision to have a divorce. However, due to law regulations of his country this procedure would cause too much damage both to him and to his broader family. By mutual concern it has been decided that the wife goes back to the home country and divorce is finalized later.

The family problem situation was caused by routine conflicts that were augmented by wife's intolerance of the environment. The key reason of this was in impossibility of the wife's self-realization at work that limited her only to housekeeping. The problem's origin can be found in movement to the Middle East.

Case 5. The fifth case – respondent E – is a middle-age female (39 years old) from Eastern Europe. She is Christian, but is moderately religious. She has been educated in her home country and has an equivalent of a Master-level degree, with several long-term internships in a European country and USA. She has spent in the Middle East 3 years. The current contract is her first assignment in the region.

E is a widow and has two children that are left in her home country with grandparents (the husband was lost in a car accident, while he was driving a car with another woman only several years after marriage, which was a very traumatic experience, according to E). The decision to continue the teaching career internationally had been made by E when her children got older (13 and 14 years respectively). On the second year of her contract E started relationships with a local citizen, who is not related to her place of work. As cultural norms of the country of residence strictly limit possible interrelations between representatives of opposite genders, their relationships are kept

in secret.

The subject's key motivation was financial. The part of adaptation was in maintaining relationships with the local citizen. Such type of expatriates can be limited in adaptation opportunities, as due to local regulations it is hard for female employees to bring family members.

Case 6. The sixth case – respondent F – is a 50+ Nigerian male. He is Christian, but has never been religious. Starting from his late childhood he was brought up in the UK, where he obtained all his degrees, including PhD in Engineering. At the moment of interview he was married and had two adult children. During his work he was visited by his wife once for two months in 3 years.

At the moment of interview he was getting ready to leave the country because of legal problems. He misrepresented himself as a selection panel leader for the university and interviewed females pretending that he is authorized to make hiring decisions. Once he found the one he liked, he sent her a fake job offer, managed to get a visa for her and brought her into the country. Upon arrival the female recognized the misrepresentation, complained to authorities and F was arrested. The case was settled when F compensated the trouble with some money, however the police report was sent to employer and F's contract was immediately terminated.

During the interview F was asked about the reasons why he did this. The respondent could only say that he felt very lonely. When asked whether he understood that such misrepresentations would inevitably be revealed and that the possible consequences would be severe, he got very emotional and stated that it didn't matter and he "just wanted to have someone by his side".

Subject F represents complete failure to adapt to the new norms of behavior, which was caused by the conflict of normative life

foundations.

Case 7. The seventh case – respondent G – is a middle-age female (40 years old) from India. She is a Hindu, is religious. She has been educated in her home country and she has a Ph.D. She has spent in the Middle East 4 years. The current contract is her first assignment in the region.

G is a widow and has one child, that is left in her home country with grandparents (the husband was lost in a bike accident). The decision to continue the teaching career internationally had been made by G when her child got older (9 years). She is living alone in this region and plans to return to her country soon in order to spend more time with her immediate family.

Obviously, financial aspect is a strong motivator that can help to overcome many sacrifices. The subject adapted to change of residence well.

Case 8. The eighth case – respondent H – is a middle-aged male (45 years old) from Indian subcontinent. He is Hindu, and highly religious. All his education – from bachelor degree to degree of Philosophy Doctor – is from leading Indian universities. He originates from a very prominent social background. By the moment of interview, he has spent in the Middle East almost twelve years. An arranged marriage almost eight years before and he brought his wife to this region. They were running a normal life and his wife leaving for the maternity to home country back, after six months of time he received the news she was not comfortable with the life in their place of residence and didn't want to come back. Moreover she continuously demanded H to come back to home country. The tension still continues and all these years he is living alone with the hope that his wife will come back one day.

Despite of being a representative of another culture, the subject visibly adapted well

and mostly enjoys his stay. His wife, being a well-educated woman, didn't feel happy because of lack of self-realization in the alien culture. She didn't play much of a role in H's adaptation. Rather, his attempt to make his life complete caused tensions in his family.

Cases 9-11. The last 3 cases are very similar and joint as one. All 3 cases represent males who are practicing Muslims. Two of them are from Indian subcontinent, while one is from the Middle East. Two of them have Master-level degrees, while one has completed a doctorate in economics. All of them are married and all families have children – two, three and three respectively. They stay in their places of residence with their families. Their spouses have similar education – all of them have bachelor degrees obtained in the higher educational establishments of their home countries. In all cases the spouses are engaged mostly in keeping their households, however in one case the spouse is partly employed and is doing some distant work in the internet. All respondents have already spent between 4 and 6 years in their places of work with some previous experience in the region. All cases characterize their state as good and report no major problems (still, two of the cases mentioned that the salary could be a bit higher, as existing level of family expenses put some constraints on saving potential). All respondents say that they are ready to stay with their employer as long, as possible, unless they have a better offer from another one.

In all cases respondents adjusted very well to the change of the country of residence. No one reported any major challenges of the transition, except of minor financial issues. When asked, all of them mentioned that to a certain extent for them it was like moving to another city than to another country. Similarity of cultures, proximity of the immediate family and family support made the transition almost seamless.

Further in the conclusion section we summarize the major findings.

Conclusion :- The different stories derived from the interviews allow us to make certain conclusions:

- In some cases expatriates come to the host country with unsettled family life. The studied cases show that the problem that was unsolved in their home country pertains and even becomes magnified when they move to another cultural setting.
- Difficulties for female expatriates to bring their children or family members to stay with them decreases their adaptability and play overall negative role. Actually, under the given circumstances female expatriates perceive their employment only as temporary engagement and never forget about families left at their home countries.
- Absence of self-realization opportunities for well-educated spouses of expatriates leads to tensions, conflicts and ultimately to spouse's departure. The studied cases clearly reveal such situations in cases of non-Muslim expatriates of different geographical origin (Christians or Hindu, both practicing and not practicing). As a result, such expatriates lose a considerable part of adaptation potential, which decreases the time of their expatriate career.
- Financial aspect is a strong motivating factor in majority of cases. As the key initial goal in every studied case was to increase the level of earnings of the self or family, the salary difference between what respondents were earning in their home countries and what they started to earn in the host country added them strengths and power to adjust and adapt.
- Expatriates from Muslim regions tend to be more religious than others. Their success rate in case of transition to the Middle East is higher, mostly because of the similarity of cultures. However, one case demonstrated that a Muslim that was exposed to the Western lifestyle can potentially experience

more complications, unless he/she returns to the original cultural and religious norms.

- Expatriates from other than Muslim regions tend to be less religious and to have less settled family life. At the same time they tend to be much less successful in adjustment to the conditions of the host countries. Their adaptation mechanism experience extra challenge by a different culture and without an option to seek a getaway in religion and/or family their chances for successful adjustment are lower.

Upon completion of this first stage of research, the authors intend to proceed with the quantitative stage. The qualitative stage allowed to reveal a difference in adjustment and adaptation mechanisms of Muslim expatriates and representatives of other religions (or those who don't perceive themselves religious). As the interviews were conducted only in two Middle Eastern countries, this is applicable only to "from any place" to "Middle East" transitions. One of the tasks of the quantitative stage will be to give numerical characteristics to this phenomenon.

Another task will be to attempt to trace the changes and reveal the structure of value systems of expatriates. The carried out interviews are not sufficient to make any conclusions in this respect, however researchers believe that it should be a part of the quantitative stage of the study.

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Changing Global Logistics Scenario: Preparing for the Future

Dr. S. Sudhakar Babu

Associate Professor, Human Resource Development Centre, University of Hyderabad, Hyderabad

A few important global events have received almost no attention in the country. Seemingly unconnected, these events will have far reaching economic and trade ramifications for the Global and Indian economy. All these events are directly connected to the global logistics, transportation and commodity supply. As a natural corollary, these will have an impact on businesses, consumers and governments. logistics as a business discipline started conceptualising in the business-related literature in much early 1960s, then it was mentioned physical distribution.¹⁰ This is because any impact on sea trade has major reverberations since 90% of the world trade is seaborne. This is more important considering that the global logistics industry (all segments) is worth US\$4 trillion. Egypt has recently announced the opening of expanded Suez Canal water. The second event was the announcement that the expanded Panama Canal would open to traffic in early 2016.¹¹ The third event was Iran's announcement that India will build a port and help build an alternate sea and land trade transit route passing through their country and some other Central Asian Countries overland to reach Europe. This new land and sea route will help trade from India to Europe without passing through Suez Canal. India will also receive gas from Central Asia without having to pass through hostile Pakistani or Chinese territory. Very recently Brazil's Iron ore company "Vale" reintroduced giant ships that can carry 4 lakh tonnes (deadweight tonnage or DWT in shipping terminology) of ore to China. These ships called Valemax were first introduced in 2011 to help reduce cost of carry iron ore from Brazil to

China and to give Vale a competitive edge over rivals by carrying large quantity of dry commodities. To place the size of these ships in perspective: around 18 ships such large ships can carry all the Iron ore 70 lakh tonnes of Iron ore exported by India in 2014. The consequences of these events will play out over the next decade and were hard to imagine a few years ago. Global logistic Industry Trends, Share, Size, Growth, Opportunity and Forecast of 2018-2023 showed the global logistics market reached a value of US\$ 1,171 Billion in 2017.¹²

Logistics refers to the process of planning and coordinating resources and services from the point of origin to the point of consumption. This process provides efficient and effective transportation and storage of goods and services. The major components of logistics involved in the proper functioning of an organisation or a business include inventory management, inbound and outbound transportation, material handling, warehousing, etc. In recent years, the logistics industry has benefitted from the advancements made in technology, integration, globalization, legislation, and confederations.

The Technological advancements which involve automated material handling equipment, biometrics, GPS, etc. aid organisations and businesses to work proficiently, have helped the growth of the logistics market across the world. It doubled with the expansion of internet retailing and the increased the popularity of online shopping. These are some of the other factors supporting

¹⁰<https://www.referenceforbusiness.com/management/Log-Mar/Logistics-and-Transportation.html>

¹¹<http://www.compassdigimag.com/2016/october/industrytrends.html>

³www.researchandmarkets.com/reports/4617666/logistics-market-global-industry-trends-share

the market growth¹³. Looking forward, the market is projected to reach a value of US\$ 1,374 Billion by 2023, registering a CAGR of 2.7% during 2018-2023.¹⁴

Expansion of Panama Canal and Suez Canal :-

Egypt recently expanded the Suez Canal. Panama Canal expansion is due to be completed in 2016. The 72 kms Suez Canal expansion entailed 37 kms of expansion as well as deepening of the existing canal as well as another 35 kms of creating a parallel waterway close to the present one. This will help double traffic from the present average of about 1426 ships per month (or 48 ships per day)¹⁵ by 2023 thereby increasing revenues for Egypt to US\$13.2 billion from the present US\$5.3 billion. The new route will reduce time taken to pass through it from 18 hours to 11 hours. More importantly, it allows the passage of much larger ships. Similarly, Panama has completed more than 90% of the work on expanding the Panama Canal. After completion the canal will permit 97% of the global merchant ships to pass through it. This is especially important in container shipping because once complete the type of ships that carry almost 45% of the container cargo to USA.

	Suez Canal	Panama Canal
Year of Opening	1869	1914
Length in Kilometers	193.12	77.24
Share of total sea trade	8%	2%
Ships passing	17148	13482

¹³<https://markets.businessinsider.com/news/stocks/global-logistics-industry-report-2018-1027521858>

¹⁴<https://www.researchandmarkets.com/reports/4617666/logistics-market-global-industry-trends-share>

¹⁵<http://www.suezcanal.gov.eg/TRstat.aspx?reportId=2>

through (2014)		
Net Tons transiting (2014)	963 million	327 million
Cost of Expansion	US\$8.5 billion (Rs.54,400 crore)	US\$5 billion (Rs.32,000 crores)

Compiled from different sources

The introduction of new ships to carry commodities and containers is another important step that is bringing out major changes in the sea trade in the next few decades. Apart from Vale which can use ships to carry out dry commodities in bulk, this move is present even among container shipping companies. Maresk Line, the largest Danish container shipping line (which carries 15% of the world's sea container freight recently ordered ships that are 400 meters long and 59 meters wide with a capacity of 19,678 containers that are 20 feet to replace their older ships which can carry 18,224 containers that are 20 feet. These larger ships are expected to reduce costs for the customers and increase margins for the company as provide the advantage of economies of scale.

All the above changes have immense economic implications for India. Apart from the above scenario, Indian logistics scenario in the next decade or two may be at the cusp of phenomenal changes. India could benefit immensely if its plans to expand trade and cooperation with Iran fructify. This has the potential for reducing cost of transportation, increase margins of companies, reduce costs and give India access to gas thereby speeding up the economic and trade cycle in India. If India's plans to develop ports in Iran and build a transit route that combine sea and road to Europe through Iran and Central Asia materialise, it is estimated that they can halve the travel time for goods from India to Europe and reduce costs by 70%. They can take this alternative route without going through the longer Suez Canal or

without passing through hostile Pakistan. This could also facilitate access to oil and gas in Central Asian countries like Turkmenistan and other CIS countries for India.

An immediate consequence of these new, much larger ships is that they can increase the volume of goods transported while reducing the factor cost of goods transported. The expansion of the Suez and Panama canals means that larger ships can easily move through the expanded canals (though Valemax cannot go through the canal as yet). Together these changes along with other technology investments will shorten the cycle across the world – even in countries like India. Once the India-Iran-Europe Transit is ready, a 10 day reduction in time taken will make a big difference in the cost of goods and services. An important unanswered question that only time answer is if there is sufficient demand to absorb such a huge capacity addition and the impact of a shortened economic cycle. It has been pointed out that the Suez expansion comes at time when traffic is declining (down from a daily average of 58.5 ships in 2008 to the present 48). These doubts arise largely because of the consequence of the global credit crisis, slowing of China and the problems in Europe. One thing that we can rest assured is that shipping companies in the future will prefer large ships in order to reduce costs and protect their margins in a world economy that is rapidly slowing down.

If India has to take advantage of the changes that are underway in the global economy, India needs to rapidly upgrade its infrastructure. These include speeding up the building of inland waterways, coastal shipping, ports, airports that cater to freight, road network, etc. If India cannot do so, there is a risk that Indian manufacturers will not be competitive in the global market place. On the positive side, the government has announced its intention to invest in Inland Water Transportation (IWT). Any success with IWT

can decisively alter the Indian economy from a structurally high cost one to a low cost economy since IWT can facilitate transfer at least 10 times the quantity of goods fraction of the cost. In the past, it was estimated that the cost of inland transportation costs Rs.0.40 per tonne per kilometre while the cost of transportation by Rail is Rs.0.50 and by road nearly Rs.0.90. However, the global logistics boom and IWT can be a double edged sword, especially in a country like India. Unless the governments are prepared and prepare the people, the coming changes can revolutionise and wreck havoc on the present transportation sector, especially in the lorry sector. An example best illustrates this: the vessels that are proposed to transport goods on the Krishna River from Vijayawada to Kakinada are expected to carry 100 tonnes initially and later upto 1000 tonnes. In contrast the maximum possible transportation by a lorry is about 30-40 tonnes. That in turn will have huge repercussions on employment and nature of transportation. In short, the Indian logistics sector has to completely rework its business model – something that it has to prepare from today rather than wait for the last minute. These changes will invariably have major change in the employment scenario. It is unlikely that IWT vessels will need so many people directly. Instead it will require a large part of the workforce to be redeployed (like for loading/unloading, etc). Hence, different parts of the transportation value chain require different kinds of skills - which cannot be learnt in one day. They have to be acquired gradually. Hence, the best time to start preparations for the future on the part of Government and businesses is today.

This does not mean that India benefits automatically. We have to build larger ports which can dock and unload goods quickly. The average turnaround time for a standard container vessel in Hong Kong, Singapore and most of the ports in China is 10 hours or maximum of 12 hours. In contrast, in India it

varies from 3-4 days. There is a need for India to build larger ports that can allow large vessels to dock in the country and to load/unload commodities and containers. Otherwise these large ships will simply avoid India and we will miss an opportunity to change the fundamental nature of our economy - from a structurally high cost one to a low cost one. More importantly, we need to link these port cities to our hinterland using IWT. Development of coastal shipping may actually help. Example: if a huge carrier can dock in Vizag then using coastal shipping can help transfer goods from Vizag to Kakinada then transfer them inland using IWT. Since tens of lakhs of tonnes of goods will move through large vessels the cost for these commodities can fall dramatically.

Thus, if India cannot take advantage of the major structural change that is likely to come about in global logistics and transportation sector in the next decade, it will be yet another lost opportunity. Importantly, taking advantage of these changes will mean a complete structural transformation of India from a high cost economy to a low cost economy.

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Human Right Violations of Dalit Women in India: Special Reference to Odisha

Mr. Sudhansu Sekhar Das Mangaraj

Hod. Dept. Of Political Science, R.D.S. Deg. Mahavidyalaya, Kundabai, Mayurbhanj

With the spread of democratic values, revolution in information technology and consequent rise of popular awareness and aspirations, the concept of Human Rights assumed critical significance at both national and international levels. The notion of Human Rights is a gift of contemporary human thought to culture and civilization of the present era. The struggle to promote, protect and preserve human rights changes and holds continuity in every generation in our society. Man is born to be free and all that he must do is that be devoted to the well being of human every kind of human being- of whatever race or religion, caste or creed or whatever sex and in all societies, developed and underdeveloped, traditional or modern. It is often argued by some scholars that this concept originated in the West and got embodied in the UN Declaration in 1948. They stress that the British Magna Carta (1215), which for the first time formulated human rights and liberty of the individual against the authority of the state and which was followed by the Petition of Rights (1627) laid the foundation of this concept. Here is no doubt that we are in the midst of a great revolution in the history of women. The evidence is everywhere; the voice of women is increasingly heard in Parliament, Courts and in the streets. Unfortunately, women in general and Dalit Women in particular in this country are mostly unaware of their rights because of illiteracy and the oppressive traditions.

CONCEPT OF HUMAN RIGHTS :- In India, on the other hand, references occur as early as in the Rigved to several civil liberties such as Tana (body), Skridhi (dwelling house) and jibasi (Life). Long before Hobbes, the Indian epic, Mahabharata, described the civil liberty of the

individual in a political state. Ancient Indian society was a highly structured and well-organised affair with the fundamental rights and duties not only of individuals, but also of classes, communities and castes clearly laid down. The concept of Human Rights is thus not entirely Western in origin nor, it is very modern.

The history of human rights is a history of people's struggles for liberty and for enforcement of fundamental rights. Human rights can be defined as those rights, which are inherent in human nature and without which human beings cannot live with dignity as human beings. The Universal Declaration of Human rights (UDHR) 1948 was a milestone in judicial and human history. The international Human Rights Conference in Tehran (1969) called by the general Assembly of the United nations to mark the International Year of Human Rights. Human Rights, generally speaking, are regarded as those fundamental and inalienable rights that are essential for life as human beings. To quote A.J.M. Milne, "There can be no human community without rights. Having rights is part of what is to be member of any community. According to Scott Davidson, "the concept of human rights is closely related with the protection of individuals from the exercise of state, government or authority in certain areas of their lives; it is also directed towards the creation of societal conditions by the state in which individuals are to develop their fullest potential". According to R.J. Vincent, Human Rights are something that everyone equally has by virtue of "their very humanity" and also by virtue of their being grounded in our appeal to our "human nature".

Meaning Dalit :- The history of the social origin

of Dalits is age old. Among the early Hindu epics, Dharma Shastras, and Smritis dealing with the origin of Varna system, Rig-veda is the old one which describes that all the four varnas i.e. Brahmin, Kshyatriya, Vaishya and Shudras are originated from different limbs of the almighty. Consequently, in the social sphere the Dalits were deprived of the socio - cultural, civic, political and economic rights. In this connection, Srinivas observes that untouchability is more than ritual rank and pollution it carries, there is a congruence of economic, ritual and political status in the case of Dalit. Dalit, which literally means 'Oppressed' or 'Broken, was used as early as in 1930s as a Hindi and Marathi translation of 'Depressed Classes', the term British used for what are now called the Scheduled Castes.

Dalits are known by different names. Mahatma Gandhi called them Harijan, the children of God. Religious books of the Hindus called them Sudras. The Government of India officially calls them "Scheduled castes". Scheduled means they are on a government schedule that entitles them to certain protections and affirmative action (Prasad, 2001). In Indian languages, the term Dalit literally means downtrodden and conveys the sense of an oppressed people.

B.R. Ambedkar defined it comprehensively, that Dalithood is a kind of life condition which characterizes the exploitation, suppression and marginalization of Dalit by the Social, economic, cultural and political domination of upper caste Brahminical order. In the similar vein, S.P. Punalekar, Ghanshyam Shah and Gail Omvet Define Dalit Category more or less as an intellectual construct and the expression of powerless and voice less. K.L. Sharma attributes "Dalit" to be more emotional and effectual than rational and logical.

According to Gangadhar Patawane, a Dalit writer, "Dalit is not a caste. Dalit is a symbol of change and revolution. A Dalit believes in humanism. He rejects existence of God, rebirth,

soul, sacred books that teach discrimination, faith and heaven because these have made him a slave. He represents the exploited man in his country. For Gopal Guru (2001), the term does not merely express identity a sense of who the Dalits are but it also conveys their aspiration and struggle for change and revolution.

Violence against Dalit women - impunity :- In India Human Rights Organizations and newspapers tell countless stories of Dalits who have been beaten, unlawfully detained, tortured, raped, killed and had their homes burned in caste violence. Human rights violation takes place in the form of women right violation, caste right violation and other types of violations. Rape, assault, molestation, brutal killing, abduction, dowry death are very important violations against Dalit women. Discrimination against Dalits is also political in nature. Often their right to vote is taken away through violent means.

Vulnerably positioned at the bottom of caste, class and gender hierarchies, Dalit women experience endemic gender-and-caste discrimination and violence as the outcome of severely imbalanced social, economic and political power equations. Their socio-economic vulnerability and lack of political voice, when combined with the dominant risk factors of being Dalit and female, increase their exposure to potentially violent situations while simultaneously reducing their ability to escape. Studies on violence against Dalit women in India present clear evidence of widespread exploitation and discrimination against these women subordinated in terms of power relation to men in a patriarchal society, as also against their communities based on caste."

Orissa is a state in India with an estimated population of 32 million. About 84 percent of this population lives in villages and one third of them do not own any substantial extent of land other than their homestead. An estimated 28 percent of this population are

Dalits. Until recently, this large Dalit population suffered unchallengeable exploitation by the dominant castes. The Dalits constitute 16.53% of Orissa's population. They continued to face discrimination and other human rights violations (ACHR, 2009). The life of Dalits is increasingly vulnerable in the state of Odisha due to a persistent lack of assured entitlements to augment their existing resource base. Land alienation has deprived them of their land; forest legislation has turned them into encroachers on land they have always been used; and they have also been disproportionately affected by displacement due to mining operations, irrigation projects, wildlife sanctuaries etc. It seems that the Government of Odisha is pursuing an agenda of "**Hidden Apartheid**" of discrimination against Dalits in its policies and programs.

In India the Dalits constitute about 20.8 percent of India's population in 2011 with little less than half being women, which means that 80 million Dalit women face multiple forms of discrimination in this country alone. The percentage of the Dalit community literacy (37.41%) is far below that of the national average (52.21%) in the 2011 Census. An overwhelming majority (nearly 77%) of the Dalit's workforce is in the primary or agricultural sector of the economy. The increase in the number of crimes against the Scheduled Castes recorded by the police is evidence from the fact as against 180 cases registered with the police in 1955, the number of cases increased to 509 in 1960, to 18,336 in 1991 to 24,973 in 1993 and to 33,908 in 1994 and to 52,160, in 2011. The highest number of crime against Scheduled Castes are reported in Uttar Pradesh, followed by Rajasthan, Madhya Pradesh, Gujarat, Tamil Nadu, Andhra Pradesh, Bihar, Kerala, Karnataka and Maharashtra, For example, of the total crimes against Scheduled Caste reported in 1994-47.7 percent were reported in Uttarpradesh, 14.1 percent in Rajasthan, 11 Percent in Madhya Pradesh, 5.7 percent in

Gujarat, 4.3 percent in Tamil Nadu, 3.5 percent in Andhrapradesh and 13.17 percent in other States and Union Territories. Further 13.4 percent of cases were reported as cases of hurt, 44.4 percent as Prevention of Antrocities (SC/ST), 2.9 percent as rape cases and 1.6 percent as murder cases.

The rate of conviction in cases of atrocities against Dalits is very low. According to information provided by the Inspector General of Police (Social Justice and Human Rights), there were 18,752 cases-4,445 fresh cases and 14,307 "brought forward" cases-involving SCs before special courts between 2003 and 2009. Of these only 412 ended in conviction, where as there were 3,354 cases were pending at the close of the year. Official sources acknowledged the prevalence of injustices such as denial of rights to Dalits to worship in temples, bury or burn their dead in common burial or cremation grounds, denial passage to graveyards; and denial of land, water and promotions.

Violence against Dalit women reinforces caste norms wherein they are seen as available for all forms of violence, especially sexual violence. According to India National Commission for Women, "In the commission of offences against... (Dalit) women the (dominant caste) offenders try to establish their authority and humiliate the community by subjecting their women to indecent and inhuman treatment". According to the National Commission of Human rights of India, more than 62,000 human rights violations are recorded annually. On average, two Dalits are assaulted every hour, three Dalit women and children are raped, two Dalits are murdered, and at least two Dalits are tortured or burned every day.

Constitutional provisions :- There are meaningfully implicit in the system of the Republic and made more explicit in the Preamble and Parts III & IV which have been called the conscience of the constitution. The core objective of the constitution from the socio-economic aspects of human rights is spelt out in

Arts.38 and 39 of the constitution. The articles incorporated in the Indian constitution have the bearing on Human Rights discourse. To name a few-Right to equality (Arts. 14-18), Right to Freedom (Art. 19-22), Right against exploitation (Art. 23-24), Right to freedom of Religion (Art. 25-28), Articles related to reservations to SC & STs 330,332, 335, 338, 339 & 340 (Jogdand, 2001). Article 17 of the constitution of India has abolished untouchability and its practice in any form has been strictly forbidden. Later, the Parliament enacted Untouchability (Offences) Act, 1955 to give effect to Art 17. To make it more stringent, the Act was amended in 1976 and was renamed as the protection of Civil Rights Act, 1955 along with the normal provisions of the Indian Penal Code, had been found to be inadequate in providing safeguards to the scheduled Castes/Scheduled Tribes against several crimes. Thus, yet another Act, known as the Scheduled Caste and Scheduled Tribes (Prevention of Atrocities) Act, 1989 was also passed by the Indian Parliament. According to the report of Human Rights Watch (1999), untouchability was abolished under Indias constitution in 1950, the practice of untouchability – the imposition of social disabilities or persons by reason of their berth in certain castes – remains very much a part of rural India. Human Rights Watch (2007) finds out that “discriminatory and cruel, inhuman degrading treatment of over 165 million people in India has been justified on the basis of caste.

According to the Prime Minister Manmohan Singh’s comment on December 27, 2007, Dalits have faced a unique discrimination in our society that is fundamentally different from the problems of minority groups in general. The only parallel to the practice of untouchability was Apartheid in South Africa. Untouchability is not just social discrimination. It is A blot on human society. According to the report of the Ministry of Social Justice and Empowerment as many as 630 cases of crimes were reported to have been committed against

persons belonging to the Dalits community in 1996. As per data from 1981to 1987, about 508 persons belonging to the Scheduled Castes were murdered, about 2343 hurt, 847 subjected to arson, 754 became victims of physical violence and about 12000 were subjected to other offences, on average annually.

Forms Of Violence Against Dalit Women :-

There are nine major forms of violence against Dalit women; six being violence in the general community – physical assault, verbal abuse, sexual harassment and assault, rape, sexual exploitation, forced prostitution, kidnapping and abduction; and three being violence in the family – female foeticide and infanticide, child sexual abuse and domestic violence from natal and marital family members. The more frequent forms of violence that are perpetrated against the majority of Dalit women are verbal abuse, physical assault, sexual harassment and assault, domestic violence and rape, in descending order. Child sexual abuse in terms of particularly early child marriages and sexual relations with minor Dalit girls below the age of 16 years is also prominent. A recent three year study of 500 Dalit women’s experiences of violence across four Indian states revealed that the majority of Dalit women faced one or more incidents of verbal abuse (62.4%), physical assault (54.8%), sexual harassment and assault (46.8%), domestic violence (43.0%) and rape (23.2%). The majority of Dalit women face violence in public spaces streets, women’s toilet area, field etc, violence in work place, government spaces. The most common place for violence is within the home.

Suggestions :- However, on the account of the above discussion, I would like to offer some suggestions which might help to halt the violation of human rights of Dalits. These are: i) conscious raising among the Dalits, ii) abolish labeling approach change the mindset of the higher castes, iii) implement the legal provisions without any fear or favor, iv) coordination between the central and state governments

while working out legal provisions, v) states must be powerful and should not remain as an interventionist agency, vi) penalize the village which observe social boycott against Dalits, vii) punish the people severely who use legal provisions to settle their personal scores, and viii) sensitize the people to the norms and values of the human rights movement. Apart from this, there is a need of the involvement of the Non-Governmental Organizations (NGOs) to create awareness among the rural masses regarding the human rights they should organize the people from village level to state to promote and protect the basic human rights of the people.

Conclusion :- The concept and practice of human rights is the hallmark of any modern society. Human right is a dynamic concept and endeavours to adapt itself to the needs of the day. The Dalit human rights have to be taken to the center stage of any political and social movement in the country. In this 21st century it is absolutely necessary that common people need to be sensitized about the prevailing atrocities against Dalit women. Dalit woman is a social force, a cultural symbol and has a historical background. They are estimated to contribute eighty per cent of total labour to strengthen the national economy. Ambedkar rightly said "Rights are protected not by laws but by the social and moral conscience of society". Dalit women fight for liberation. They are not voiceless, and capable to raise their voice. Their Rights are rising like the sun. Nobody can deny this sunrise. (Bandhu.2003) To conclude, there is a growing need to capture violence of Human Rights of Dalit women so that talent and potential of Dalit women can be used for development of the nation. To fulfill these dreams women in general and Dalit women in particular need to be empowered with their basic rights. Dalit women speak, 'Humans, We are all humans'. So, voice of the voiceless is voiced here and that should be heard by society and the mainstream as well.

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A study on Farm Automation employing IOT

Deepali Bhanage, (Assistant Professor)

Utkarsh Sharma, Aishwarya Khandagale, Mayuri Kawade, Niharika Gurjar

P.E.S Modern College of Engineering, Pune

Abstract :- Agriculture is the broadest economic sector and plays an important role in the overall economic development of nation. Automated farming is a developing sector which has made its way to various fields of engineering and technology and slowly being implemented in the field of agriculture. Very soon Farm Automation is to take over the conventional methods of farming. Automation of farming practices has proved to increase the food production levels, lessen the work load of farmers, decreasing the risk factors and enabling the to do the work which are beyond human limits. Automation is best achievable by the use of IOT concepts. IOT has provided the ways in which farming processes can be done by farmers having the control at their fingertips.

Keywords :- Farm Automation, IOT, Nodemcu, ESP8266, Thingspeak, DHT-11.

Introduction :- In recent years the factors of population growth, need for increased food production and the increase in levels of global warming has become an important issue for monitoring farming. The rapid decrease in agricultural land and the demand for more food production is increasing day by day which are one of the environmental problems aroused due to the population growth. Internationally America and Europe are the most advanced countries in the agriculture areas in terms of mechanization and automation, and the rest of the world is vigorously adopting the trend. By the end of 2049 the annual production of crops needs to increase from the current level of 257 million tons recorded in 2014 to 333 million tons. India currently has a level of 40-45 percent of mechanization and is lagging behind Brazil and China. All these problems call for an easy

but efficient way of solving the needs of the growing population which can be achieved by the use of modern-day engineering and technologies. Mechanization of agriculture process has proven to help reducing the manual work and increased efficiency of farms. The idea of Smart Farming or Farming with IOT suggests a system of wireless sensor network that collects data from different sensors present in the system and give the data sensed back to the main server for processing and monitoring. The method of smart farming focuses on improving the production and efficiency of the crops yield. Internet Of Things or IOT is system of interconnected computing devices, digital machines and objects, also people and animals can be a part of the system. Every component is given a UIDs and ability to communicate with system through various activities without requiring human to human or human to machine interaction.

This paper proposes an internet enabled remotely accessible bot, which enables us to analyze and monitor the environment. The system consists of two parts mainly Front End and Back End.

While front end deals with giving instructions and displaying the sensed data for monitoring the crop production, the band end is used for processing the data sensed and sending to the desired server. This system contains a website which is directly connected to the bot and gives farmer ability to control this bot remotely, as well as sense the data using sensor which can be used for controlling and monitoring the field .The whole systems data is stored on a cloud-platform. This data, can be used to notify the farmer about current climatic

condition and further can help them to take correct measures.

Literature survey :- GPS based vehicle system [1] proposes smart farming by the aid of automation and IoT technology. Smart GPS based remote controlled vehicle that performs various tasks like monitoring fields to prevent thefts, scaring birds and animals, sensing soil moisture, spraying fertilizers and pesticides. Smart warehouse consists of the AVR microcontroller in the center, connected to the various sensors like temperature sensor, humidity sensor, obstacle sensor, and depending on data received through the sensors, the heater, cooling fan, alarm and bulb will be switched ON/OFF.

Prathibha S R [2] proposed a work on IOT based agriculture monitoring system which consists of CC3200 single chip with integrated microcontroller which is first high-performance Wi-Fi wireless microcontroller with user-dedicated functions, TMP007 temperature infrared thermopile sensor, HDC1010 digital humidity sensor, full bridge converter, phase shifted, 600-W high-efficiency power supply is used. Camera is interfaced with CC3200 to capture images and send that pictures through MMS to farmers mobile using Wi-Fi.

In [3] Cloud database is used to store and share the crop information's, prices of the fertilizers and crop prices. Big data in agriculture domain is used for supply chain management of agro products, to minimize the production cost. It has been used for analyzing the soil types and properties to classify. This paper aims at making agriculture smart using

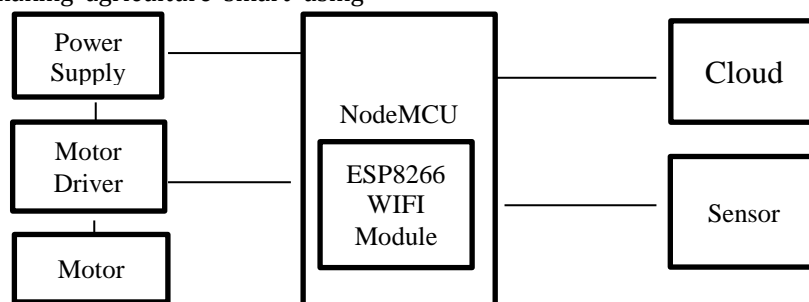
automation and IoT technologies based on real time field data.

In [4] paper, focus is on integration of IoT and cloud which is called as Cloud IoT. IoT supports high heterogeneity of devices, different protocols for communication. Integration with cloud solves the problem of scalability, interoperability, efficiency, availability and security. Application driven by the Cloud IOT Healthcare, Smart city, Smart Home and Smart Metering, Smart Energy and Smart Grid, etc.

This [5] gives brief introduction about aspects of IoT and its specific use in agriculture. It focuses on network infrastructure which is at core of IoT implementation. In any IoT implementation connection is the basic necessity. Trends in IoT are security, low energy consumption, device integration, creation of user friendly solution, etc.

In [6] main enabling factors of IoT factors are RFID, sensors, tags, actuators, etc. The Internet of Things (IoT) is the area which penetrates the advantages of Wireless Sensor and Actuator Networks (WSAN) and Pervasive Computing. Anand Nayyar's [7] aim is to propose system which is IoT based Agriculture Stick assisting farmers in getting live data and monitor environment smartly and intelligently. The proposed agriculture stick is based on Arduino technology, breadboard and various sensors. ThingSpeak API are used to read and write data.

BLOCK DIAGRAM :- The following figure shows the block diagram of the proposed system.



The system is controlled and monitored via website. The central part of the system is NodeMCU which is an open source firmware consisting of ESP8266 WIFI module and provides connectivity with IOT platforms. Programming languages like 'LUA' and 'C' are used with arduino software to do the coding part. NodeMCU has 10 GPIO (general input output) pins which can act as PWM,I2C,1-wire etc. ESP8266 is used to connect to the internet. NodeMCU is connected to the DHT11 sensor which is a stable and calibrated device used for monitoring temperature and humidity. The output is digital hence easy to use without any conversion. The range of measurement for temperature is between 0-50 degree Celsius and for humidity it is 0-95% RH.

The data is stored on an open-source cloud ThingSpeak. ThingSpeak provides API to store and retrieve data from the device that is used to monitor the working site using HTTP protocol via Local Area Network. In the system ThingSpeak is used to show the real time values of temperature and humidity to help the farmer understand about current status and to make proper arrangements if needed. NodeMCU is connected to ThingSpeak via internet and data from sensors are shared between them in real time.

The last part of the system is the bot that is going to move around working on the field.

This bot has L298N H-bridge motor drivers which are connected to the microcontroller. Microcontroller gives it ability to control the rotation and speed of motors with the help of programming as per the need. PWM can also be used to accelerate or decelerate motors while turning to any directions.

Methodology :- The project methodology is classified into two major categories, Hardware and Software which describes the respective component used for the implementation of this project.

Hardware

1) ESP8266

ESP8266 is a low-cost alternative which comprises of TCP/IP stack and a Wi-Fi microchip.

It is considerably low in price and can eventually be very inexpensive in volume. It can incorporate a minimum of 7 external devices.

It has various features like:

- **High durability :-** ESP8266 has the capability to operate continuously in various environments. Its high temperature resistance range can help it function on higher temperatures thus making it robust in nature.

- **Compactness :-**

ESP8266 has so many various different components integrated together which makes it highly compact.ESP8266EX is coordinated with a 32-bit Tensilica processor, digital peripheral interfaces, antenna switches, low noise receive amplifier, filters and power management modules.

- **Power-saving architecture :-**

ESP8266 has low power consumption architecture and its battery is designed in such a way that it can run for longer hours..

Advantages over others

- **Economic**

ESP8266 has one of the major advantage of being economic and impactful at the same time. One of the main reason for the success of **ESP8266** was being inexpensive so that the users can buy repeatedly even if they break it.

- **Flexibility**

ESP8266 has enhanced chip functionality that can incorporate various tasks. It is capable to function in various situations due to its

robust, compact and sturdy nature. We can easily load the desired program once and it will stay on **ESP8266** until the processor is completely flushed out.

2) **Sensors-DHT11** :- DHT11 is a temperature and humidity sensor. DHT11 is capable of generating digital signals .Output. Dht11 can be alliance with various microcontrollers like Arduino UNO, Arduino Nano etc. Major advantage of Dht11 is instantaneous result , low cost, high reliability and stability. It uses a power supply of 3-5V. Advantages of DHT11 over other sensor mainly includes its

- High stability
- Availability
- Fast response
- Cost effective.

3) **BOT** :- The bot is a four-wheel car which can be controlled using website interface. It has two L298N H-Bridge motor drivers which are connected to four different center shaft dc motors. The motor driver gets voltage regulation from NodeMCU and hence rotates the motors, the whole motion of bot is controlled using the motor driver.

L298N H-Bridge is used for reasons like

- Cost effective.
- Gives ability to control speed and rotation of motors.
- Features like PWM and H-Bridge circuit.

We used DC motors for following reasons

- Speed control for acceleration and deceleration are excellent.
- Design is easy to understand
- Less expensive and simple design

Software :-

1) **Thingspeak** :- ThingSpeak is an IOT analytics platform service that enable users to visualize and analyze the real time data stored in the Cloud. The users can send data to ThingSpeak from personal device and create real time visualization using the live data. It can also be used to send live updates and alerts.

The major advantage of using ThingSpeak over any other platform is that it is fast, reliable, open source, real-time, and let the user connect to IOT system without setting up servers or developing software.

2) **HTML&PHP** :- HTML is used to create basic web pages for a website. It is very simple to learn and use. One can easily create a basic static web page using Html. To make it a dynamic web page i.e. connecting the webpage to a database we need an environment and in our project the environment is provided my PHP. It connects the front end to the database.

For database we used the XAMPP database i.e. MySQL database. It is fast and convenient to use. It comes very handy for moderately sized projects.

Conclusion :- Farm automation has quickly accelerated in the field of agriculture. It provides various facilities to the farmers and makes them independent. It is a one stop solution for various tasks like temperature sensing, weather forecasting, analyzing and taking actions accordingly. This makes the job of the farmers efficient, easy and effortless. The proposed system helps in determining environmental change with a low-cost hardware and providing real time insights. The system gives user features of ploughing and monitoring the temperature and humidity for effective and effortless farming.

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