

IMPACT OF COVID-19 ON THE LIVELIHOODS OF FISHERMEN COMMUNITY IN YANAM, PUDUCHERRY: AN ANALYSIS

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Abstract:*The Global pandemic, COVID-19 has unpredictable impacts on all the sectors of the economy throughout the globe and no exception to the fishing sector. The fisheries sector plays a vital role in the economy by providing food & employment to millions of people and defining the cultural identity of many coastal communities and contributing to keep them alive. The outbreak and the resultant lockdown in India have greatly affected the livelihoods of fishing communities across India. Though the lockdown may help in arresting the spread of corona virus; but has a chronic impact on the livelihoods of vulnerable population particularly on food systems, storage and market chains, both locally and regionally. Yanam is a coastal line in which most of the people depends on fishing for their bread and butter. As a consequence of the current pandemic, thousands of fishermen lost their employment and suffered increasing inequality and poverty. On this backdrop, the present study has been undertaken to analyze the impact of COVID-19 on the Livelihoods of Fishermen community in Yanam, Puducherry.*

Keywords:*COVID -19, Fishermen Community, Livelihoods, Unemployment, Inequality and Poverty*

INTRODUCTION:

“Suitable adjustments will have to be made to provide immediate relief to the corona affected fishing communities. This should not be connected to regular payments like fishing ban period compensation”

- Prof M S Swaminathan.

Fisheries sector could be a vital sector of food and nutritional security in India. Over 9 Million people directly rely on fisheries for his or her livelihood of which 80% are small scale fishers. The sector employs over 14 million people and contributes to 1.1% of the Indian GDP. The geographical region of India covers 4 maritime states Tamil Nadu, state, Odisha and state and therefore the Union Territories of Puducherry and Andaman and Nicobar islands. Fishing is especially disburshed with traditional fishing crafts, motorized boats and little mechanized crafts.

Molecular phylogeny of the *Ficus virens* complex (Moraceae)¹

Karthikeyan Mahima, Jana Venkata Sudhakar, and Ramalingam Sathishkumar

Abstract: The closely related species present in the subgenera of *Urostigma* are challenging to classify due to the existence of overlapping morphological characteristics, which makes identification habitually problematic. It is still unresolved whether the species of the *Ficus virens* complex, which includes *F. virens*, *F. middletonii*, *F. caulocarpa*, *F. concinna*, and *F. superba*, are the same or distinct species due to the complexities in classification. To clarify the circumscription between the species and re-evaluate the taxonomical status, morphological characteristics were extensively examined; further, a phylogenetic reconstruction based on two DNA markers (ITS2 and *trnH-psbA*) in combination with morphological traits was carried out. The phylogenetic tree constructed using the combined morphology and DNA markers revealed that the five species should be demarcated as independent species. This study supports the importance of using both molecular and morphological data for efficient discrimination of species having high similarities. Further investigation into the species present in the subgenera *Urostigma* may provide additional information regarding the ancestral traits and its evolutionary history.

Key words: cluster analysis, phylogenetics, species delimitation.

Résumé : Les espèces proches qui font partie du sous-genre *Urostigma* sont difficiles à classifier en raison de caractères morphologiques chevauchants. Il demeure non-résolu si les espèces du complexe *Ficus virens*, lequel comprend *F. virens*, *F. middletonii*, *F. caulocarpa*, *F. concinna* et *F. superba*, forment une seule espèce ou des espèces distinctes en raison de la complexité de la classification. Pour éclairer cette question et pour réévaluer leur statut taxonomique, leurs caractères morphologiques ont été examinés minutieusement. De plus, un arbre phylogénétique a été produit sur la base de deux marqueurs de l'ADN (ITS2 et *trnH-psbA*) ainsi que des caractères morphologiques. L'arbre phylogénétique construit en combinant les données morphologiques et moléculaires a révélé que les cinq espèces forment effectivement des espèces distinctes. Cette étude souligne l'importance d'utiliser ces deux types de données, morphologiques et moléculaires, pour distinguer de manière efficace les espèces qui présentent une grande similitude. Des études plus approfondies des espèces au sein du sous-genre *Urostigma* pourraient apporter de plus amples informations sur les caractères ancestraux et l'histoire évolutive au sein de ce groupe.

Mots-clés : analyse de groupement, phylogénétique, délimitation des espèces.

Introduction

Ficus L. (Moraceae), commonly known as fig, constitutes one of the largest families of angiosperms with almost 750 species distributed in the tropical and subtropical regions (Chaudhary et al. 2012). In India, it is represented by 89 species and 26 infraspecific taxa and is distributed mainly in the northeast, Peninsular region, and the Andaman and Nicobar islands (Chaudhary et al. 2012; Sudhakar et al. 2017). In the family Moraceae, *Ficus* L. is quite distinct from other genera, and hence it is placed in a tribe of its own — Ficeae. Most species in this genus have similar morphological characteristics and are hard to discriminate, making species identification

difficult. DNA barcoding technique could be used for species differentiation and identification of cryptic species (Hebert et al. 2003; Ragupathy et al. 2009). The DNA sequence-based phylogenetic studies of *Ficus* showed that the taxonomic categories of *Ficus* based on morphological characters are not natural, and revealed that several parallel transitions occurred in plant growth habit and its breeding system (Herre et al. 1996; Weiblen 2000; Jouselin et al. 2003; Ronsted et al. 2005). Subsequently, a lot of work has been carried out both at the regional and global level on species of *Ficus* concerning identification, species similarities, and circumscription (Xu et al. 2011; Cruaud et al. 2012; Li et al. 2012; Chantarasuwan et al.

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Shaikh MUJAFFAR^a, Arjun Prasad TIWARI^b, Praveen Chandra DUBEY^c, Jagannath Vishwanath GADPAYALE^d and Jana Venkata SUDHAKAR^{e,*}: *Ficus johannis* subsp. *afghanistanica* (*Moraceae*) — A New Record for India

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Summary: *Ficus johannis* Boiss. subsp. *afghanistanica* (Warb.) Browicz (*Moraceae*) is reported here as a new distributional record for India from Madhya Pradesh and Maharashtra states. Detailed description, photographs and a key for allied taxa are provided to facilitate easy identification.

The genus *Ficus* L. is the largest genus in the family *Moraceae*, with about 850 species of trees, shrubs, climbers and creepers occurring in tropics and subtropics regions of the world, especially in Indo-Malaysia to Australia, Africa and America (Berg and Corner 2005). In India, it is represented by 115 taxa (91 species and 24 infraspecific taxa), of which 10 are endemic (Chaudhary et al. 2012, Sudhakar et al. 2017). While creating an inventory of the genus *Ficus* of Madhya Pradesh and Maharashtra states, the first and fourth authors collected some interesting *Ficus* specimens from Khandwa district (Vithalmandir, Khadakpura, Mirpura, Pardeshipura, Ganjbajar, Sabjimandi, Narmadanagar) and Burhanpur district (Jainabad, Shikarpura and Sanawara old wall) of Madhya Pradesh state and Bhandara district (Bhandara open areas) of Maharashtra state. After critical examination of fresh and herbarium specimens, related literature (Browicz 1982; online resources e-flora of Pakistan, Tropicos, The Plant List etc.), and personal communication

with Indian *Ficus* experts, these interesting specimens were identified as *Ficus johannis* Boiss. subsp. *afghanistanica* (Warb.) Browicz, a dioecious species belonging to the subgenus *Ficus*. This taxon is hitherto known only from Afghanistan, Iran, Tadjikistan, Turkey, Turkmenistan and Uzbekistan. Hence, the present collections form a new distributional record of this species for India. This species is presumed not native to India and have been introduced intentionally, or as an imported food-grain alien, although they may have come via migratory birds. Now it is becoming naturalised in open and rocky areas. The detailed description, field photographs, along with relevant notes and a key of allied taxa *F. carica* L. and *F. palmata* Forssk. subsp. *virgata* (Roxb.) Browicz are provided to facilitate easy identification of this species in the field.

Ficus johannis Boiss. subsp. *afghanistanica* (Warb.) Browicz in Rechinger, Fl. Iranica **153**: 11, t. 6. (1982). – *Ficus afghanistanica* Warb. in Urban & Graebn., Festschr. Aschers: 369 (1904). [Fig. 1]

Vernacular name: Afghan fig (English).

Bushy lithophilous shrubs on walls and fissures of rocks, up to 3 m tall, dioecious; aerial roots absent; latex milky white; bark reddish-brown to grayish-brown, with scattered

पूर्वोत्तर प्रभा

(विशेषज्ञों द्वारा समीक्षित अर्द्धवार्षिक शोध पत्रिका)

जनवरी-जून 2021



हिंदी विभाग
सिक्किम विश्वविद्यालय

पूर्वोत्तर प्रभा

(विशेषज्ञों द्वारा समीक्षित अर्द्धवार्षिक पत्रिका)

जनवरी-जून, 2021



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'पूर्वोत्तर प्रभा' में प्रकाशित सभी लेखों पर संपादक की सहमति हो, यह आवश्यक नहीं है। प्रकाशित सामग्री की सत्यता व मौलिकता हेतु लेखक स्वयं जिम्मेदार है। पत्रिका में प्रकाशित किसी भी लेख पर आपत्ति होने पर उसके विरुद्ध कार्यवाही केवल गंगटोक, सिक्किम न्यायालय के अधीन होगी।

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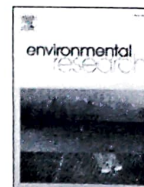
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डॉ. आरिफ जमादार





Review article

A comprehensive review of environmental fate and degradation of fipronil and its toxic metabolites

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ABSTRACT

The use of pesticides to increase crop production has become one of the inevitable components of modern agriculture. Fipronil, a phenylpyrazoles insecticide, is one of the most widely used, systemic, broad-spectrum insecticides. Owing to its unique mode of action and selective toxicity, it was once regarded as safer alternatives to more toxic and persistent organochlorine insecticides. However, with the increased use, many studies have reported the toxicity of fipronil and its metabolites in various non-target organisms during the last two decades. Currently, it is regarded as one of the most persistent and lipophilic insecticides in the market. In the environment, fipronil can undergo oxidation, reduction, hydrolysis, or photolysis to form fipronil sulfone, fipronil sulfide, fipronil amide, or fipronil desulfinyl respectively. These metabolites except fipronil amide are more or less toxic and persistent than fipronil and have been reported from diverse environmental samples. Recently many studies have focused on the degradation and removal of fipronil residues from the environment. However, a comprehensive review summarizing and combining these recent findings is lacking. In the present review, we evaluate, summarize, and combine important findings from recent degradation studies of fipronil and its metabolites. An attempt has been made to elucidate the possible mechanism and pathways of degradation of fipronil and its toxic metabolites.

1. Introduction

Fipronil [5-amino-3-cyano-1-(2, 6-dichloro 4 trifluoromethylphenyl)-4-trifluoromethyl sulfinyl pyrazole] which belongs to a new class of chemical pesticide, the phenylpyrazoles, is one of the most widely used, systemic, broad-spectrum insecticide. First registered in 1996 in the U.S. by Rhone Poulenc Ag Company (now Bayer Crop Science), it is used to control both agricultural as well as non-agricultural pests such as rice stem borer, diamondback moth, leaf folder, bollworm, aphids, locust, ticks, fleas, termites, ants, cockroaches, mosquitoes, etc. (Tingle et al., 2003).

Fipronil is a contact or stomach poison that inhibits the gamma-aminobutyric acid (GABA)-gated chloride channel leading to hyper-excitation, convulsions, paralysis, and death of insects (Gaut et al., 1998). Compare to older-generations pesticides with a similar mode of action such as lindane (γ -HCH), dieldrin, and endosulfan, fipronil showed higher selective toxicity owing to its higher binding affinity for the GABA-receptors of insects compared to those of vertebrates (Hainzl et al., 1998; Zhao et al., 2005). The unique mode of action also makes it

highly effective against many insect pests which have developed resistance to other common classical insecticides such as, pyrethroids (sodium channel blockers), organophosphates, and carbamate (cholinesterase inhibitors) (Colliot et al., 1992; Aajoud et al., 2003).

In the environment, fipronil can undergo reduction, oxidation, hydrolysis, or photolysis to form fipronil sulfide, fipronil sulfone, fipronil amide, or fipronil desulfinyl respectively [Fig. 1]. These metabolites except fipronil amide have been reported to be more or less toxic and persistent than the parent compound (Hainzl et al., 1998; Tingle et al., 2003; Weston and Lydy, 2013; Qu et al., 2016b). Residues of fipronil and its major metabolites were reported from many environmental samples including water, soil, vegetables, and animal products. Water run-off from agriculture, urban and mixed land used in several US states was found to contain varying concentration of fipronil and its metabolites (Gunasekara et al., 2007). The maximum concentration of fipronil and its four major metabolites in the municipal sewage sludge from the United States were 191.8 $\mu\text{g}/\text{kg}$ dry weight (fipronil), 149.2 $\mu\text{g}/\text{kg}$ dry weight (fipronil sulfide), 208.6 $\mu\text{g}/\text{kg}$ dry weight (fipronil sulfone), 18.7

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DISEASE AND DIET SURVEY IN NIZAM STATE OF HYDERABAD**Dr. Prasad Rao.Thota.***Assistant Professor, Department of History, Dr.S.R.K Government Arts College, Yanam, Puducherry. (U.T), PIN: 533464. India. e-mail: tprao1976@gmail.com***Abstract**

Diet survey stands for a systematic collection of factual data pertaining to the diet of a human population within a given geographical area. When nutrition was discovered as the problem and cause of the disease, Diet survey was taken up in Nizam State of Hyderabad at a cost of Rs. 23,734/- a year covering three years (1939-42), under the guidance of Dr.C.R.Naidu. The special features of the survey included institutional surveys, survey of tribal settlements and examination of school children for various deficiencies with definite recommendations. An important fact that came through a number of surveys was that malnutrition was more marked among the populations which used highly polished or milled rice, than those used home pounded or roughly milled rice. The deficiency of certain food essentials particularly vitamins and minerals was wide spread among the people, which surely lowered vital processes, impaired resistance to microbic and other pathogenic agents of disease and developed the maladies of many kinds. As a concluding part of diet survey, based on the detailed reports and analysis, special emphasis was laid on propaganda work. The Nizam Government formulated various policies and made recommendations to various departments for adoption.

Keywords: Diet Survey – Disease – Hyderabad State.

Diet and nutrition which play an important role in the prevalence of disease, had received very less attention in both colonial India and Native Princely states. Curative aspects were given more importance than the preventive measures by Medical and Public health departments. Mal-nutrition was 'discovered' as a problem of imperial importance to the Colonial Government only during the inter-war years from late 1920s.¹

Sir Robert Mc.Carrison, an IMS officer from the British government with his exposure to research nutrition sciences in Europe, was of the opinion that there were problems with the customary native diet causing poor physical development, low resistance to diseases and wide spread ill-health. The observations of the Royal Commission of Agriculture (1926) on the research of Mc.Carrison made the British Indian government nutrition conscious for the first time. This led to the recognition of Dr. Mc.Carrison's Deficiency Disorder Enquiry Unit at Coonoor in South India as a full-fledged Nutritional Research Laboratory.²

By late 1930's, Nutritional workers in India had gained certain important insights into physiological requirements of the human body under different climate and environmental conditions and reached to definite conclusions as to what constitute a good diet for humans. The principles of correct feeding were fairly understood and optimum, dietary standards based on these principles had been drawn up by League of Nations Commission and other authoritative organizations.³

During years of 'Great Depression' (1929-33), two important issues received more attention of the nutritional workers and researchers. The question of evolving balanced diet and need to understand the relationship between nutrition and infection. Various laboratory experiments were conducted in different parts of the country during 1930's, with a view to understand the above mentioned issues, formed an important stage in the evolution of Nutritional science in India.⁴

The publication of Health Bulletins, 'The Nutritional Value of Indian Foods' and the 'Planning of Satisfactory Diets', in 1938 by W.R. Aykroyd was an attempt to compose the data on various food-



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INFLUENCE OF HALL EFFECTS ON PERISTALTIC FLOW OF A CARREAU FLUID IN AN ASYMMETRIC CHANNEL

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Abstract: In this paper, the peristaltic flow of a Carreau fluid in an asymmetric channel under the long wavelength assumption is discussed in the presence of Hall. The flow is examined in a wave frame of reference moving with velocity of the wave. A regular perturbation technique is employed to solve the present problem and solutions are expanded in a power of small Weissenberg number. Expressions for the velocity, axial pressure gradient and pressure rise over a one wavelength are obtained. The effects of various emerging parameters on axial pressure gradient and pumping characteristics are discussed in detail.

Keywords: asymmetric channel; Carreau fluid; Hall effects; peristaltic flow.

2010 AMS Subject Classification: 76Z05, 76D05

1. INTRODUCTION

The mechanics of peristaltic has been examined by a number of investigators. Latham [10] discussed for the first time about peristalsis in his thesis. Later, Shapiro et al. [18] worked on very similar lines. Lew et al. [11] suggested chyme in the small intestine as a non-Newtonian fluid. Shukla et al. [19] investigated the effects of peripheral - layer viscosity on peristaltic transport of a bio-fluid in a uniform tube and used the long wave length approximation as in Shapiro et al [18]. Bohme and Friedrich [4] discussed the peristaltic flow of a viscoelastic liquid

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SLIP AND HALL EFFECTS ON THE PERISTALTIC PUMPING OF A LINEAR VISCOELASTIC FLUID THROUGH A POROUS MEDIUM IN A CHANNEL

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ABSTRACT

In this paper, we studied the effects of Hall and slip on the peristaltic flow of a Jeffrey fluid through a porous medium in a two-dimensional channel under the long wavelength approximation. Closed form solutions are obtained for axial velocity and axial pressure gradient. The effects of various emerging parameters on the axial pressure gradient and pumping characteristics are discussed with the help of graphs.

KEYWORDS: Jeffrey Fluid, Slip, Porous Medium, Hall & Peristalsis

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1. INTRODUCTION

The Jeffrey model is relatively simpler linear viscoelastic model using time derivatives instead of convected derivatives for example the Oldroyd-B model does, it represents a rheology different from the Newtonian. Hayat et al. (2006) have discussed the effect of an endoscope on the peristaltic pumping of a Jeffrey fluid. Hayat et al. (2007) have investigated the peristaltic flow a Jeffrey fluid in an axisymmetric tube. The effect of an endoscope and magnet field on the peristaltic flow involving Jeffrey fluid have discussed by Hayat et al. (2008).

In addition, flow through a porous medium has been of significant attention in recent years predominantly amid geophysical fluid dynamicists. Examples of natural porous media are rye bread, the human lung, beach sand, sand stone, limestone, wood, bile duct, gall bladder with stones and in small blood vessels. Hayat et al. (2008) have studied the peristaltic flow of a Jeffrey fluid through a porous medium in a channel under the effect of magnetic field with compliant walls. Subba Reddy and Prasnath Reddy (2010) have investigated the effect of variable viscosity on peristaltic flow of a Jeffrey fluid through a porous medium in a planar channel. Jyothi et al. (2016) have studied the hyperbolic tangent fluid flow through a porous medium in an inclined channel with peristalsis. Ranjitha and Subba Reddy (2018) have discussed the radiation effect on the peristaltic flow of a Jeffrey fluid through a porous medium in a channel.

Hayat et al. (2007) studied the Hall effects on peristaltic flow of a Maxwell fluid in a porous medium. Abo-Eldahab et al. (2010) have investigated the effects of Hall and ion-slip currents on magnetohydrodynamic peristaltic transport and couple stress fluid. Gad (2014) has studied the effects of Hall current on peristaltic transport with compliant walls. Eldabe (2015) have studied the Hall Effect on peristaltic flow of third order fluid in a porous medium with heat and mass transfer. Effect of hall and ion slip on peristaltic blood flow of Eyring Powell fluid in a non-uniform porous channel was studied by Bhatti et al. (2016). Recently SubbaNarasimhudu and Subba Reddy (2017) have investigated the Hall effects on the peristaltic pumping of a Newtonian fluid in a planar channel.

An Efficient Group Key Management based on Bilinear Pairings

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Abstract

A Group Key Management is a process or a protocol allows a set of users to establish a common secret via open networks. The common use of this established group key (also termed as conference key) is to permit users to encrypt and decrypt particular broadcast message that is meant for the total user group. So, without loss of confidentiality, a group member can collaborate with other members about information disclosure. In this paper, we propose a group key management protocol that is based on public key cryptography. Based on a notion of signature-based broadcast, we presented a generic construction of Multiple-round Asymmetric key Group key transfer protocol, which can also be used as a broadcast scheme but does not need a trusted dealer to distribute secret keys. By guaranteeing the freshness of authentication messages, the authenticity of the generator of authentication messages and the completeness of the authenticator, the improved protocol can resist various passive and active attacks. The protocol allows the participants in the group to derive a common encryption key, provide the key security and unknown key share properties. Security analysis of proposed scheme is also discussed.

Keywords: Key Management, Group Key Management, Digital Short Signatures, Pairings, Authentication, Public key Cryptography.

1. Introduction

Key management [1] is an essential cryptographic primitive upon which other security primitives are built. So, the proposed key management protocol should not only support the establishment of pairwise keys but also other keys such as cluster keys or group key. A Group key [3, 4] is a common key shared among all participants in the same group, and is mainly used for securing locally broadcast messages. A group key is a globally shared common key, used by the base station for the encryption [17] of messages that are broadcast to the whole network.

The Group Key Management scheme can be used in security group communication of revocation encryption schemes [8], group encryptions and thresh-old encryption schemes. The group key security protocol [2] should solve such problems as group key produce, group key update regularity. These group key management schemes can be divided into three basic categories: (i) centralized group key agreement protocols (CGKAP) [15], (ii) decentralized group key management protocols with relaying (DeGKMP) [12], and (iii) Distributed group key agreement.

In distributed group key transfer [7, 8], all group members are treated equally. Hence, group keys should be negotiated among all group members through Di e Hellman (DH) key exchange or based on secret sharing theory to ensure fairness.

In the CLIQUE scheme [18], group members can deliver their DH seeds orderly through insecure channels and the last member get all the DH seeds to compute the group key and then multicast the received DH seeds to other members so that all members can get the group key, thus generating $O(N^2)$

An Efficient Group Key Transfer protocol for Secure Encryption

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Abstract. Cryptography algorithms provide confidentiality, integrity and authentication of communication channels. These algorithms and protocols are based on sophisticated mathematics such as computational and algorithmic algebraic geometry, coding theory, and generic algorithms for finite abelian groups. For secure encryption, establishing or transferring a shared key between the parties is an interesting challenge. Key management is an essential cryptographic primitive upon which other security primitives are built.

In this paper, we present a generic construction of asymmetric key Group key transfer protocol using one way function and coding theory technique. By guaranteeing the freshness of authentication messages, the authenticity of the generator of authentication messages and the completeness of the authenticator, the improved protocol can resist various passive and active attacks. The protocol allows the participants in the group to derive a common encryption key, provide the key security and unknown key share properties. Security analysis of proposed scheme is also discussed.

1. Introduction

Key management [1] is an essential cryptographic primitive upon which other security primitives are built. So, the proposed key management protocol should not only support the establishment of pairwise keys but also other keys such as cluster keys or group key. A Group key [3,4] is a common key shared among all participants in the same group, and is mainly used for securing locally broadcast messages. A group key is a globally shared common key, used by the base station for the encryption [17] of messages that are broadcast to the whole network. The Group Key Management scheme can be used in security group communication of revocation encryption schemes [8], group encryptions and threshold encryption schemes. The group key security protocol [2] should solve such problems as group key produce, group key update regularity. These group key management schemes can be divided into three basic categories: (i) centralized group key agreement protocols (CGKAP)[15], (ii) decentralized group key management protocols with relaying (DeGKMP) [12], and (iii) Distributed group key agreement.



An Ecocritical Study of Manju Kapur's The Immigrant and Kamala Markandaya's The Nowhere Man

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Abstract:

Ecocriticism according to analogy is based on the correlation between literature and environment or how human behaviour directly gets affected in relation with the environment which is captured in the literature. This paper basically reflects the impact of Ecocriticism in literature. Environment comprises of not only the surroundings and weather conditions but also housing, family, friends, entertainment, law and many more. The focus of this paper is on two selected novels The Immigrant and The Nowhere Man written by two different writers of two different generations and perspectives. Kamala Markandaya and Manju Kapur though both are known for their feministic aspects of writing but simultaneously found with lot many glimpses of ecocriticism nearly in every piece of their writings. Kamala Markandaya has written 11 novels in total where as Manju Kapur 6 novels, where we find lots of ecocriticism based on environment like famine leading to hunger, death and breakage in the relations, Industrialization and urbanization occupying the agricultural lands and making the farmers into daily waged labourers ,education and modernization effecting the values of life.

Just like ecofeminism, ecological imperialism and eco-poetics, ecocriticism also encourages others to think deeply about the aesthetic and ethical dilemmas caused by the environmental crisis and about how language and literature transmit values with philosophical ecological implications.

In the beginning, this paper gives the summary of the two novels and the themes represented have been identified with special reference to disbandment and transculturation. I am exploring the effects of immigration basically on the Indian family as well as how the family utilizes, exploits and relies on the land that they are inhabitants of. Immigrants have strong sense of home land. Their concept of home comprises of two places - one they have left behind and the other is the one where they have migrated to and currently living in. Factual meaning of the term 'Indianness' is the feeling of an Indian in both spiritually, culturally and socially. The novels deal with the story of two immigrants from India, Nina and Ananda, who have settled in Canada in 'The Immigrant' and Srinivas and Vasantha who settled in London in The Nowhere Man. The stories gradually probe deep to discuss the wide range of other issues like quest for identity, adaptation in new land , acculturation and life of an immigrant with his expectations etc., This paper is an effort to study the differences between Eastern and western culture and environment depicted by both the novelists through their narrative novelist attempts.

KEYWORDS: Ecocriticism, immigrant, environment, culture, Identity, family

Introduction:

The inception of ecocriticism in literature has taken place in 1980, since then its movement spread like a wild fire. The ecocritical perspectives as foreseen in some select world literature



Identification of enzyme(s) capable of degrading endosulfan and endosulfan sulfate using *in silico* techniques

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ABSTRACT

Endosulfan is one of the most widely used organochlorine cyclodiene insecticides. Microbial oxidation of endosulfan forms endosulfan sulfate, which is more or less toxic and persistent as endosulfan. Due to lack of specificity and efficiency of microbial bioremediation technique in the field conditions, enzymatic bioremediation is receiving huge attention to clean-up the environment. In the present study, X-ray crystal structures of enzymes from Brookhaven Protein Data Bank were screened for their potential to degrade endosulfan and endosulfan sulfate using molecular docking and molecular dynamics simulation techniques. A phenol hydroxylase, 1PN0 from *Trichosporon cutaneum* was found to have the potential to degrade both α -endosulfan and endosulfan sulfate while a bacterial CotA laccase, 3ZDW from *Bacillus subtilis* has the potential to degrade α -endosulfan. The *in silico* result correlate with *in vitro* degradation study using two different strains of *Trichosporon cutaneum*. *In vitro* degradation study found that the fungal strain was capable of degrading 60.36% α -endosulfan, 70.73% β -endosulfan, and 52.08% endosulfan sulfate. The presence of phenol hydroxylase inhibitor in the sulfur-free medium with endosulfan and endosulfan sulfate as sole sulfur source inhibits the growth of both the fungal strains. Such *in silico* techniques can provide an easy and reliable way to speed up the development of bioremediation processes through rapid identification of potential enzymes and microbes to counter the ever-increasing number of toxic compounds in the environment.

1. Introduction

Endosulfan is a wide spectrum organochlorine cyclodiene insecticide. Technically, it is a mixture of two isomers α and β in the ratio of 7:3. The presence of a relatively reactive cyclic sulfite diester group makes endosulfan less persistent as compared to other organochlorine pesticides [1]. With various bans and restrictions imposed on other highly persistent organochlorine pesticides like dichlorodiphenyltrichloroethane (DDT) and hexachlorocyclohexane (HCH), the use of endosulfan increased tremendously during the last few decades. Because of its acute toxicity and behavior for bioaccumulation, a global ban on the manufacture and use of endosulfan was negotiated under the Stockholm Convention in April 2011. However, it is still used in China, Pakistan and a few other countries [2].

Bioremediation of endosulfan is receiving enormous attention as an alternative to other remediation methods such as incineration and landfill [3]. Many microorganisms have been isolated from different niche which can degrade endosulfan and endosulfan sulfate [4–6]. These microbes can use endosulfan either as carbon or sulfur source or

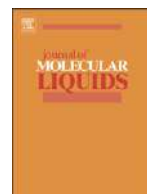
both [3]. Endosulfan can undergo oxidation or hydrolysis reactions to form endosulfan sulfate or endosulfan diol, respectively. Microbial enzymes are solely responsible for the oxidation of endosulfan to endosulfan sulfate, while endosulfan diol can be formed due to alkaline hydrolysis of endosulfan or endosulfan sulfate [7]. The rate of hydrolysis of endosulfan sulfate is considerably higher than the rate of hydrolysis of endosulfan [7]. Endosulfan sulfate can be further oxidized to endosulfan monoalcohol through endosulfan hemisulfate (Fig. 1) [8]. The oxidation of endosulfan to endosulfan sulfate and hydrolysis of endosulfan diol are the rate-limiting steps in the biodegradation of endosulfan in aerobic and anaerobic conditions, respectively [7].

Enzymatic bioremediation of endosulfan is in its nascent stage. Sutherland et al. (2002) reported an endosulfan degrading flavin-dependent monooxygenase, Esd, which is capable of degrading β -endosulfan into endosulfan monoaldehyde and endosulfan hydroxyether from *Mycobacterium* sp. [9]. Another flavin-dependent monooxygenase, Ese, capable of degrading both endosulfan isomers and endosulfan sulfate was identified from *Arthrobacter* sp. by Weir et al. (2006) [8]. Both these enzymes are yet to be isolated and characterized for further

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Development and stability enhancement of neem oil based microemulsion formulation using botanical synergist

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ABSTRACT

The present study investigated the stability of neem oil based microemulsion (a water based formulation) by switching synthetic synergist with botanicals. Aqueous extract of *Prosopis Juliflora* was used as a botanical synergist. Microemulsion with different concentrations of neem oil i.e. 2%, 4%, 6%, 8%, 10% and 12% (w/w) were developed using a blend of ionic and anionic surfactant and 2-Butanol as a co-surfactant. Stability study has been done at first day and after 14 days of preparation at 54 °C by using HPLC, ATR-FTIR and DLS. The phase diagram study was also done to observe the feasibility of the prepared formulation. The concentration of azadirachtin in microemulsion samples with and without botanical synergist range 95% and 40% of the initial concentration respectively. Particle size of all the microemulsion samples were range 14.47 nm–32.36 nm with PI (polydispersity index) value 0.19 to 0.74. This signifies that the formulated microemulsions are in one phase with homogeneous distribution of the molecules. Bioassay study with *Spodoptera Litura* also showed decrease in LD₅₀ value from 40% to 10%. Thus the botanical synergist used in this study stabilize the azadirachtin content of neem oil in water based formulation.

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1. Introduction

From the ancient times neem products have been used in agriculture to protect the crops from insect pest. They act as powerful Insect Growth Regulators (IGR) and also aid in monitoring several insect pests. Neem products are used as an insecticide, pesticide, pest fumigant, fertilizer, manure, compost, urea coating agent and soil conditioner [1]. Of all the neem products, neem seed oil is most popular and best known for its insecticidal and medicinal properties attributed its use in agriculture against various insect pests [2]. It comprises at least 100 biologically active compounds, among them, triterpenes known as limonoids are the

major constituents, the most important being azadirachtin, which seems to cause 90% of the effect on most pests [2].

Now a day's various formulations of neem oil are accessible commercially in the market. Among these formulations, microemulsions and nanoemulsions of neem oil are commonly in use. These are known as next generation formulations and effective against a wide range of insects [3]. Microemulsions are thermodynamically stable, transparent dispersion, composed of a homogenous mixture of water, oil, surfactant and medium chain alcohol such as butanol, pentanol, heptanol etc. as a co-surfactant. They are optically isotropic and having a fine microstructure with their droplet size generally range between 5 and 50 nm. They have very low interfacial tension at the water-oil interface. The mixture of oil, water and surfactants form a wide variety of structures and phases depending upon the proportions of each component [4].

But there is a problem with the stability of the azadirachtin present in the neem oil as an active ingredient. In, o/w microemulsions, amount of water is higher which leads to degrade the azadirachtin content of neem oil. Instability of azadirachtin in water is a major shortcoming in preparation of neem oil microemulsion formulation [5]. Lots of work

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**ROLE OF BANKS IN THE PROGRESS OF SELF HELP GROUPS IN INDIA
A COMPARITIVE STUDY ON AGENCIES**

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Abstract: Banks play an important role in the financial inclusion of Self Help Groups in India. Commercial Banks, Regional Rural Banks, Co-Operative Banks play the major part in the progress of SHGs. Banks maintain the savings accounts of SHGs, they extend loans to needs groups and encourage the SHGs to take up their livelihood activities. This study makes a comparison between the banks that mobilize savings, extend loans, loan outstanding of SHGs and also studies the Non Performing Assets of banks. Both agency wise comparison and region wise comparison of NPA is performed in this paper. NPA is formed when the financial institutions are burdened with higher losses due to nonpayment of principal and interest amount of loan availed by the members in SHGs. This indeed is considered as a bad debt to the banks.

Keywords: Savings mobilization, Loan Disbursed, Loan outstanding, Non Performing Assets, Regional Rural Banks (RRBs), Co-Operative Banks, Commercial Banks.

INTRODUCTION

A banking revolution occurred in the country during the post-nationalization era. The commercial banks, especially public sector banks, have drastically changed from their traditional money dealing business to innovative banking and subserved their operations to the needs of nation-building activities and socio-economic upliftment of the Indian masses. It is rightly said that Indian banking has changed from class-banking to mass-banking or social banking. The private sector commercial banks were urban-oriented in their growth. Rural areas were starved of banking facilities. To improve this situation, public sector commercial banks undertook a programme of massive expansion of bank branches in the rural, under-banked and unbanked areas, which aimed at ensuring balanced regional development of the banking sector in the country.

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A STUDY ON QUALITY LIFE OF MEMBERS IN SHGs AT THALLAREVU MANDAL OF EAST GODAWARI DISTRICT

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Abstract: *In this study an attempt is made to know about the quality of life in members of SHGs at Thallarevu mandal of East Godawari District. The members of SHGs in East Godawari Districts are hundred percent with women folks. SHGs is the basic platform for rural women folks to empower themselves and it happens to be one of the source to build self confidence, self reliance and self esteem in them. SHGs also helped the rural women to improve their quality of life by learning form the various awareness programmes, schemes and training imparted by the Government. Mainly the rural women are aware about the role of education in children for improving the standard of living.*

Keywords: *Self Help Groups (SHGs), Quality of Life, Social - Economic Empowerment, Financial Empowerment, Political Empowerment.*

INTRODUCTION

The prime origin of SHG was from Garmin Bank of Bangladesh. Dr. Mohammed Yunus, Professor of Economics in Chittagong University at Bangladesh was an initiator of an action research project 'Gramin Bank', to provide micro-finance to rural women in 1975. It has been established as the most powerful instrument to tackle poverty. Self-help Groups (SHGs) are playing a major role in removing poverty in the rural India today. The group-based model of self-help is widely practiced for rural development, poverty alleviation and empowerment of women. Self-help as a strategy for social development places emphasis on self-reliance, human agency and action. It aims to mobilize people, to give them voice and build people's organizations that will overcome barriers to participation and empowerment. Self-help groups are seen as instruments for goals including empowering women, developing leadership abilities among poor people, increasing school enrolments, and improving nutrition and the use of birth control.

SHGs are small homogenous groups with a minimum of 10 to 20 members from similar socio-economic background join together and form a group at the village level. The SHGs would conduct regular meetings either weekly or fortnightly or monthly on a particular day, time and place. The members save in the SHGs either weekly or fortnightly or monthly basis and disburse the same as loan amount to the needy members in

AN EVALUATION OF NON-PERFORMING ASSETS OF SELF HELP GROUPS IN INDIA-A COMPARISON UNDER REGION-WISE

V. Sridevi** Dr. Yoginder Singh *

Abstract: Self Help Groups play a vital role in lives of rural poor folks. SHG-BLP is an effective intervention in economic up-liftment and financial inclusion for the rural folks. It was initially conceived for increasing the services of banking sector for the poor has since developed to a programme of livelihoods and poverty alleviation. The members in SHGs are able to get sufficient loans from Commercial Banks, Regional Rural Banks and Co-Operative Banks. This paper explains about the level of NPAs of SHGs both through region-wise and agency-wise. When the loans borrowed by the members are not promptly paid off then NPA happens to occur for banks. A comparative analysis of NPAs in all six regions namely Northern Region, North Eastern region, Eastern Region, Western Region, Central Region, has been studied in this paper.

Keywords: Non-Performing Assets, Credit Disbursement, Self Help Groups, Bank Linkage Programme, Savings Outstanding, Loan Outstanding.

INTRODUCTION: SHG is one way of empowering rural women folks to get access to social, financial and economic development. To achieve this, a multi-model approach has been adopted namely the SHG - Bank Linkage Programme (BLP) helped extensively to empower the poor, especially rural women, through providing savings and credit disbursement from banks. The training imparted from the programmes induced savings and credit encouraged setting up of tiny micro enterprises and consequently generated employment. Pioneered by Prof. Muhammad Yunus, Grameen Bank, the successful model in Bangladesh, was adapted in India for poverty alleviation, eradication of unemployment and empowerment of women. The government took the initiative of spreading such powerful instruments through promotion of SHGs, especially among underprivileged women. SHG movement was successful by the decision taken by NABARD to promote SHGs on a large scale. In 1993, the Reserve Bank of India (RBI) facilitated banking services through the opening of SHG savings accounts with the banks, interlinking banks and SHGs.

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जनवरी-जून 2019

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हिन्दी अनुवादक

संरक्षक एवं प्रकाशक
सचिव

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मुद्रक

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प्रकाशित रचनाओं में अभिव्यक्त विचार लेखकों के स्वयं के हैं,
उनसे संपादक मण्डल का सहमत होना आवश्यक नहीं है।

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Synthesis of Sulfonated Dihydrofuroprazoles Derivatives as Antimicrobial Active Agents

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A series of sulfonyl dihydrofuroprazole derivatives was prepared from one pot multi component condensation of sulfonated β -keto ester, aromatic aldehyde, hydrazine, pyridinium ylide in presence of piperidine catalyst under ethanol solvent conditions and subsequent oxidation of SPh group with MCPBA. All the synthesized compounds were characterized by analytical and spectral techniques and screened *in vitro* for antimicrobial activity. The activity data revealed that most of the compounds exhibited good to significant activities. Compounds **6b**, **6l**, **6j**, **6k**, **6m**, **6n** exhibited good and broad spectrum activity towards all the tested bacterial strains.

Keywords: Sulfonated dihydrofuroprazole, Phenylthio β -keto ester, Blaise reaction, Antimicrobial activity.

INTRODUCTION

Sulfones are important class of organo sulfur compounds, whose chemistry has been explored due to their wide range of applications in chemistry and pharmacy. Sulfone group is a potential unit for different therapeutic targets in medicinal chemistry. Sulfoxide bearing heterocycles were used to treat bacterial and some fungal infections. These are effectively killed the bacteria and fungi by interfering with metabolic reactions [1]. These are widely used as antimicrobial agents, antidiabetic agents, diuretics, anticonvulsants, antiretroviral and Hepatitis-C antiviral agents. Several researches revealed that the broad spectrum antimicrobial activity of sulfone containing heterocycles entities [2-10] Recently, Kudruavtsev *et al.* [11] reported that the sulfone bearing pyrrolidine derivatives inhibits *Staphylococcus aureus* sortase SrtA isoform, irreversibly by modification of enzyme cys 184.

In accordance with the increasing need to develop new and simple methods to prepare this biologically active sulfoxide bearing heterocyclic compounds [12-17]. Since few years onwards, our laboratory actively engaged with synthesis of different biologically active nitrogen and oxygen heterocyclic molecules by employing green chemical multicomponent approaches [18-24]. In the continuation of these efforts recently our group has developed novel methodology for synthesis of

dihydrofuroprazoles from one pot multicomponent condensation of β -ketoester, aromatic aldehyde, hydrazine, pyridinium ylide and NEt_3 as a catalyst [25]. This reaction inspired us to synthesize SO_2 group containing dihydrofuroprazoles by using sulfur bearing β -keto ester through Blaise approach, in order to explore their antimicrobial activity.

EXPERIMENTAL

The progression of all the reactions was monitored by TLC using a solution of hexanes (60-80 °C boiling mixture) and ethyl acetate as eluent. 1H NMR spectra (400 MHz) and ^{13}C NMR (100 MHz) and DEPT-135 spectra were recorded for ($CDCl_3$ and $CDCl_3 + CCl_4$; 1:1) solutions on a Bruker-400 spectrometer with tetramethylsilane (TMS) as internal standard; J values are in Hz. Number of hydrogen's attached to each carbon was determined from DEPT spectra and are given next to the corresponding ^{13}C NMR spectral data. IR spectra were recorded as KBr pellets on a Nicolet-6700 spectrometer. Melting points were recorded using open-ended capillary tubes on VEEGO VMP-DS instrument. High resolution mass spectra were recorded on a Waters Q-TOF micro mass spectrometer using electron spray ionization mode. Organic solvents were distilled and dried before use.

General procedure for synthesis of (4*R*,5*R*)-ethyl 4-phenyl-3-(2-(phenylthio)ethyl)-4,5-dihydro-1*H*-furo[2,3-

SHORT COMMUNICATION

Extended distribution of *Ficus costata* Aiton (Moraceae) in Western Ghats, India

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Ficus costata Aiton, hitherto known only from Western Ghats of Kerala and Karnataka, and Nicobar Islands is recorded from Goa thus extending its distributional range. A detailed description, field photographs, anatomy and SEM images of cystoliths and distribution are provided.

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Keywords:

Extended Distribution, Goa, *Ficus costata*, Cystoliths and SEM images

1 Introduction

Ficus L. (Moraceae) commonly known as 'Fig' constitutes one of the largest genera of angiosperms with almost 850 species distributed globally in the tropical and warm regions (Mabberley, 2017). Recently, Chaudhary *et al* (2012) recorded 89 species and 26 infraspecific taxa of *Ficus* from the political geography of India. *Ficus* is considered one of the most diversified genera due to its different type of lifeforms, i.e. free-standing tree, epiphytes, semi-epiphytes, rheophytes and lithophytes. They can be deciduous and evergreen trees, shrubs, herbs, climbers, stranglers and creepers (Berg & Corner 2005).

During the plant exploration in South Goa, the first author collected some interesting *Ficus* specimens. After critical examination of fresh, and herbarium specimens housed in BSI, Pune and perusal of literature (Sashidharan and Augustine, 1999; Sudhakar and Murthy, 2012), these interesting specimens were identified as *Ficus costata* Aiton, a monoecious species belonging to the subgenus *Urostigma*. This species was hitherto known only from Western Ghats of Kerala and Karnataka, and Nicobar Islands. Therefore, the present collection confirms its extended distribution to Goa and also forms a new distributional record to this state.

Field photographs, anatomy and SEM images of cystoliths are provided for the first time along with the detailed description.

2 Materials and Methods

The plant specimens were collected from adjacent to the Cotigao Wildlife Sanctuary, Goa on the way to Nadke and Kuske. Further, the samples were processed for the herbarium following the technique of Jain & Rao (1977) and deposited at Department of Botany, Goa University (GU). Photos of the fruiting twigs and figs were captured with Canon 700D camera. Microphotographs of the internal structures of the figs were taken using stereomicroscope (Leica WILD M3Z). Hand-sectioning of the leaves was carried out for the anatomical study and cystolith images were captured using Nikon Eclipse E200 microscope. To study the micromorphology of cystoliths, SEM images were taken using ZEISS scanning electron microscope.

Taxonomy and Distribution

Ficus costata Aiton Hort. Kew 3: 452. 1789; Corner, Gard. Bull. Singapore 17: 379. 1960; 21 (1): 11. 1965 & in Dassan. & Fosberg, Rev. Handb. Fl. Ceylon 3: 246. 1981; Sasidh. & Augustine, Rheedeia 9 (1): 77. 1999; Kameswara Rao *et al.*, Red List of Thr. Pl.: 65. 2003; Sasidh., Biodiv. Doc. Kerala 6. Fl. Pl.: 439. 2004; Chaudhary *et al.*, Taiwania 57 (2): 211. 2012; Sudhakar & G.V.S. Murthy, Indian J. Forestry 35 (3): 346. 2012; T.S. Nayar *et al.*, Fl. Pl. of the Western Ghats: 654. 2014 (Figure 1).

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Taxonomic delimitation of endemic *Ficus amplocarpa* and *Ficus dalhousiae* Complexes (Moraceae) by DNA barcoding

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Abstract

Ficus L. species are extensively diversified in India representing North-eastern states, peninsular region and Andaman and Nicobar Islands among which ten species are endemic. Thus closely related species confuses taxonomists and evolutionary researchers. Our study aims to distinguish the highly endangered closely allied species of *Ficus* genus with persistent variation. The first study complex includes *Ficus dalhousiae* and *Ficus anamalayana* and the second complex includes *Ficus amplocarpa*, *Ficus guttata* and *Ficus laevis*. The species in each complex groups are hard to distinguish because of their highly similar morphological characters. To resolve the taxonomical disputes, the nuclear loci ITS2 and chloroplast loci *trnH-psbA* were used to reconstruct the phylogenetic relationship to understand the species boundaries. In our results, intra-specific divergence is not found in the two markers tested however, the total inter-specific divergence between *F. dalhousiae* and *F. anamalayana* is found to be 6.5% and in the case of *F. amplocarpa* and *F. guttata* is to be 8.5%. The highest divergence is observed in *trnH-psbA* (0.991 ± 0.713) followed by ITS2 (0.149 ± 0.064). Bayesian analysis showed a clear segregation between *F. amplocarpa* and *F. guttata* suggesting that they could be independent species not a variety of *F. laevis*. Similarly, bayesian analysis of *F. dalhousiae* and *F. anamalayana* results support that they can be treated as different species. Thereby, our study suggests that species within taxonomically complex group can be resolved by DNA barcoding.

Keywords: Bayesian analysis, Morphology, Species Delimitation, Taxonomically Complex Groups

Introduction

In the family Moraceae, *Ficus* L. genus is moderately distinct from other groups due to its peculiar type of inflorescence (syconium), hence it is placed in a separate tribe Ficeae. The genus *Ficus* is included in Taxonomically Complex Groups (TCGs), because of its significant variation at an intra-specific level (Saddoud *et al.* 2005, Guasmi *et al.* 2006). The current taxonomic position of few *Ficus* species has raised several questions of its authenticity (Olivar *et al.* 2014; Anand *et al.* 2016). Generally, taxonomical parameters like leaves, stipules, bracts, and figs (fruits) were frequently used for the identification of *Ficus* species. However, these morphological traits are highly susceptible to environmental changes, thus creating difficulty in identification and taxonomical classification.

Moreover, some species of *Ficus* showed similar phenotypic characteristics, which makes it difficult to verify the boundaries of the closely related species. In these TCGs, there might be a chance of occurrence of gene duplication and ploidy (Rieseberg *et al.* 2006). The morphologically related species of *Ficus* have been reported as synonyms which reduced their status to variety level (Olivar *et al.* 2014; Anand *et al.* 2016). Further some species are misidentified though they are distinct in several morphological and anatomical characters (Rani, 1985). Hence, these species are to be grouped as TCGs, and correct documentation using key or molecular tools for identifying all the closely allied species is in need of hour.

The classification status and genetic correlation of the selected endemic *Ficus* species—*F. dalhousiae* (Miq.) Miq. and *F. anamalayana* J.V. Sudhakar & G.V.S. Murthy named as *F. dalhousiae* complex, and *F. amplocarpa* Govind. & Masil., *F. guttata* (Wight) Wight ex. King and *F. laevis* Blume named as *F. amplocarpa* complex, based on Sudhakar & Murthy (2015, 2016). Hence, the present study aimed to re-examine the taxonomic identity of *F. dalhousiae* complex and *F. amplocarpa* complex through the comparison of chloroplast and nuclear DNA markers by phylogenetic analysis.



Impact of heavy metal contamination and seasonal variations on enzyme's activity of Yamuna river soil in Delhi and NCR

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Abstract

Yamuna river is one of the most important rivers of India and is highly polluted. The river water and the adjacent soil are contaminated with various pollutants including heavy metals. Soil enzymes play important role in various bio-geochemical cycles and help in maintaining nutrient availability of soil. They are very sensitive toward changing environment and therefore act as a key indicator of soil health. In the present study, effects of seasonal variations and heavy metals contamination in Yamuna river water were observed on physicochemical properties and enzyme activities of soil. Soil samples were collected from ten different locations, along the course of the Yamuna river in Delhi–NCR, in three different seasons, i.e., summer, rainy and winter. These sampling sites were divided into three segments, up, middle and lower streams. The concentrations of heavy metals were found to be higher than their safe limit at all the ten sampling points. The total organic carbon content and soil respiration was significantly higher in lower stream. Dehydrogenase enzyme activity was higher in winter season, while urease and arginine deaminase enzyme activity was higher in summer season. Dehydrogenase, arginine deaminase and nitrate reductase enzyme activities were higher in lower streams, while urease enzyme shows maximum activity in the up stream. Thus, we conclude that the continuous application of Yamuna water for irrigation may degrade the soil quality.

Keywords Yamuna river · Municipal waste · Heavy metal contamination · Soil enzymes activities · Seasonal variation

Introduction

Yamuna River plays an important role in day to day life of many people living along its bank and nearby areas. With the rapid increase in population and industrial revolution during the last few decades, it became one of the most polluted rivers in the world. Industrial effluents and household wastes through various major and minor drains are mainly responsible for its current state. In Delhi alone, there are 22

drains that submerge in Yamuna River (Dhillon et al. 2013). Pesticides leaching from agricultural soil and heavy metals from industrial and household wastes are often found in alarming concentration in the Yamuna River. Though few heavy metals act as a cofactor for various enzymes, many are toxic in nature, even at very low concentration (Singh et al. 2011). Since most of the agriculture practices in and around Delhi use Yamuna water for irrigation purpose, there exists a certain risk of these toxic chemicals entering our food chain and causing serious health problems.

Enzymes are vital components of soil, responsible for maintaining soil health (Datt and Singh 2019). Deterioration of soil, and thereby soil health, is one of the major concerns for human, animals and plant health because air and water consumed by them can be adversely affected by contaminated soil (Singer and Ewing 2000). Microorganisms (living or dead), plants roots and residues, and animals are the main source of soil enzymes. About 40–60% of soil enzyme activity comes from enzymes, which are no longer associated with viable cells. So, enzyme activity does not necessarily correlate with soil microbial biomass. In fact, it is the cumulative effect of long-term microbial activity

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Section : **Special Article**

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A Shift from economic deprivation to cultural distinctness**

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A Collaborative IOT based Agriculture Marketing Model

Vedavathi Katneni, K. SuryaPrakash

Abstract: Agriculture Marketing in India is currently highly influenced with modern information technology. Latest GPS and GIS system based information extraction mechanisms providing high scaled details in realtime environments. In this paper a novel model constructed based on IOT enabled services to support modern Agriculture marketing feasible to farmer. The primary market dynamics are highlighted to show their impact on agriculture marketing system. The Collaborative model suggested in this work not only supports farmer in marketing their crops with best economy but also helps analysts to study the marketing trends and their various factors using knowledge engineering mechanisms. This model behaves in a highly farmer suggestive mode. The collaboration with international marketing is one of the major goals of proposed model.

Keywords: Internet of Things, Cloud Computing, Data Mining, Agriculture Marketing, Sensors.

I. INTRODUCTION

Agriculture is the largest industry on which India economic growth highly relied [4]. Major activities like farming, cultivation, crop management, pest management and marketing are the key functions of agriculture and allied industries [8]. The IOT technology application in agriculture marketing improves the connectivity of market entities with physical entities globally with smart Service-Oriented-Architectures [2]. Farmers are allowed to get awareness of international marketing trends by the cloud enabled services also economic improvement noticed with mobile computing facilities [3]. Big Data Analytics domain facilitated analysts, economists, organizations and government to perform large scale data engineering received from sensors, social media, GIS/GPRS systems and Cloud servers [5][9]. The integration of electronic sensors, radio frequency Identifiers (RFID), Scanning Systems, Drones and Global Positioning Systems improved drastically the performance of Geographical/Social/environmental survey with greater data acquisition rate maintaining high accuracy. The modern agriculture marketing integrated with IOT entities improving the Supply Chain Operations more dynamically [10][5]. The IOT gateways are turning more robust to resist security breaches and supporting agriculture safe marketing by encrypting farmer's credentials or assets

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[10]. Precision Agriculture is becoming a new generation locality based smart IOT technology assisted agriculture management widely accepted in many foreign countries gaining high interest of research in India [12]. The marketing statistics are now analyzing by knowledge learners like Neural Networks, Genetic Algorithms, Fuzzy Logic, Naive Bayes classifiers, PCA and many more to estimate future trends coining the prosperity of farmers [11].

II. RELATED WORK

Many researchers performed analysis and experiments to identify the improvements in IOT based agriculture and marketing techniques. They proposed many models to support agriculture domain productivity enhancement.

D.N. Chethan et. al., (2016) described a new approach to support farmers using farm cloud and Mobile-App module. Privacy preserving Data Mining based advanced farming architecture improves production and controls cost.

Dipali Kadam et. al., (2015) implemented an IOT supported Agro-Cloud model with sensor kit module integration. Big data analysis service provided with this model efficiently handles soil analysis, crop production analysis and fertilizer analysis.

K. Ravindranath et. al., (2019) proposed a three tier based smart agriculture model, which effectively performs automatic irrigation activities with real-time electronic device interfacing.

D.Rajesh et. al., (2011) performed cluster analysis, pattern analysis, classification and association mining techniques over agriculture spatial data to enhance the precision of agriculture.

Ashan Abdullah et. al., (2018) performed research on predicting cultivable regions over territories using GIS tools like ArcGIS, QGIS and SPOT (Spatial Prediction and Overlay Tool).

S.Bhuvana et. al., (2016) proposed IOT infrastructure interlaced with spatial data mining techniques to identify the farming influencing factors to assist agriculture productivity.

Mythili. R et. al., (2018) experimented with Arduino processor to develop monitoring systems collaborative with IOT entities. These systems increased the automation and accuracy of agriculture activities like crop monitoring, weather monitoring and product chain monitoring.

III. MARKETING DYNAMICS

It is necessary to understand about influencing factors that affect the agriculture marketing.



स्वाधीन भारत के दो दशक पहले : हिंदी साहित्य में मोहभंग

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शोध-सारांश:

प्रस्तुत लेख भारतीय स्वाधीनता के शुरुआती बीस वर्षों के दरम्यान लोकतान्त्रिक मूल्यों की गिरावट को हिंदी साहित्य में अभिव्यक्ति किस रूप में दर्ज हुई, उसी को जानने का प्रयास करता है। दरअसल भारत की स्वाधीनता के पहले दो दशक का हिंदी साहित्य लोकतंत्र के लगातार छीजते जाने और संकट में पड़ते जाने का साहित्य है। उस दौर में हर तरफ़ लोगों के सपनों, आशाओं और आकांक्षाओं के टूटने और बिखरने की अनुगूँज सुनाई देती थी। जहाँ ईमानदारी, सच्चाई, भाईचारा, अहिंसा, आज़ादी इत्यादि सब अपना अर्थ खो चुके थे। यह वह समय था जब 'सहानुभूति और प्यार के नाम पर एक आदमी दूसरे को, अँधेरे में ले जाता और उसकी पीठ में छुरा मार देता है'।

बीज-शब्द:

मोहभंग, हिंदी, नई कविता, लोकतंत्र, राजनीति इत्यादि

मोहभंग एक ऐसी स्थिति है जो स्वतंत्र भारत की राजनीति विशेष तौर पर नेहरूवादी सामाजिक-आर्थिक परियोजनाओं की विफलता से पैदा हुई, परन्तु यह अचानक से आयी स्थिति नहीं थी, बल्कि स्वाधीनता के बाद से ही इस स्थिति के उत्पन्न होने के अंकुर फूटने लगे थे। इतिहास की अशांत, पेचीदा और निर्णायक घटनाओं से गुजरते हुए 1947 में आज़ादी मिलने के साथ हमारे स्वाधीन भारत की रचना हुई और इस रचना में माना गया कि अंग्रेजी राज के खिलाफ भारतीय जनता के स्वाधीनता संग्राम के नेतृत्व का श्रेय भारतीय राष्ट्रीय कांग्रेस है। काफी हद तक बात सही है लेकिन कांग्रेस के वर्गीय चरित्र की अधिक चर्चा नहीं की जाती है। सन 1947 पहले के तमाम आंदोलनों में कई क्रांतिकारी शक्तियों का योगदान था। अपने जातिवादी और सांप्रदायिक भेद-भाव को भुलाकर जनता ने एकजुटता का परिचय दिया था। वह अपने आप में बेमिसाल है। बड़े उत्साह और मनोयोग के साथ देश का संविधान निर्मित हुआ। इसके अंतर्गत भारत की संसदीय प्रणाली के तहत गणतंत्र प्रतिष्ठित हुआ। पहले आम चुनाव के साथ प्रत्येक राज्य में विधान सभाओं के साथ केंद्र में संसद अस्तित्व में आई। अपने चुने हुए प्रतिनिधियों से देश की आम जनता में खुशहाली की उम्मीदें मजबूत हुईं। जमींदारी उन्मूलन के जरिये खेतों पर काबिज़ काश्तकारों को जमीन दी गई। संविधान की भूमिका में प्रस्तावित राज्य के नीति निर्देशक तत्वों के तहत बहुत प्रदेशों में ग्राम पंचायत व्यवस्था कायम हुई। इससे एक आशा और विश्वास का वातावरण समूचे देश में व्याप्त हुआ।

प्रधानमंत्री जवाहरलाल के नेतृत्व में अंतरराष्ट्रीय स्तर पर देश की एक नयी छवि बनी। बटुंग कांफ्रेंस, कोलंबो प्लान, सहअस्तित्व, पंचशील, भारत-चीन मैत्री सम्बन्ध, रूस के साथ सुरक्षा-समझौता और आर्थिक सम्बन्ध, गुटनिरपेक्षता की नीति के माध्यम से पं. नेहरू ने भारत को विश्व के नक्शे पर एक महत्वपूर्ण राष्ट्र के रूप में प्रतिष्ठित किया। लेकिन यह सब सिक्के के एक पहलू हैं, उसका दूसरा पहलू काफी अलग है। बेशक इस दूसरे पहलू के सन्दर्भ में भी काफी अध्ययन हो चुका है, बावजूद इसके लगता है कि स्वाधीनता के पहले दशकों में संकट में राष्ट्र के बारे में अभी कुछ बाकी है। जिसके बारे में पढ़ा-लिखा जाना चाहिए। मैं अपना वक्तव्य अब भी 'कुछ बाकी' के कुछ साहित्यिक चित्रण पर केन्द्रित करूँगा।

हम जानते हैं कि 1947 ई। की स्वाधीनता के बाद भारत की स्वाधीन सरकार ने मिश्रित अर्थव्यवस्था की आड़ में देश के विकास के लिए जो पूंजीवादी रास्ता अपनाया, उससे देश की आम जनता, विशेष रूप से ग्रामीण क्षेत्र की जनता की बदहाली बढ़ती गई। भारतीय अर्थतंत्र पर अंग्रेजों और उनके सामंती तथा इज़ारेदार सहायकों के प्रभुत्व को समाप्त किये बिना देश की जनता का आर्थिक विकास दिन दिन में तारे देखने जैसा हुआ। इसके चलते देश की जनता की आर्थिक उन्नति तो दूर रही, अवनति को रोकने का संघर्ष और अधिक कठिन हो गया। सत्ता जनता के एक बहुत बड़े समुदाय से कटकर एक सीमित वर्ग के हाथों में केंद्रित हो गई। स्वाधीनता आंदोलन की मूल कारक शक्ति जनता थी, वही उपेक्षित हो गई। सेना, पुलिस, नौकरशाही, न्यायव्यवस्था आदि के रूप में राजसत्ता पूंजीवादी व्यवस्था का अंग बनी। भारत जैसे धर्म बहुल देश में धर्मनिरपेक्षता की नीति समाज निरपेक्षता के रूप में प्रतिफलित हुई। फलस्वरूप समाजसुधार संबंधी कार्य अधूरे रह गए। इससे समाज की विघटनकारी शक्तियों को खुलकर खेलने की छूट मिली। जगह-जगह जातीय व सांप्रदायिक दंगे हुए, आज़ादी मनमानी लूट-खसोट की पर्याय बन गई। सांप्रदायवाद, जातिवाद, भाई-भतीजावाद को निजी ही नहीं, सार्वजनिक संस्थानों से भी बढ़ावा मिला। पंचवर्षीय योजनाओं, पंचायत व्यवस्था, जमींदारी उन्मूलन, भूदान आंदोलन के लाभ से साधारण किसान जनता वंचित रही। सहकारी समितियों, विकासखंडों की स्थापना का लाभ ग्रामीण क्षेत्र के मुट्ठी भर प्रभावशाली संपन्न व्यक्तियों और नौकरशाही द्वारा उठाया गया। लेकिन इस ताम-झाम का पूरा बोझ आम आदमी के सिर पर पड़ा।

अगर इसे साफ़ साफ़ शब्दों में कहें तो 1947 में सत्ता परिवर्तन होते ही कांग्रेस पार्टी ने व्यवस्था परिवर्तन की बात करनी छोड़ दी। समाजवाद का लुभावना नारा जरूर लगाती रही। लेकिन शासन व्यवस्था उसे उपनिवेशवादी ही रास आई। इसलिए स्वाधीनता संग्राम का नेतृत्व करने वाली कांग्रेस पार्टी और 1947 के बाद शासन करने वाली शासक पार्टी के रूप में कांग्रेस की दो अलग भूमिकाएं हैं। हालाँकि

1947 में सत्ता परिवर्तन होते ही कांग्रेस पार्टी ने व्यवस्था परिवर्तन की बात करनी छोड़ दी। समाजवाद का लुभावना नारा जरूर लगाती रही। लेकिन शासन व्यवस्था उसे उपनिवेशवादी ही रास आई। इसलिए स्वाधीनता संग्राम का नेतृत्व करने वाली कांग्रेस पार्टी और 1947 के बाद शासन करने वाली शासक पार्टी के रूप में कांग्रेस की दो अलग भूमिकाएं हैं।

आज़ादी से पहले ही कांग्रेस की भूमिका में स्वाधीनता के बाद वाली भूमिका के बीज मौजूद थे। जिसे फनीश्वरनाथ रेणु ने सन 1954 में लिखित अपने उपन्यास मैला अंचल में संकेत किया है। उपन्यास में हम देखते हैं कि 1948 के तुरंत बाद आदिवासी संथालों को सजा होती है। चलितर कर्मकार को वारंट भी वापस नहीं होते, सबसे ऊपर यह कि गाँव में बेहद लोकप्रिय डॉ. प्रशांत कुमार को शासक कांग्रेस द्वारा गिरफ्तार कर जेल भी भेजा दिया जाता है। रेणु ने अप्रैल 1948 के आसपास उपन्यास का अंत किया है और सत्ता परिवर्तन के 8-9 महीने में ही कांग्रेस पार्टी को एक शोषक रूप में अच्छी तरह उद्घाटित कर दिया है। कांग्रेस शासन में ताकत व कालाबाजारी कांग्रेसी दुलारचंद कापरा जैसे लोगों के पास है। सत्ता के तंत्र वही हैं- पुलिस इंस्पेक्टर इत्यादि और यही कापरा अपने कालाबाज़ार के धन्धे के लिए गाँधी के सहादत के दिनों में ही गाँधी के प्रिय शिष्य बावनदास को भी गाड़ियों के नीचे जिन्दा ही कुचलवा डालता है। बावनदास की मृत्यु को रेणु ने हिन्दुस्तान के एक बड़े मूल्य व विचार के हत्या के रूप में देख लिया था- "बावन ने दो आज़ाद देशों की, हिंदुस्तान और पकिस्तान की, ईमानदारी को, इंसानियत को, बस दो डेग में ही नाप लिया।" बावनदास के हत्यारे आज़ादी के बीस वर्ष के भीतर ही खुलकर समाज, राजनीति व शिक्षा के ठेकेदार बनकर उभरते हैं। हम इन्हें श्रीलाल शुक्ल के उपन्यास रागदरबारी में देख सकते हैं। उपन्यास के फ्लैप पर बहुत महत्वपूर्ण पंक्तियाँ लिखी गई हैं, शिवपालगंज की पंचायत, कॉलेज की प्रबंध समिति और कोऑपरेटिव सोसाइटी के सूत्रधार वैद्य

जी साक्षात् वह राजनीतिक संस्कृति है, जो प्रजातंत्र और लोकहित के नाम पर हमारे चारों ओर फल-फूल रही है। उपन्यास का एक मुख्य पात्र है- रंगनाथ। उसके मनोदशा का चित्रण करते हुए श्रीलाल शुक्ल ने लिखा है- "सनीचर की विजय के दिन उसने बहुत सोच डाला और उस दौरान उसे प्रदेश की राजधानियों में न जाने कितने वैद्यजी और मुख्यमंत्रियों की कतार में न जाने कितने सनीचर घुसे हुए दिख पड़े।" रंगनाथ के बहाने उपन्यासकार का यह कथन देश की जनतांत्रिक प्रणाली पर एक गहरा कटाक्ष है। एक तरफ़ वैद्यजी जैसे लोग सत्ताधारी हैं और दूसरी तरफ़ जनता हैं। कहने की आवश्यकता नहीं है कि राष्ट्रगीत में यही वैद्यजी जैसे लोग ही भारत के भाग्य-विधाता हैं, जो अधिनायक हैं, जिन्हें पहचानने के लिए रघुबीर सहाय ने अपनी कविता 'अधिनायक' में सवाल पूछा था कि-

*"राष्ट्रगीत में भला कौन वह
भारत-भाग्य-विधाता है
फटा सुथन्ना पहने जिसका*

गुन हरचरना गाता है
मखमल टमटम बल्लम तुरही
पगड़ी छत्र चँवर के साथ
तोप छुड़ा कर ढोल बजा कर
जय-जय कौन कराता है।”

इस कविता को पढ़ते हुए एक महत्वपूर्ण सवाल उभरता है कि लोकतंत्र का रखवाला आखिर अपना जय-जय कराने वाला इतना ताकतवर और खूंखार क्या आज़ादी के मात्र बीस वर्षों के दौरान ही हुआ, क्या वह मात्र साम्राजवाद और पूंजीवाद का ही उत्तराधिकारी था, मुझे लगता है कि उसे भारतीय समाज व्यवस्था के सामंतवादी मानसिकता में भी खोजना होगा। लोकतंत्र के विफलता के कारणों में सामंती सोच के सन्दर्भ में आलोचना के क्षेत्र में बहुत कम अध्ययन हुआ। मुझे लगता है कि भारतीय लोकतंत्र के सफल न होने के वजहों में यहाँ की राजनीति और नौकरशाही की अपनी वर्गीय और सामाजिक पृष्ठभूमि की बड़ी भूमिका है। ये दोनों यानी नेतृत्व और तंत्र अपने अतीत के संस्कारों से ऊपर उठ ही नहीं पाए। लोकतंत्र के इस अधूरेपन से भारतीय राजनीति में राममनोहर लोहिया लगातार लड़ते रहे। यही वजह भी है कि तत्कालीन साहित्यकारों को सबसे अधिक लोहिया ने ही प्रभावित किया था।

भारतीय लोकतंत्र में मोहभंग को गहरा करने में दो महत्वपूर्ण घटनाओं की बड़ी भूमिका है- पहली, भारत-चीन की लड़ाई और दूसरी, सन 1967 के चुनाव में कांग्रेस की हार। तब भारत एक भयंकर संकट से गुजर रहा था। मुक्तिबोध ने 'एक साहित्यिक की डायरी' (1963 ई।) में 'एक लंबी कविता का अंत' शीर्षक के अंतर्गत लिखा है, "ऐसी स्थिति में जबकि समाज में संजीवनकारी उत्प्रेरक आंदोलन या ऐसी संगठित शक्ति नहीं है, एक संवेदनशील मन जिसमें अब तक अवसरवादी कौशल और लाभ-लोभ की समझदारी विकसित नहीं हुई है, केवल अपने को निस्सहाय महसूस करता है। यदि वो कवि होता है तो सहज मानवीय आकांक्षाओं के सामाजिक वातावरण के अभाव में उसके काव्यात्मक रंग अधिक श्यामल, अधिक बोझिल और अभावग्रस्त हो जाते हैं।" लेकिन रघुवीर सहाय अपनी कविता 'एक अधेड़ भारतीय आत्मा' में साफ शब्दों में कहते हैं-

“बीस बरस बीत गए
लालसा मनुष्य की तिलतिल कर मिट गयी।।।
टूटते टूटते
जिस जगह आकर विश्वास हो जायेगा कि
बीस साल धोखा दिया गया
वहीं मुझसे फिर कहा जाएगा
विश्वास करने को।”

जाहिर है, इस स्थिति का जिम्मेदार वह तंत्र और नेतृत्व था, जिसने आज़ादी के बाद सामाजिक आधारों को बदले बगैर 'लोकतंत्र' की कल्पना की थी। इस लोकतंत्र के हवाले से उसने जनता की मुक्ति और विकास का वायदा किया था। लेकिन

समय बीतने के साथ ही इस तंत्र के लोकतान्त्रिक दावों की कलाई खुलती गई और इन दावों का असत्य प्रकट होता गया-

“दूर.....
राजधानी से
कोई क़स्बा दोपहर बाद छटपटाता है,
एक फटा कोट, एक हिलती चौकी, एक लालटेन
दोनों, बाप मिस्तरी और बीस बरस का नरेन
दोनों पहले से जानते हैं पेंच की मरी हुई चूड़ियाँ
नेहरु युग के औज़ारों को
मुसद्दी लाल की सबसे बड़ी देन।”

कविता की इन पंक्तियों में रघुवीर सहाय 'मिस्तरी' बाप और 'बीस बरस के नरेन' के माध्यम से स्वतंत्र भारत में जी रहीं दो पीढ़ियों का मूल्यांकन कर रहे हैं, जो पेंच के कसने की मजबूरी में विफलता झेल रहे हैं। मरे हुए पेंच यानी अन्दर से घिसे हुए पेंच को आप कहीं भी कसे वह कसेगा नहीं। लोकतंत्र और आज़ादी का ढांचा तो खड़ा किया गया परन्तु उस ढांचे को कसने वाला पेंच घिसा हुआ साबित हुआ। 'घिसे हुए पेंच' से तात्पर्य है- भारतीय नौकरशाही की वह मानसिकता है जो उसे सदियों से विरासत में मिली है। यही वह मानसिकता की विरासत जो लोकतंत्र के ढांचे को खड़ा नहीं होने देता है। अंततः यह भारतीय राष्ट्र को संकट की ओर ले जाता है। मुसद्दीलाल की जमातों ने अपने वर्गीय और सामाजिक स्वार्थों की कभी छोड़ा ही नहीं। इसीलिए आज़ादी के बीस साल बाद धूमिल को लोकतंत्र बेमतलब का लगता है-

“बीस साल बाद और इस शरीर में
सुनसान गलियों से चोरों की तरह गुज़रते हुए
अपने-आप से सवाल करता हूँ-
क्या आज़ादी सिर्फ़ तीन थके हुए रंगों का नाम है
जिन्हें एक पहिया ढोता है
या इसका कोई खास मतलब होता है?”

आज़ादी के बाद दिखने वाले अंधेरे की घुटन अलग तरह की वेदना की तरह रिसती हुई सामने आती हैं। लेकिन मुक्तिबोध की अंतर्घनीभूत पीड़ा से बिल्कुल अलग धूमिल का बेहद मुखर आक्रोश कुछ इस तरह फूटता और हमसे टकराता है कि हम अपने भीतर एक झनझनाहट-सी महसूस करते हैं। मुक्तिबोध के 'अंधेरे में' के भीतर आधी रात को डोमाजी उस्ताद के पीछे-पीछे चलने वाले पत्रकार, सैनिक, ब्रिगेडियर, जनरल धूमिल की पटकथा में बिल्कुल परिभाषित कर दिए जाते हैं-

‘वे वकील हैं/
वैज्ञानिक हैं/
अध्यापक हैं/
नेता हैं/
दार्शनिक हैं/
लेखक हैं/
कवि हैं/
कलाकार हैं।’

यानी कि-
कानून की भाषा बोलता हुआ
अपराधियों का एक संयुक्त परिवार है।”

मुक्तिबोध और रघुवीर सहाय के बाद धूमिल तब के जटिल समय के ताले खोलने वाली तीसरी बड़ी आवाज हैं। जो बम मुक्तिबोध के भीतर कहीं दबा पड़ा है और रघुवीर सहाय के यहां टिकटिक करता नजर आता है, धूमिल तक आते-आते जैसे फट पड़ता है।

जिस तरह मुक्तिबोध, रघुवीर सहाय, राजकमल चौधरी आदि कवि राजनीति से प्रभावित हुए उसी प्रकार समकालीन राजनीति का प्रभाव धूमिल पर भी प्रत्यक्ष रूप से देखा जा सकता है। धूमिल युवा वर्ग के रहे कवि हैं और वे स्वयं ये मानते थे कि युवा लेखन के लिए राजनीति से परिचित रहना बेहद जरूरी है। मोहभंग को नई कविता से अलग करके नहीं देखा जा सकता। हालाँकि धूमिल का मोहभंग नई कविता के कवियों से भिन्नता लिए हुए है। यह भिन्नता बहुत स्थूल न होकर सूक्ष्म है। नयी कविता के कवियों में मोहभंग से गहरी पीड़ा उत्पन्न होती है, लेकिन धूमिल को झटका तो लगता है परन्तु वे चीत्कार नहीं करते। वे तमाम चीजों को सहज रूप में लेते हैं। वे अपने को जनतंत्र और व्यवस्था पर केन्द्रित करते हैं और उसकी असलियत उजागर करते हैं।

“दरअसल अपने यहाँ जनतंत्र
एक ऐसा तमाशा है
जिसकी जान
मदारी की भाषा है।”

निष्कर्ष:

भारत की स्वाधीनता के पहले दो दशक का हिंदी साहित्य लोकतंत्र के लगातार छीजते जाने और संकट में पड़ते जाने का साहित्य है। तब के राष्ट्र को रघुवीर सहाय शब्दों में कह सकते हैं कि “लोकतंत्र मोटे, बहुत मोटे तौर पर लोकतंत्र ने हमें इंसान की शानदार जिंदगी और कुत्ते की मौत के बीच चाँप लिया है।” इस दौर में आज़ादी से मोहभंग का सिलसिला धूमिल तक आते-आते उफान पर था। यह विषम और भयावह परिस्थितियों तथा विसंगतियों का ऐसा काल था जहाँ हर तरफ़ लोगों के सपनों, आशाओं और आकांक्षाओं के टूटने और बिखरने की अनुगूँज सुनाई देती थी। जहाँ ईमानदारी, सच्चाई, भाईचारा, अहिंसा, आज़ादी इत्यादि सब अपना अर्थ खो चुके थे। यह वह समय था जब ‘सहानुभूति और प्यार के नाम पर एक आदमी दूसरे को, अँधेरे में ले जाता और उसकी पीठ में छुरा मार देता है।’ यह ऐसा समय था, जब सहज होना भी कठिन और दुर्लभ हो गया था। ऐसे समय में नक्सलवादी जैसे आन्दोलन का जन्म होना लाजिमी था। कुल मिलाकर स्वाधीनता के बाद पहले बीस वर्षों का हिंदी साहित्य केवल नेहरू-युग की ही आलोचना नहीं है, बल्कि वह जैसी लोकतांत्रिक संरचना हमने बनाई है, उसके मूल अंतर्विरोधों और खतरों का भी साहित्य है।

पूर्वोत्तर प्रभा



हिन्दी और इसकी बोलियाँ सम्पूर्ण भारत के विविध राज्यों में बोली जाती हैं। भारत और अन्य देशों में भी लोग हिंदी बोलते, पढ़ते और लिखते हैं। फ़िजी, मॉरिशस, गयाना, सूरीनाम, नेपाल और संयुक्त अरब अमीरात में भी हिन्दी या इसकी मान्य बोलियों का उपयोग करने वाले लोगों की बड़ी संख्या मौजूद है। फरवरी २०१९ में अबू धाबी में हिन्दी को न्यायालय की तीसरी भाषा के रूप में मान्यता मिली।

'देशी', 'भाखा' (भाषा), 'देशना वचन' (विद्यापति), 'हिंदवी', 'दक्खिनी', 'रेखता', 'आर्यभाषा' (दयानन्द सरस्वती), 'हिंदुस्तानी', 'खड़ी बोली', 'भारती' आदि हिंदी के अन्य नाम हैं जो विभिन्न ऐतिहासिक कालखण्डों में एवं विभिन्न संदर्भों में प्रयुक्त हुए हैं। हिन्दी, यूरोपीय भाषा-परिवार के अन्दर आती है। ये हिन्द ईरानी शाखा की हिन्द आर्य उपशाखा के अन्तर्गत वर्गीकृत है।

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**WOMEN STUDY - ADVERSE IMPACT OVER BUSINESSES – IN DEARTH OF
WOMEN DURING INCUBATION / INNOVATION**

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Abstract

The position of woman in the global has been the concern to many great changes over the past few millennia. In the process of finding social and cultural erection of gender structure of privilege and domination; and the association between supremacy and gender as they traverse with other identities such as race, socio-economic status, sexual behavior and ailment. This paper studies focusing on the areas and dimensions of alienation of women's presence at the time of technological incubations and new business proposals. It further points on the gaps and incompatibility of emerging technologies which are in blooming stage. Later deeply studies on various innovations taken place in the recent times - how gender gap has been forefront without involvement of women. Why it's been said that women are not expected to achieve parity in patenting until 2092? And if so, what would be the consequences? Finally proving that for any innovation or business proposals needs to be sustainable in terms of Return on Investments (ROI) and that's possible by diminishing the gender gap.

Keywords: Innovation, Incubation, technology, Return on Investment, gender gap

Introduction:

Time in memorial, our societies have been always dominated by male supremacy. Without any exception the social structure has always been patriarchal in nature. Patriarchal relations in cultural institutions always gifted women with sexuality, violence and designating all the jobs that were not in the interest of men. Despite several advancements in research and technology, Aristotle is still seen as father of several sciences who out raged the modesty of women by calling them as defective part of humanity. His ideology towards women was too low that he called that women are by product of mistake of low temperature during conception. Between 16th and 19th centuries capitalist economic practices in England, borrowed the ideology of Aristotle in two variants. Firstly; man is intellectually supercilious to woman. The other strong believe is that woman has caused the first sin in the 'Garden of Eden' because of her libido not that of man.

With this background women were alienated of their legal rights on their own property that was previously held by them before the emergence of industrialization. As in Europe capitalism was male centric during industrialization and this was the rise of woman's economic oppression, limiting her within the frontiers of being weak, delicate and object of sex. As one of the vital hindrances for women entrepreneurs that they could not legally execute a business agreement on their own with their own money. Since right to inheriting

Soil microbial diversity of peri-urban agricultural field and riverbank along Yamuna river in Delhi, India

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Abstract

Soil microbes play an important role in the earth's ecosystem; variations in any environmental factor would have a great impact on microbial function and diversity. Yamuna river is regarded as one of the most polluted rivers in India. It is a major source of water for household and agricultural practices in Delhi and its national capital territory regions. In the present work, we studied the physico-chemical properties and soil microbial diversity in riverbanks and agricultural field along the Yamuna river. Physicochemical properties indicate the soil quality of the two distinct soil sites and correlation analysis showed that these are the key factors responsible for shift in soil bacterial community. Characterization of soil microbial community was done. Sequence analysis showed that both riverbank soil and field soil harbor microbial community with variation in their relative abundance. *Proteobacteria* is the dominating bacterial community in both riverbanks (70.03%) and agricultural field soil (56.41%) while *Bacteroidetes* (38.39%) in riverbank soil and *Actinobacteria* (11.3%) in agricultural field soil. Field soil also harbors some specific group of bacteria, i.e., *Actinomycetes* and *Cyanobacteria*. Bioinformatics and statistical analysis showed that bacterial community was found to be significantly different in two soil environments and mainly driven by climatic conditions and concentration of pollutant. Our work provides insight into soil quality, microbial community, and phylogenetic turnover under different soil conditions in polluted areas.

Keywords Yamuna river · Agricultural Fields · 16S rRNA gene · T-RFLP · Microbial diversity

1 Introduction

Microbes are one of the most important constituents of a soil ecosystem. They are essential for various biogeochemical and nutrient cycles in the environment. Among the soil microbes, bacteria are the most abundant and thoroughly studied groups. They are present in the entire ecological niche from deep-ocean to high mountain ranges. However, the microbial populations found in the extremely different ecosystem vary from one another. Microbes are highly dynamic in nature and are sensitive toward changes in the surrounding ecosystem, viz. nutrients, toxicants, temperature, pH, and moisture. This property of soil

microbes makes them a suitable candidate as bioindicator of changing environmental conditions. Many studies have been done on soil bacterial community and show the dynamic nature of bacterial groups in correlation with various environmental factors [1–3].

Yamuna river is regarded as a lifeline for many big cities comes along its journey from Himalaya to Uttar Pradesh. It is a major source of water for people residing near its bank. With the help of various dams, river water is used for household purposes as well as for agriculture practices. In Delhi, 70 percent of water supplies come from Yamuna river. It enters in Delhi from Palla village at Delhi-Haryana border and exit from Basantpur at Delhi-Uttar Pradesh

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Psidium cattleianum (Myrtaceae): Naturalised edible species in Agasthyamalai Biosphere Reserve, India

J.V. Sudhakar, Arumugam, S. and C. Murugan

ABSTRACT: *Psidium cattleianum* Afzel. ex Sabine (Myrtaceae), an invasive species, known from Australia, America, South Africa, Pacific Islands, is naturalised and spreading rapidly in Kalakad-Mundanthurai Tiger Reserve, a part of Agasthyamalai Biosphere Reserve, southern Western Ghats of Tamil Nadu. A short description along with colour images is provided for easy identification, eradication and control measures.

KEYWORDS: *Psidium*, Naturalised, Kalakad-Mundanthurai Tiger Reserve, Agasthyamalai Biosphere Reserve, Control measures.

INTRODUCTION

The genus *Psidium*, a native of Mexico, Central and South America, described by Linnaeus in 1753, is represented by c. 140 species and distributed almost throughout the World. Many of the species bear edible fruits, and are cultivated commercially. Hooker (1879) recorded one species and two varieties under cultivation in India. During the plant exploration to Kalakad-Mundanthurai Tiger Reserve, a part of Agasthyamalai Biosphere Reserve, southern Western Ghats of Tamil Nadu, authors observed dense patches of naturalised population of *Psidium* species on hill slopes in and around Nallumukku, way to Upper Kothayar forest areas, which is closely allied to common guava (*Psidium guajava* L.). The plant specimens were critically studied and identified as *Psidium cattleianum* Afzel. ex Sabine after the perusal of literature (Schroeder, 1946; Chithra, 1983; Almeida Lopes and Oliverira Silva, 2018) and online resources (Kew herbarium catalogue, Tropicos and The plantlist & POWO). Herbarium records show that this species was collected from Kothayar hills between 1996-2000 also but the specimens were wrongly identified as *Eugenia discifera* Gamble.

It is a native of South America (eastern Brazil and north-eastern Uruguay) and widely distributed in Australia, America, South Africa, Pacific Islands. It is a highly invasive, wide spread species listed in Global Invasive Species Database (GISD), and is regarded to be among the top 100 of the world's worst invasive alien species by the IUCN Invasive Species Specialist

Group (ISSG). It was probably introduced in India during British period for of its fruits.

It propagates rapidly and forms dense monotypic patches due to quick dispersal of its coloured fruits and seeds by different birds, as well as through its root sprouts (suckers). It prevents growth and regeneration of native species, and is very difficult to eradicate; it also provides shelter for fruit flies which cause extensive agricultural damage. As per the local forest dwellers information, it is quickly spreading to different reserve and core forest areas of Mundanthurai and Kanyakumari ranges, and may pose a threat to endemic and indigenous species. Apart, Research scholars from Bharathiar Univeristy, Coimbatore also collected this species from Nilgiri hills between Ooty to Naduvattum and confirmed its identity with Botanical Survey of India. Thus, it has spread to Nilgiri Biosphere Reserve too. Hence, immediate steps should be taken for eradication of this species to prevent its further spread to other forests of Western Ghats. A detailed description, notes and field photographs are provided for easy identification and relevant discussion on eradication and control measures is also dealt with.

Psidium cattleianum Afzel. ex Sabine in Trans. Hort. Soc. London 4: 317. t. 11. 1821 "*cattleianum*"; Schroeder in J. Arnold. Arbor 27: 314. 1946; Chithra in N.C. Nair & A.N. Henry, Fl. Tamil Nadu 1: 154. 1983. (Plate 1)

Local names: *Eng.*: Cattle guava, Purple guava, Red strawberry guava, Red cherry guava. *Tam.*: Seemai Koyya

Bushy shrub or small tree, up to 4 (-5) m tall, many-branched, often branching from base; branchlets rounded, usually glabrous or rarely puberulous, red; branches and older stems glabrous, reddish or purplish brown to grey; bark smooth, grey to reddish-brown, peeling off in papery flakes. Leaves simple, opposite, ovate to elliptic or obovate, 4 - 7 × 2.5 - 4 cm, leathery, dark green, glossy above, pale, punctuated with

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सामयिक प्रकाशन समाज और इतिहास

नवीन शृंखला

14

मौखिक परंपरा में प्रवसन : परिवर्तन और निरंतरता

धनंजय सिंह

जूनियर फेलो, नेहरू स्मारक संग्रहालय एवं पुस्तकालय,
तीन मूर्ति भवन, नई दिल्ली



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सर्वाधिकार सुरक्षित। लेखक की लिखित अनुमति के बिना इस प्रकाशन के किसी भी अंश का दोबारा प्रयोग, पुनरोत्पादन किसी भी रूप में नहीं किया जा सकता। इसमें व्यक्त विचार, अर्थनिर्धारण तथा निष्कर्ष पूर्णतः लेखक के हैं और किसी भी तरह, पूर्णरूपेण अथवा अंशतः, नेहरु स्मारक संग्रहालय एवं पुस्तकालय के विचारों को नहीं दर्शाते।

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The Image of Women in Folk-Traditions of Migration

Dhananjay Singh*

In India's largest linguistic region, i.e., the Bhojpur region, migration has created three distinct folk traditions—the *banijiya* (trader) tradition, the *sipahiya* (soldier) tradition, and the *bidesiya* (foreigner) tradition. Despite being entrenched in social and cultural differences, the sentiments in these traditions have had mutual interaction. The present paper throws light on the image of women in these three traditions. Migration in the Bhojpur region has primarily meant out-migration of men, the effects of which are serious on women. In the absence of men, several responsibilities have to be shouldered by women, which involve a wide array of roles. In this process, women have to emotionally suffer separation on the one hand and endure familial and social oppression (including sexual exploitation) on the other. The upshot of this is of course that women become empowered in the process: empowered to undertake agriculture and fulfil social responsibilities skilfully although they are not able to claim economic independence. A cursory look at any aspect of folk traditions is enough to show that while the exploited side of separated women is highlighted, the

empowered facet is underplayed. This negative yet idealistic imagery of women is particularly true of songs and stories sung and told by men, and to a lesser degree, those by upper-caste women. The image is of an oppressed, betrayed and downtrodden woman who has not found her voice to protest. In contrast some of the folk-songs of low-caste women are powerful symbols of resistance, sometimes quite shrill and even vulgar going by standards of the language. Vulgarity and frivolity in language creates in the minds of the opposition, an image of an empowered entity, even though the former casts these songs and songstresses as uncivilised, rustic, backward etc.

At this transitional stage towards the establishment of ideological hegemony the end of every idea and artefact has been declared by globalised cultural imperialism on the one hand, while on the other, oppressed identities are not merely trying to find their past, but write their histories afresh. On the one hand imperialism is strengthening traditional authorities and on the other hand oppressed identities are coming to the fore. It

* Dr. Dhananjay Singh, Assistant Professor, Dr. SRK Govts. Arts College, Yanam, Puducherry - 533 464. The present paper is an edited version of a paper presented in a public seminar in Tata Institute of Social Sciences, Patna on 23rd July 2016. Translated from Hindi by Dr. Srirupa Bhattacharya. The translator has completed her doctorate in Sociology from Centre for the Study of Social Systems, Jawaharlal Nehru University and is currently teaching Sociology in Kamala Nehru College, New Delhi.



Research article

Diversity of nitrogen-fixing bacteria in agricultural field soil along the Yamuna River, Delhi, India

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Abstract

Nitrogen-fixing bacteria play an important role in sustaining soil health. The diversity was studied in nitrogen-fixing bacteria using the *nifH* gene along the Yamuna River in Delhi-National Capital Region. The *nifH* gene is a part of the *nif* regulon, which codes for an Fe-protein of the nitrogenase enzyme complex, responsible for the reduction of dinitrogen (N₂) to ammonia (NH₃) during biological nitrogen fixation. Soil samples were collected from agricultural fields near the Yamuna River. Terminal restriction fragment length polymorphism analysis of soil DNA using the TReFID software package showed community comprising different nitrogen-fixing bacterial phyla, dominated by the *Proteobacteria* (26.87%) and *Actinobacteria* (2.9%). The relative abundance of these two phyla increased downstream along the river while the relative abundance of the *Cyanobacteria* decreased. The maximum overall microbial diversity index was lower downstream and during the summer season. It was concluded that the seasonal variation in temperature and moisture and the increases in the pollution of the water directly affected the microbial diversity as well as the relative abundance of the nitrogen-fixing bacterial population in agricultural fields along the Yamuna River.

Introduction

Nitrogen is one of the most abundant elements in the earth's atmosphere; however, more than 78.08% of the total nitrogen is in the form of nitrogen gas which is unavailable to living organisms (Wagner, 2011). Living organisms can use nitrogen in the form of ammonium or nitrate ions (Wagner, 2011). The process of converting atmospheric nitrogen gas into these ions is known as nitrogen fixation and it occurs either through atmospheric or biological processes, with biological nitrogen fixation being carried out by nitrogen-fixing microbes such as bacteria and algae (Wagner, 2011). Nitrogen-fixing bacteria are responsible for 90% of total biological nitrogen fixation, with the *Cyanobacteria* being the most important bacterial community (Georgiadis et al., 1992).

Biological nitrogen fixation by bacteria is carried out using a nitrogenase enzyme which is a complex of two major dinitrogenase proteins (the MoFe- and Fe-proteins) coded by the *nifHDK* gene (Georgiadis et al., 1992). Among these genes, *nifH* is the most conserved and codes for the Fe-protein of the nitrogenase enzyme complex (Georgiadis et al., 1992). It is one of the oldest and most thoroughly studied functional genes; it is easily amplified by a universal set of primers and has an extensive collection of sequences obtained from both cultured and uncultured organisms, being widely used in independent cultural studies to determine the potential nitrogen capacity of the soil (Zehr and Turner, 2001).

The Yamuna River is one of the most important rivers in India, with a number of important cities depending on its river water for their basic requirements, including irrigations and household purposes (Central Pollution Control Board, 2006). However, today the Yamuna

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**HUMAN RESOURCE/ LABOUR LAWS AND HUMAN RESOURCE
MANAGEMENT PRACTICES: AN INDIAN PERSPECTIVE**

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ABSTRACT:

“Ignorance of law is not considered in the court of law”

As a business grows, the web of laws and regulations to which it is subject becomes increasingly complex. Human resources laws governing the employer-employee relationship comprise a significant part of this regulatory burden. The landscape of statutes of labor laws is constantly evolving, and it takes a special agility to keep abreast of all the latest developments and ensure compliance. It is absolutely imperative to comply with all legal and statutory norms for businesses to operate successfully in India. This often involves significant investment of resources, time, and continuous monitoring to be in the know of all the changes that are happening, in order to be compliant and avoid penalties. With the ever-changing employment laws, it becomes a challenge for the companies to keep themselves compliant. On this backdrop, an attempt is made to overview the significance of Human Resource Laws in Human Resource Management practices in India.

Keywords: *Legal Compliances, Labor Laws, Human Resources and Non-compliance*

1. CONCEPTUAL FALLACY:

“Human resources are like natural resources; they’re often buried deep. You have to go looking for them; they’re not just lying around on the surface. You have to create the circumstances where they show themselves.”

- Ken Robinson

Human Resources Management (HRM) is a set of practices that businesses use to ensure that they have an effective workforce in place to meet operational needs. Successful organizations are those which value, develop and nurture their human capital to achieve their organizational goals and objectives. Human Resource Management Practices is a term used by many organizations which describes the combination of traditionally administrative personnel functions with performance, employee relations and resource planning. The objective of Human Resources is to maximize the return on investment from the organization's human capital and minimize financial risk. It is the responsibility of human resource managers to



TOURISM - A MAJOR GENERATOR OF ECONOMIC SPILL: AN OVERVIEW

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A well-managed tourism industry is truly a magic bullet. Besides its earnings and jobs, it builds a positive image for the country.

Abstract:

With the advancement of transport, communication and improvement in general economic well being the demand for tourism has increased concomitantly. Today tourism with its rapid growth rate is not only a big business but is also the world's fastest growing industry. Tourism industry is of paramount concern for India's economy as it is a major source of foreign exchange earnings and it can help cored adverse trade balances and regional imbalances and create employment opportunities to give a direct stimulus to the socio-economic development of the economy. The basic materials for tourism industry are culture, heritages, natural vegetation, beaches, parks, monuments and sculptures, etc. which India possesses abundantly and can be exploited for the betterment of the economy. On the above backdrop, present study was undertaken to evaluate the growth of tourism industry and its impact on the overall growth of the economy.

Keywords: *Progress, Foreign and Domestic Tourists and Foreign Exchange Earnings*

1. CONCEPTUAL FALLACY

Today tourism is one of the main economic activities in the world. It generates an important investment and it can contribute to the economic growth and the social progress of the developing countries not only for its economic spill but also when favoring and encouraging the performance of activities that assist the demand of the tourists like lodging, feeding, transport, amusement, the knowledge of traditions, attractions and of the culture, among other, with the consequent generation of direct and indirect job positions; In addition it attracts national and foreign investment and it impels the regional infrastructure by means of the urbanization and construction of new and improved communication means.

Tourism has been pivotal in social progress as well as an important vehicle of widening socio-economic and cultural contacts throughout human history. The motivations for tourism

INDIA TOWARDS CASHLESS ECONOMY: AN ANALYSIS

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Abstract:

“Cash may no longer be the king.”

Digitalization is rapidly growing worldwide and has changed the business landscape. Markets are in a transition phase, from grocery stores, hyper markets to electronic markets and use of plastic cards, online shopping and electronic payments etc. The RBI and the Government are making several efforts to reduce the use of cash in the economy by promoting the digital/payment devices including prepaid instruments and cards. Digital transactions bring in better transparency, scalability and accountability. Demonetization in the last decade has witnessed a sharp raise of cashless transactions. In coordination with other institutions, government has been moving from cash-based to a cashless system in order to increase efficiency which leads to the idea of a futuristic, cashless society. On this backdrop, the present study has been undertaken to analyze the implications of the cashless transactions for the sustainable development of the economy not only in India, but also in the entire globe.

Keywords: Digitalization, Cashless, Demonetization, Sustainable Development and Transparency

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INTELLECTUAL PROPERTY RIGHTS IN THE DIGITAL ERA: AN OVERVIEW

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ABSTRACT:

Intellectual property has the shelf life of a banana.

- Bill Gate

With the advent of the information revolution, skills and knowledge have become the only source of sustainable long-term competitive advantage. Intellectual property lies at the center of the modern company's economic success or failure. Intellectual property rights are the rights given to persons over the creations of their minds for a certain period of time. The main purpose of intellectual property law is to encourage the creation of a wide variety of intellectual goods for consumers. These exclusive rights allow owners of intellectual property to benefit from the property they have created, providing a financial incentive for the creation of an investment in intellectual property. The WIPO treaty and several related international agreements underline that the protection of intellectual property rights is essential to maintaining economic growth. On this juncture an attempt is made to overview the concept of Intellectual Property Rights in the global era.

Keywords: *Intellectual Property Rights, Copyrights, Trademarks, Patents and Infringement*



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WOMEN EDUCATION AND EMPOWERMENT- PATHWAY TOWARDS ECONOMIC DEVELOPMENT: AN OVERVIEW

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“If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered”.

– Sri Jawaharlal Nehru

ABSTRACT

Today women play a leading role in development of the economy and without their active contribution there won't be any growth. Though women play an important role in the family and society, they are discriminated in all essential areas of life such as education, income, partner choice, inheritance laws, property rights, decision-making processes, community organization, or access to leadership positions in education, business, or politics etc. The need for empowerment of women thus arises from this harsh social scenario. Women can be empowered only when they are literate and women education is the key to unlock the golden door of freedom for development. It is the most powerful tool of change of their position in family and society by reducing the inequalities. On this backdrop, the present study is undertaken to overview the role of education in women empowerment in particular and the nation as a whole.

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SCENARIO OF WOMEN EDUCATION AND WOMEN EMPOWERMENT IN INDIA

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“Woman is an incarnation of ‘Shakti’- the Goddess of Power. If she is bestowed with education, India’s strength will double. Let the campaign of ‘Kanya Kelavni’ be spread in every home; let the lamp of educating daughters be lit up in every heart”

- Prime Minister Sri Narendra Modi

ABSTRACT:

Empowerment is a process of awareness and capacity building leading to greater participation, greater decision making power and control and transformative action. Empowerment of women signifies harnessing women power by conscientising their tremendous potential and encouraging them to work towards attaining a dignified and satisfying way of life through confidence and competence as person with self-respect, rights and responsibilities. The progress of any nation is inevitably linked with social and economic plight of women in that particular country. Educating a woman brings about self-esteem and confidence and also promotes active participation in society which in itself reduces poverty. Women can be empowered only when they are literate and women education is the key to unlock the golden door of freedom for development. The present study has been planned with a view to discuss the various issues related to Education and Empowerment of Women in India and to suggest measures for achieving this end.

Keywords: *Women Empowerment, Gender Inequalities, Self-Respect, Capacity Building and Women Education*

1. INTRODUCTION:

“If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered”.

– Sri Jawaharlal Nehru

Education is considered as a basic requirement and a fundamental right for the citizens of any nation. It is a powerful tool for reducing inequality as it can give people the ability to become independent. When women who contribute almost half of the population are empowered it will strengthen the national economy. Education is considered as a milestone for women empowerment because it enables them to respond to the challenges, to confront their traditional role and change their lives. Increasing access to education notwithstanding, gender discrimination still persists in India and lot more needs to be done in

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An Appraisal of various Women Empowerment Schemes in INDIA

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Abstract: Women empowerment is the empowerment of women which helps them to take their own decisions by breaking all personal limitations of the society and family. It is to bring equality in the society for both male and female in all areas. Women empowerment is very necessary to make the bright future of the family, society and country. Women need fresh and more capable environment so that they can take their own right decisions in every area whether for themselves, family, society or country. In order to make the country fully developed country, women empowerment is an essential tool to get the goal of development. In this paper an attempt has been made to appraise the various schemes launched for women empowerment in India.

Keywords: National Mission for Empowerment of Women(NMEW),Beti Bachao Beti Padhao(BBBP) ,One Stop Centres(OSC), Rashtriya Mahila Kosh(RMK) ,Swayamsidha scheme (SS),Self Help Groups (SHG).

1. INTRODUCTION:

Women's empowerment is the process in which women elaborate and recreate what it is that they can be, do, and accomplish in a circumstance that they previously were denied. Empowerment can be defined in many ways, however, when talking about women's empowerment, empowerment means accepting and allowing people (women) who are on the outside of the decision-making process into it. "This puts a strong emphasis on participation in political structures and formal decision-making and, in the economic sphere, on the ability to obtain an income that enables participation in economic decision-making." Empowerment is the process that creates power in individuals over their own lives, society, and in their communities. People are empowered when they are able to access the opportunities available to them without limitations and restrictions. Feeling entitled to make your own decisions creates a sense of empowerment. Empowerment includes the action of raising the status of women through education, raising awareness, literacy, and training. Women's empowerment is all about equipping and allowing women to make life-determining decisions through the different problems in society. Alternatively, it is the process for women to redefine gender roles that allows for them to acquire the ability to choose between known alternatives whom have

TRIBAL WOMEN EMPOWERMENT - A Case Study in Rampachodavaram

V. Sridevi

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Abstract: The tribal communities are specified with the criteria of geographical isolation, distinctive culture, backwardness, shyness to contact with others as they are far away from other community in hilly areas. But now a day's far away from city, living in hilly regions is not a hurdle as there is a number of transportation means. Government have initiated with many facilities, schemes, scholarships and so on for the development of the tribal community. Tribal women play a vital role in development of tribal areas. Development includes social, economical, educational, technological, hygiene environment, healthcare and empowerment. Women now days are aware about their rights and responsibility, improved means of living, self-reliance, self-esteem and self-confident. This study has made an attempt to highlight the empowerment of tribal women in Rampachodavaram, Andhra Pradesh. The literacy level, their participation in economic and commercial sector is considered in the study. They have immense knowledge in various schemes sanctioned by the Government.

Keywords: Empowerment, self-reliance, self-esteem, self-confident, socio-economic development, hygiene environment, literacy rate, technological development.

INTRODUCTION

Most of the populations in India lives in villages and far-flung remote areas. Though every region in India is connected with cities now, still it possesses its own peculiar traditional ethos. Most of the rural communities/Tribal's are still devoid of modern facilities like education, electricity, proper drinking water, health care, ample transportation, etc. But the lack of education in many of the rural belts of India is proving fatal and acting as the breeding ground for social vices, evils and paving the way to anti-social/national activities. Education enhances ones competence level to cope up better in physical and social environments. Bourdieu, an educational sociologist refers it to as cultural capital and argues that it is the dominant culture known as "cultural capital" because, via the educational system it can be translated into wealth and power, which rural community is usually devoid of despite possessing abundant resources and man power. It can transform the rural/tribal communities of India by: Ensuring the upward social mobility among people, by liberating them from caste, groups and superstitious beliefs. Further education will ensure opportunities for functional employment thereby empowering rural folk for more economic opportunities, growth and development and can thus lead to the change in the whole map of poor and downtrodden rural landscape.

EMPOWERMENT OF WOMEN THROUGH SHGs: AN OVERVIEW IN ANDHRA PRADESH

V. Sridevi¹

Dr Yoginder Singh²

Abstract- The empowerment of women in India and the women exclusively in Andhra Pradesh through the self-help groups is the objective of this paper. SHGs play a very important role to improve the socio-economic conditions of women folk by developing savings and thrift habit, providing them micro finance at the time of needs and also encouraging micro entrepreneurs. SHGs Bank Linkage Programme is one of the several alternative channels of financial inclusion which help extensively to strengthen the poor specially women folk. Through SHGs women in rural areas are able to feel financial secured. They come forward with self-employment like petty shops, tailoring, rupee coin telephone booth, embroidery work etc. SHGs have organized many programmes relating to awareness of health and hygiene issues, importance of education for their children, acts pertaining to the safety of women etc.

Keywords: Self Help Groups (SHGs), Non-Government Organizations (NGOs), Micro Finance, Empowerment, Bank Linkage Programme.

1. Introduction

1.1 Self Help Groups

Self-help Groups (SHGs) are playing a major role in removing poverty in the rural India today. The group-based model of self-help is widely practiced for rural development, poverty alleviation and empowerment of women. Self-help as a strategy for social development places emphasis on self-reliance, human agency and action. It aims to mobilize people, to give them voice and build people's organizations that will overcome barriers to participation and empowerment. Self-help groups are seen as instruments for goals including empowering women, developing leadership abilities among poor people, increasing school enrolments, and improving nutrition and the use of birth control.

The origin of SHG is from Garmin Bank of Bangladesh. It has been acknowledged as a pioneer in the field of microfinance. Dr. Mohammed Yunus, Professor of Economics in Chittagong

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Original Research Article

Facile ionic liquid-mediated, multi component synthesis of dihydro-1*H*-furo[2,3-*c*]pyrazoles

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Ionic liquid

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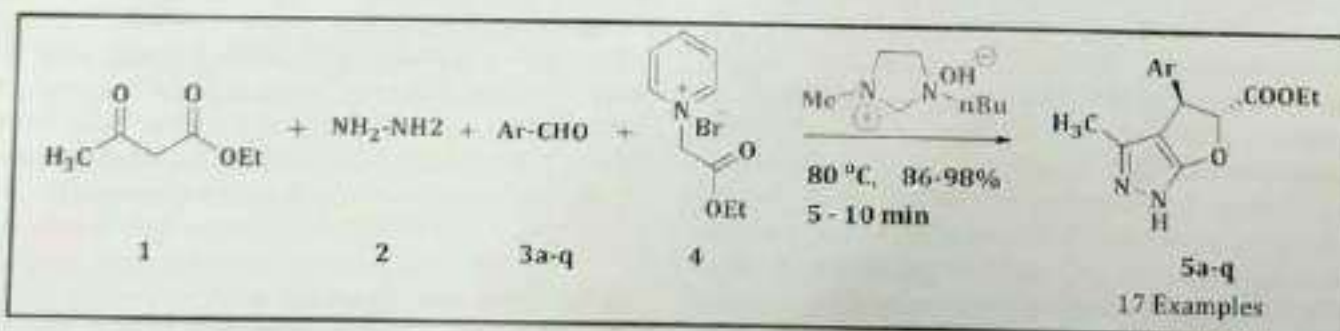
Dihydrofuro[1,2*b*]pyrazole

Green synthesis

ABSTRACT

A facile, convenient, efficient, and high-yielding diastereoselective synthesis of a novel fused dihydro-1*H*-furo[2,3-*c*]pyrazole by a one-pot four-component reaction of β -keto ester, hydrazine, aromatic aldehyde and pyridinium salt in the presence of [bmim]OH ionic liquid medium provided with excellent yields. Three new bonds (two C-C and one C-O), and two stereocentres are generated in a single operation. Low cost, short reaction time, excellent yield, operational simplicity, and more importantly the purification of the compounds by a non-chromatographic method make this process very significant for academic research and practical applications.

Graphical Abstract



Impact Of Quinalphos On Haematological Parameters Of Mammalian Model 'Albino Mice'.

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Abstract: The organophosphate chemical quinalphos banned or restricted in most nations is taking the major share of insecticides consumption in India. Since assessment of blood parameters detectable variations under stress condition the present study is concentrated on study of certain haematological parameters under quinalphos stress in mammalian model mice. Haematological parameters of mice exposed to single and multiple doses of quinalphos have shown remarkable changes in the present investigation.

Keywords: Albinomice, Haematological parameters, Toxicity, Quinal phos.

1. Introduction

Now a day's pesticide use becomes essential part for comfortable living. Even though pesticides have made a fantastic impact on the production and preservation of food and other commercial crops, they are found to affect non-target organisms including humans. People exposed to some highly toxic compounds may suffer short term (or) long term health problems (Rachel Massey, 2002). Pesticides also act as neurotoxins, carcinogens, and as endocrine disrupters. Quinalphos is an organophosphate chemical banned or restricted in most nations is taking the major share of insecticides consumption in India in various forms. Research information on the impact of quinalphos at tissue level and cellular level is not sufficient. Since blood parameters are probably the more rapid and detectable variations under stress and are useful in assessing the health condition (Hymavathi and Rao, 2000), the present study is focused on study of haematological parameters on mammalian model mice. Exposure to any toxin in nature is not similar in every case. Sometimes the exposure may be only once and sometimes it may be multiple times depending upon the lifestyle of the individual. To match with the natural exposure chances the present study is designed and the experimental animals are exposed to single and multiple times. Since the natural exposure generally happens to be sub lethal concentrations. So the exposure doses are restricted to sub lethal concentrations.

1.2 Materials and Methods:

Healthy, adult wistar strain albino mice of the same age group 75 ± 5 days and weighing (25 ± 5 gms) were taken from parental stock obtained from Veterinary College, Bangalore and maintained in a colony. The mice were maintained at laboratory conditions ($27 \pm 2^\circ\text{C}$; 12 hours light and 12 hours darkness). Mice were fed on standard diet and water supplied ad libitum. The mice cages were kept clean by removing fecal matter every day. The stock solution was prepared by dissolving the commercial grade quinalphos in distilled water. As the acute intraperitoneal LD₅₀ value of Quinalphos was 16 mg / kg body weight four fold lower concentration (4 mg/kg body weight) of it was selected as sublethal to study the effect of Quinalphos. Healthy adult animals weighing (25 ± 5) were divided into three groups

having eight animals each. The second and third groups of animals were termed as experimental animals. To the animals of second group single dose of Quinalphos (i.e., on 1st day) was administered intraperitoneally. Similarly multiple doses (i.e. on 1st, 3rd, 5th & 7th day) were given to third group of animals. The first group of animals were considered as controls after giving iso volumetric quantities of distilled water. Blood sample was drawn from the orbital venous plexus by puncturing with the tip of Pasteur pipette under light ether anaesthesia and the blood was allowed to fall drop by drop into a graduated centrifuge tubes containing EDTA, anticoagulant to the required quantity for haematological work. The bleeding was arrested by gently pressing the eye ball with the help of dry cotton. RBC, WBC count was made with a Neubauer crystalline counting chamber as described by Davidson and Henry (1969). Haemoglobin concentration was estimated by acid haematin method (Sahil, 1962). Packed cell volume (PCV) was estimated by microhaematocrit method (Schalm et al., 1975). Mean corpuscular volume (MCV) was calculated by dividing packed cell volume with red blood cell count and the result is multiplied by 10.

1.2.3 Results and Discussion

The haematological parameters in albino mice exposed to quinalphos for single and multiple doses have shown remarkable changes in the present investigation (Tables 1 to 4). The total RBC count was decreased both in single and multiple doses. In the case of single dose the percent change was 10.5 and 33.5 in multiple. The Hb content also decreased in single (10.9%) and multiple dose (25.7%) experimental animals when compared to controls. The PCV value was increased in single (32.8%) and multiple dose (10.4%) experimental animals. But all the values are significantly changed in quinalphos treated mice. This indicates that the pesticide effected on these parameters either directly or indirectly. Quinalphos treated mice obviously became progressively anaemic. The reduction in size and number of RBC and Hb content may be a consequence of severe haemorrhage which results in the dilution of blood caused by the influx of cells and fluids from body stores (Sharma and Saxena, 1983). Miller and Buhler (1974) reported that HCP, an organochlorine compound binds to RBC in vitro and



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DIGITALIZATION AND TALENT MANAGEMENT PRACTICES: AN OVERVIEW

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“HR needs to become digital to attract, retain and engage talent in a digital world”

- Jan Brouwer

ABSTRACT

Human capital is a precious and scarce resource and management of it is a crucial job for Human Resource Personnel and the technological innovations toughened it even more. Globally an organization's competitiveness will depend on its talent readiness, skill-sets and how it will bring in diversity of thought and perspectives for organizational excellence. The digital revolution and its fundamental transformation of business needs a future proofing talent management that plans ahead, not only possesses the skills that organizations need, but embodies the culture of innovation, creativity and adaptability that are so critical for success in the digital age. On the above backdrop, the present study is undertaken to overview the trends of talent management practices for the best of the organizations in particular and the nation as a whole.

Keywords: Talent Management, Digitalization, Human Resource, Human Capital & On-boarding

1. INTRODUCTION

“Talent management is the additional management processes and opportunities that are made available to people in the organization who are considered to be ‘talent’.”

Health System in Andhra Pradesh: A District-level Analysis

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Himanshu Sekhar Rout²

Abstract

Building health systems that are responsive to community needs particularly for the poor is essential. In view of the growing divergence both between and within the states, disaggregated studies are necessary for identification of the critical areas calling for policy intervention. In this connection, the article is an attempt to analyse the performance of healthcare system of Andhra Pradesh (AP) at district level by focusing on technical efficiency. The study is based on secondary data. Stochastic frontier model has been used for analysis. The results show that the efficiency of the public health delivery system remains low. Not all the districts with lower infant mortality rate (IMR) have efficient health systems. The disparities across districts in terms of availability of hospitals and primary health centres have an adverse impact on improving IMR in AP. Overcoming these disparities within the health system may lead to improvement of public health system at district level in AP. Further, reduction in IMR may be possible at a faster pace in the state if such efforts are coupled with steps to promote literacy particularly female literacy. This could make them empowered to demand for adequate health infrastructure and ensure better utilization of it in poorly performing districts.

Keywords

Health system performance, infant mortality rate, healthcare facilities, stochastic frontier model, Andhra Pradesh

Motivation

A healthcare system (HCS) is a system, framework or network of all the organizations/institutions, resources, personnel, commodities, information, technologies, research, logistic and governance strategies whose primary purpose is to establish, promote, strengthen, maintain and sustain delivery of preventive, promotive and curative health services (*goodness*) to the targeted population in a fair and equitable

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The Exigency of the Day Multi-Media in English Classes

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Abstract - The usage of Multimedia is the exigency of the day in every English class whether it is for Primary students, Secondary students or Graduate students. The present generation is anyways techno geeks. Since childhood exposed to mobile, television, radio, tape recorders/ VCR etc., The multimedia which in general sense is something that one can watch and listen. It is graphic arts, audio, sound, text, animation and many. This is usually recorded and played, accessed or displayed by some computerized and electronic devices. I definitely don't mean an English class should be a like a demonstrating hall of computers. An English class needn't get away from the traditional way of teaching completely but however where ever there is a need of technology, it has to be used.

The teaching of English based on network circumstance brings the advantage of network into full phase, and its main aim is to impart the knowledge of 'language'. Yes, the study methods and application skills might differ. Ultimately the students' interest of self-study should increase, strengthening their ability of speaking, listening and writing.

Pupils are the main body and teachers are mentors. The reason why an excellent teacher differs from a mediocre teacher is only that apart from teaching he does inspire the students and make them to achieve their respective goals.

In this paper I am going to analyze the necessity of multimedia technology in language teaching for different kind of students, the role of English teachers in its usage, the responsibility of the students, the role of school or college management and also the difficulties faced in the usage of these technologies.

Keywords – *Multimedia, Teacher, English language, technology.*

I. INTRODUCTION

The term multi-media is nothing new, it has become a part of educational system from two to three decades in Medicine and Science. Next in the form of Smart classes it has stepped into Educational system in both Colleges and Schools. But coming to the teaching of English Language it is not used in a full-fledged way.

Whatever the reason might be, English language has got a new status and face and it is understood that English language is not just a theory but practical application is also very much possible. Just in order to prevent the traditional method of teaching, some teachers put up great efforts to design flowery and fancy courseware, but they neglect the cognitive laws. They don't consider the major factors such as teaching aim, teaching object, teaching content and teaching measures. Students roam about in the courseware, and teachers press the

mouse on the platform incessantly. There is no vital distinction between such kind of class and traditional teaching; sometimes the former is proved better than the latter.

Need of Multimedia Technology in Language Teaching:

Multimedia is defined as the integration of two or more media elements with computing technology to communicate information i.e., an integration of sound, animation, still image, hypertext and video through a computer Programme. The 21st century is an information age as well as knowledge economy age. The speedy development of information technology provides us with sophisticated teaching means—multimedia. It is true that multimedia has many advantages in English teaching, such as offering more information, saving more time, stimulating students' imagination and creativity, and so on. In teaching and learning of English language, the latest technologies such as Computers, Internet, Email, Electronic Dictionary, Blogs, mobile phones etc., play a very



RESEARCH PAPER

Floristic composition of Mukurthi National Park: a sky island in the core zone of the Nilgiri Biosphere Reserve

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ABSTRACT

Mukurthi National Park is located in the core zone of the Nilgiri Biosphere Reserve. Floristic inventorisation of the National Park was conducted resulting in enumeration of 465 species of angiosperms belonging to 306 genera and 98 families. The presence of 139 endemics is a significant feature, of these 19 are in threatened categories.

KEYWORDS: Mukurthi National Park, Nilgiri Biosphere Reserve, floristics, diversity

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Introduction

The Western Ghats of India are a mountainous chain running about 1650 kilometers along the Western Coasts of India. Notwithstanding its acclaim as a biological hotspot, the Western Ghats are home to unique and one of the most isolated sky islands. Sky islands are a continental terrain of valleys and mountains where the mountains, like oceanic islands, may act as isolated cradles of evolution (Warshall, 1994; Wikramanayake et al., 2001). The Western Ghats sky islands also host a large number of endemic species. A third of all Indian plant species, half the reptiles and 75% of the amphibians are in the high elevation montane forests (Myers et al., 2000; Islam and Rahmani, 2004). This habitat hosts a disproportionately high level of endemism and is threatened by anthropogenic modifications. The montane habitats that occur on these islands between 1,400 and 2,400 m are better known as Shola habitats and are a natural mosaic of grasslands and forest patches in an undulating terrain, with forests in the valleys (Robin and Nandini, 2012).

Study Area:

In India there are 764 protected areas established, of which 103 are National Parks and 544 are Wildlife sanctuaries covering an area of 40500.13 sq.km and 118917.71 sq.km. respectively (National Wildlife Database, November, 2017) These apart, 13 Biosphere Reserves, the first being The

Nilgiri Biosphere Reserve was established in 1986 combining parts of Waynaad, Nagarhole, Bandipur, Mudumalai, Nilambur, Silent Valley and Siruvani hills. It is in the core zone of Nilgiri Biosphere Reserve that the Mukurthi National Park is located with a total area of 78.46 sq.km., extending from latitudes 11°10' to 11°22' and longitudes 76°26' to 76°34', this area in southern western ghats rises steeply to high elevations and levels off at the top to form a plateau with meadows interspersed with patches of sholas and grasslands (Figure 1). The hills are with almost uniform elevation (2400 m), the highest being Kolaribetta (2630 m). The other major peaks are Mukurthi (2556 m) and Nilgiri peak (2477 m). The general slope is towards east and south and is drained by innumerable perennial streams that finally fall into rivers Bhavani, Pykara and Kundah. The plateau slopes into Silent Valley at the South Western Corner through Sispara pass. This area is still in its pristine beauty and remains totally free from human interference. The Nilambur valley and Oucherlony valley are the other areas forming unbroken wall. At least 14 of the sacred deity hills of the Todas are located inside the park and they have played a tremendous role in protecting the area (Chabra, 2017). The National Park is a prime Tahr habitat with about 463 individuals recorded (Predit et al., 2015). The western and southern slopes of these ridges drain towards the north by the Pykara river which later joins the Moyar. There is a series of reservoirs on this river and

लोकगीतों में गाँधी: चंपारण-सत्याग्रह के संदर्भ में

डॉ. धनंजय सिंह

यह पहले गिरधारी हैं, जिनका पहनावा अजीब है। अपने दुश्मनों से लड़ने के लिए इनके पास कोई भौतिक हथियार नहीं है। ये तो एकदम भिखारी हैं। गौरतलब है कि ऐसे अजीब लिबास के लिए लोक में भोले शंकर की छवि लोकप्रिय रही है लेकिन वह एक मिथकीय चरित्र रहे हैं जबकि गाँधीजी एक इतिहास पुरुष हैं। चंपारण सत्याग्रह की सफलता उन्हें एक इतिहास पुरुष से मिथकीय चरित्र में तब्दील कर रही है। गाँधी में भी सब कुछ कर सकने की सामर्थ्य है लेकिन वे अपने लिए कुछ भी नहीं करते हैं। पूरे राष्ट्र के लिए करते हैं। यहाँ इस बात की चर्चा गैर-जरूरी नहीं होगी कि दक्षिण अफ्रीका से भारत आने के बाद गाँधीजी ने कमर तक धोती पहनने तथा कमर का ऊपरी हिस्सा उधारे-निधारे रखने का जो लिबास अपनाया, वह ग्रामीणों के पहनावे के अनुरूप था, क्योंकि तब अधिकतर किसान गर्मी-बरसात में कमर के ऊपर उधारे देह ही रहते थे।

भारतीय स्वाधीनता आंदोलन के इतिहास में चंपारण सत्याग्रह एक ऐसा मोड़ है, जिसने पहली बार आम जनता को एहसास दिलाया कि अंग्रेजी सरकार के शोषण को खत्म ही नहीं किया जा सकता बल्कि यह विश्वास भी पैदा किया कि अंग्रेजी साम्राज्य से छुटकारा भी पाया जा सकता है। इसी चंपारण सत्याग्रह ने मोहनदास करमचंद गाँधी को 'महात्मा' के रूप में पहचान दिलायी। चंपारण आंदोलन की सफलता से बिहार ही नहीं, बल्कि पूरे देश की किसान-मजदूर जनता उनसे जुड़ने लगी एवं स्वाधीनता आंदोलन में शामिल होने लगी, जिसकी आवाज देश की तमाम लोकाभिव्यक्तियों में भी दर्ज होती जा रही थी।

इतिहास साक्षी है कि 15 अप्रैल, 1917 को राजकुमार शुक्ल जैसे एक अनाम से आदमी के बुलावे पर गाँधी का अनिच्छा से चंपारण आगमन हुआ था। कहना न होगा कि चंपारण अंग्रेजों की बनायी व्यवस्था में निलहे जमींदारों से त्रस्त था। उनके अत्याचारों एवं आतंकों से मुक्ति के लिए पहले भी कई आंदोलन हुए थे लेकिन सभी विफल रहे थे। गाँधी के आगमन की खबर से चंपारण के किसान आशावान थे। क्योंकि यहाँ आने से पहले उनके कारनामों की कीर्ति लोगों तक पहुँच चुकी थी यानी गाँधी सत्याग्रह के जरिये दक्षिण अफ्रीका में जो आंदोलन कर चुके थे, उसकी सफलता से लोग परिचित हो चुके थे। उनके लिए जो महत्वपूर्ण बात साबित हुई, वह थी-चंपारण में गाँधी का जीवन व्यवहार एवं जीवन शैली। उसने लोगों के दिलो-दिमाग में श्रद्धा का भाव इस कदर भरा कि गाँधी 'महात्मा' के रूप में उभरने लगे। इस संबंध में तमाम वृतांत उन्हें सुनने को मिले। इन वृतांतों के गढ़ने में लोकगीतों ने बड़ी भूमिका निभायी अर्थात् जितनी तीव्रता से गाँधी से महात्मा बनने की ओर बढ़ रहे थे उतनी तेजी से चंपारण की किसान जनता का मनोबल भी स्वाधीनता आंदोलन की ओर अग्रसर हो रहा था। गाँव-गाँव से आजादी की छटपटाहट लोकाभिव्यक्तियों में उभरने लगी थी। चंपारण, आरा, छपरा, गोरखपुर, आजमगढ़, मिर्जापुर, बलिया, गाजीपुर, सासाराम जैसे जनपदों में ये लोकगीत आजादी की चेतना की लौ जगाने लगे थे। सन् 1917 में रघुबीर नारायण बटोहिया का गीत- 'सुंदर सुभूमि भइया भारत के देसवा से, मोर प्रान बसे

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**WOMEN
ENTREPRENEURS**



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FOREIGN DIRECT INVESTMENT IN RETAIL IN INDIA - AN ANALYSIS

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Abstract
The concept of Foreign Direct Investment is now a part of India's economic future but the term remains vague to many. It has profound effects on the economy. India is the second most attractive retail destination, globally from among emerging markets so foreign investors are curious to invest in India in so many sectors. FDI is allowed up to 51% investment in single brand retail but government is going to open the doors for Multi Brand investment. It has made India the cynosure of every foreign eye. FDI in multi brand can affect our economy by so many ways. In this paper an attempt has been made to analyse the different dimensions of FDI in multi brand retailing and its inflows in India.

Key Words: FDI, Retailing, FIPB, BPCL, GDP.

The Background of Foreign Direct Investment in Retail in India

In 1997 India allowed Foreign Direct Investment in cash and carry wholesale. At that time it required Government's approval. The approval requirement was relaxed, and automatic permission was granted in the year 2006. Between 2000 and 2010, Indian retail attracted about Rs.9,000 Crore in Foreign Direct Investment, representing a very small 1.5 per cent of total investment flow into India. Single brand retailing attracted 94 proposals between 2006 and 2010, of which 57 were approved and implemented. For a country of 120 Crore people, this is a very small number. Some claim one of the primary restraints inhibiting better participation was that India required single brand retailers to limit their ownership in Indian outlets to 51 per cent. China in contrast allows 100 per cent ownership by foreign companies in both single brand and multi-brand retail presence. Indian laws already allow Foreign Direct Investment in cold-chain infrastructure to the extent of 100 per cent. There has been no interest in Foreign Direct Investment in cold storage infrastructure build out. Experts claim that cold storage infrastructure will become economically viable only when there is strong and contractually binding demand from organized retail. The risk of cold storing perishable food, without an assured way to move and sell it, puts the economic viability of expensive cold storage in doubt. In the absence of organized retail competition and with a ban on foreign direct investment in multi-brand retailers, foreign direct investments are unlikely to begin in cold storage and farm logistics infrastructure. Until 2010, intermediaries and middlemen in India have dominated the value chain. Due to a number of intermediaries involved in the traditional Indian retail chain, norms are flouted and pricing lacks transparency. Small Indian farmers realize only 1/3rd of the total price paid by the final Indian consumer, as against 2/3rd by farmers in nations with a higher share of organized retail. About 60 per cent margins for middlemen and traditional retail shops have limited growth and prevented innovation in Indian retail industry. India has had years of debate and discussions on the risks and prudence of allowing innovation and competition within its retail industry. Numerous economists repeatedly recommended to the Government of India that legal restrictions on organized retail must be removed, and the retail industry in India must be opened to competition. For example, a report noted that an increasing number of people in India are turning to the services sector for employment due to the relative low compensation offered by the traditional agriculture and manufacturing sectors. The organized retail market is growing at 35 per cent annually while growth of unorganized retail sector is pegged at 6 per cent. The Retail Business in India is currently at the point of modulation. As rapid change with investments to the tune of Rs.12,500 Crores were being planned by several Indian and multinational companies in the next 5 years. It is a huge industry in terms of size and according to India Brand Equity Foundation, it is valued at about Rs.2,00,000 Crores. Organized retail is expected to gather about 16-18 per cent of the total retail market in the next 5 years.

1.1 Retail Sector in India

The Indian Retail Sector has primarily comprised of Unorganized Players in the form of locally owned, Grocery Shops (kirana stores), Road side Wooden Structures (paan khokha/shops), Multipurpose Stores (general stores), Hand Cart (rediwala) and Pavement Vendors (footpath) etc. On the other hand, Organized Retailing involves trading activities undertaken by licensed retailers, that is, those who are registered for Sales Tax and Income Tax. The corporate-backed Super Markets, Hyper Markets and Retail Chains and the privately owned large retail businesses are also present in India. However, the tremendous growth prospect of the sector coupled with successfully established models of organized retail in other Asian markets such as China has paved the way for the establishment of organized retail in India as well. In addition to this, a number of home-grown corporate giants such as Future Group and Aditya Birla Group have furthered the cause of organized retail by setting up exclusive outlets across India. Nevertheless, there is still a long way to go before Foreign Direct Investment in Indian Retail can be realized in its totality. Though the voices have been growing louder for Multi-Brand Foreign Direct Investment to be permitted for retail, there is still a long way to go. The Indian Government aims to take up

IMPACT OF GLOBALIZATION ON INDIAN AGRICULTURE**Mr.T.MUTYALU**

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Abstract

Globalization is an inevitable phenomenon which is advancing at a high place and affecting the economics of all countries. The process of Globalization sends the world economical, political, social, and cultural alterations. In a very simple language, Globalization of economy may be defined as the further integration of national economy into global economy in which attention is given to all aspects of the problems related to the economy. Further integration has had many effects on the production structure of national economies, the role of multinational corporations, Foreign Direct Investment, Interdependence between all Nations of this world etc. Trade is an essential part of economic development. The establishment of WTO is an important milestone in the history of international trade. India played an important role in establishment of GATT and then in establishment in WTO. India became the member of GATT in 1947 and

started to play its part and now it's an active member of WTO, the replacement of GATT, which came into effect on 1st January 1995 in Uruguay Round. India is very favor of governance of international trade which is based on international rules and regulations. It believes that trade will not only benefit its economy but will also benefit all 134 members. When developing countries were liberalizing and expanding their economies, they felt the need for better export opportunities. The W.T.O. provides opportunities to the developing countries to grow and expand their business.

Introduction

Globalization is the process of integrating the domestic economy with world economy. Globalization is the process of integrates the domestic market with world market for international trade, finance, and goods and services. Globalization makes world as a small village. The competition has become large in every field. To develop the Indian economy the government makes new policy



RECENT TRENDS OF CREATIVE ACCOUNTING PRACTICES: AN ANALYSIS

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Abstract

Financial statements/reports are the windows that depict the true and fair picture of the affairs of an enterprise. These are one of the most important ways for most business to reveal their performance and status to its stakeholders such as creditors, investors, regulators and employees. As an important means of representing the internal information to the public, the making of the statements is also desired to fulfill all the principles, regulations, standards, etc. and ideally should reflect a company's wealth and activity performance through a transparent accounting system, therefore become the right tool to a fair and true company evaluation. Corporate governance can play an important role in financial reporting of the company because financial report shows the state of affairs of the company and investors take decision on the basis of financial report of the company. So it is necessary that financial report should show "True and Fair view" of the company. But now-a-days, in order to create hype in the market, the companies are practicing some window-dressing practices. They are adopting some malpractices such as Creative Accounting. On this backdrop, the present study has been undertaken to analyze the impact of Creative Accounting Practices on the performance of a company in particular and stakeholders in general.

Keywords: Creative Accounting, Financial Statements, Stakeholders, Malpractices.

1. Conceptual Fallacy

Accounting is referred to as the language of business just as finance is branded the life blood of any organization. As a language of business, it is a process by which data relating to economic activities of an organization are classified, summarized, recorded and communicated to intended users for analysis and interpretation. The American Institute of Certified Public Accountants defined "accounting as the art of recording, classifying and summarizing in terms of money, transactions and events which are in part at least, of financial character, and interpreting the result thereof". Millichamp (1997) defines "accounting as the process of identifying, measuring and communicating economic information to permit judgments and decisions by users of the information." To satisfy this important role requires that the practice of accounting be done in uniform language and style. But in order to provide beautiful accounting information, many companies are adopting window-dressing accounting concept.

Economic development, legal and social pressure and users of information has necessitated innovations in accounts and as a result Creative Accounting has been developed especially in Anglo-Saxon economies due to the accounting profession freedoms. It sat on the edge of the legal form and economic substance of transactions and events. Accounting practices that follow required laws and regulations, but deviate from what those standards intend to accomplish. Creative accounting capitalizes on loopholes in the accounting standards to falsely portray a better image of the company. Although creative accounting practices are legal, the loopholes they exploit are often reformed to prevent such behaviors.

A primary benefit of accounting/financial statements is that they allow investors to compare the financial health of competing companies. However, when firms indulge in creative accounting often distort the value of financial information. Creative accounting can be used to manage earnings and to keep debt off the balance sheet. It is a practice whereby a company takes advantage of loopholes to show that they are more profitable or financially stable than they actually are. In many cases of creative accounting, the company is not yet breaking the law, but is most likely engaging in unethical behavior, which can lead to suspicion, audits by the government, and, in the case of fraud, finally the dissolution of a company.

While the problem of creative accounting is not new, it was one of the key themes in corporate finance and corporate governance in the 1980s. By the early 1990s, creative accounting was well and truly recognized by national and international regulators as one of their major headaches. The excesses of creative accounting had been widely reported. The challenge of creative accounting goes to the heart of business regulation, business ethics and other fields.

In the accounting aspect, "window dressing" is more likely than "Creative Accounting" to imply illegal or fraudulent practices. The techniques of creative accounting change over time due to changes in accounting standards and techniques. Many changes in accounting standards are meant to block particular ways of manipulating accounts, which means that intent on creative accounting need to find new ways of doing things. At the same time, other, well intentioned, changes in accounting standards open up new opportunities for creative accounting. Many (but not all) creative accounting techniques



MICRO INSURANCE IN THE FINANCIAL LANDSCAPE OF INDIA: AN OVERVIEW

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ABSTRACT

Risk and uncertainty are the most inevitable factors in human life, and hundreds of millions of poor rural households around the world are the vulnerable groups facing risks arising in the form of sickness, accidents, deaths or loss of assets due to natural calamities and riots etc., which have a particularly debilitating affect on the poor who are less able to financially absorb and recover from such shocks. With barely any risk-management tools such as savings or insurance, they are compelled to borrow from informal markets at very high rates of interest, getting trapped in the vicious circle of poverty. Micro insurance is a financial instrument that provides coverage to help low-income individuals hedge against various risks. Increasingly, providing the poor with access to reliable and reasonably priced insurance instruments has become viewed as an integral component of inclusive financial sectors. Micro insurance is a tool for investment, savings and as a measure of social security. It increases the livelihood of the poor where they can eat well, have good health since they wouldn't have to save as much for emergencies. On this backdrop, an attempt is made to overview the role of micro-insurance in the financial landscape of India.

Keywords: Micro Insurance, Innovations, Micro Finance, Poverty, Risk Mitigation

1. CONCEPTUAL FALLACY:

In most of the developing world, the poor are disproportionately vulnerable to risk. Whether these risks come in the form of the death of a family member, severe illness, the loss of an

**GREEN MARKETING - A NEW PARADIGM IN MODERN MARKETING:
AN ANALYSIS**

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ABSTRACT

Environmental pollution is a buzz word in today's business environment and people are much aware of the environmental issues like; global warming and the impact of environmental pollution. Environmentalism has fast emerged as a worldwide phenomenon and in the modern era of globalization, it has become a challenge for the corporate bodies to keep the customers as well as natural environment safe. Green marketing is a phenomenon which has developed particular important in the modern market and has emerged as an important concept in the world and has become an important strategy of facilitating sustainable development. On this backdrop, an attempt is made to analyze the concept, need, importance of green marketing and the current Scenario of Indian market; the social responsibility of the firms and the challenges and opportunities that have with green marketing.

Keywords:

Environmentalism, Green Marketing, Globalization, Sustainability, Environmental Marketing

1. INTRODUCTION:

Green marketing companies seek to go above and beyond traditional marketing by promoting environmental core values in the hope that consumers will associate these values with their company or brand. Engaging in these sustainable activities can lead to creating a new product line that caters to a new target market. Green marketing is the marketing of products that are presumed to be environmentally preferable to others. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, sustainable packaging, as well as modifying advertising. It is the marketing of products and services based on environmental factors or awareness. Companies involved in green marketing make decisions

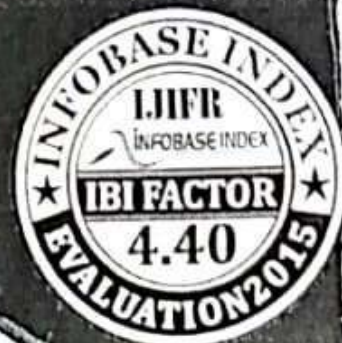
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AGRICULTURAL CREDIT IS THE LIFE-BLOOD OF INDIAN FARMERS: AN ANALYSIS

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ABSTRACT

India is an agrarian economy, having dominance in terms of generation of revenue as well as employment. About 60% population engage in agriculture in India contributes 18% of GDP whereas the developed countries get only 2% of their GDP from agriculture. About 10% of the national exports originate in this sector it shows clearly that economic growth and development of India is closely tied to the development of agriculture. In Indian economy, the agriculture sector growth is lagging behind (3.0%) in comparison to industry sector (7.1%) service sector (10%). Development of agriculture sector is vital for economic growth and development. Adequate finance is a panacea for this and hence an attempt is made to overview the role of agricultural finance in the development of agricultural sector in particular and the economy as a whole.

Keywords: Agriculture, Agricultural Credit, employment Generation, Overdues and Recoveries

1. INTRODUCTION

Agriculture plays an important role in the development of any country. It is argued that the performance of agriculture influences to a great extent the level of economic activities in the other sectors and also the overall rate of growth of an economy. According to some eminent



AN OVERVIEW ON ENVIRONMENTAL REPORTING – A NEW DIMENSION OF CORPORATE REPORTING

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"Every company should regularly report to its stakeholders on its policies and practices as regards to Environment, Social Issues, Ethics, Health and Safety."

ABSTRACT

Nowadays due to globalization, the concept of Corporate Reporting has gained utmost importance and has become a worldwide concept whereby organizations' consider the interests of stakeholders by taking responsibility for the impact of their business activities on customers, employees, shareholders communities and the economy as a whole. Corporate Reporting includes the communication about how companies understand and manage their impact on people, clients, suppliers, society, and the environment in order to deliver increased value to all their stakeholders. It is a broader concept which includes both financial and non-financial reporting. Protection of environment is one of the ethical responsibilities of a corporate unit. Hence they are responsible to protect the environment by producing pollution-free goods and are responsible to disclose the environmental facts to the concerned bodies. Now-a-days environmental reporting has become mandatory. On this backdrop, an attempt is made to overview the dimensions of Corporate reporting, especially environmental reporting for the sustainable development.

Keywords: Corporate Reporting, Environmental Protection, Globalization and Environmental Reporting



THE ROLE OF DEBT DERIVATIVE MARKETS IN THE DEVELOPMENT OF INDIA: AN ANALYSIS

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ABSTRACT

Over a decade Indian economy is facing severe financial crisis which becomes a bottleneck for the overall progress of the nation. Hence the Government of India (GOI) has focused on liberalization of monetary policies for the growth of financial market as it has been a key driver for accelerating the economic growth. As risk is an inevitable component in financial market, Debt Derivatives have emerged as an economic tool for the effective and efficient management of risk. Debt Derivative is a security that facilitates the investors to transfer their credit risk to other interested investors without any collateral security. Derivative markets are the recent innovations in financial markets globally and growth of these markets enhances financial stability. Credit Derivatives allow for buying protection on both corporate and sovereign debt and hence considered as a major component for the growth of financial sector. Though financial market innovation and globalization have provided many instruments, tools and strategies to manage risk and enhance returns, still the financial markets have become increasingly complex and competitive. On this backdrop, an attempt has been made to analyze the role of Debt Derivatives in the growth of financial markets in particular and the economy as a whole.

Keywords: Derivatives, Sovereign Debt, Risk Management, Volatility and Innovation