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CONTENTS OF MARATHI PART - I

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२९. डॉ. आंबेडकर यांचे लोकशाही विषयक विचार

प्रा. अधिकरराव निकम
राज्यशास्त्र विभाग प्रमुख, श्री. विजयसिंह यादव कला व विज्ञान महाविद्यालय, पेठवडगांव

प्रस्तावना

डॉ. बाबासाहेब आंबेडकरांचे लोकशाही संबंधीचे विचार भारताच्या राजकीय, सामाजीक आणि आर्थिक परिस्थितीच्या अवलोकनातून तयार झालेले होते. त्यांना फॅसिअम, साम्यवादी, हुकूमशाही या सारख्या सर्वकषव्यवस्था मान्य नव्हत्या, तर सर्वांच्या विचाराने चालणारी लोकषाही व्यवस्था याचे पुरस्कर्ते होते. या वेगवेगळ्या शासन व्यवस्था कमी अधिक यश प्राप्त करत असल्यातरी लोकषाही ही शासन व्यवस्था ही सर्वोत्कृष्ठ असून सर्वसामान्य लोकांच्या विचारातून, सहमतीने निर्माण होणारी लोकषाही हिच खरी व्यवस्था आहे असे स्पष्ट त्यांचे मत होते. जुलूम, जातीयता, गुलामगिरी यातून सामान्य मानसाला फक्त लोकषाही व्यवस्था मुक्त करू शकेल असे त्यांचे ठाम मत होते. लोकषाहीत लोकांच्या हाती राज्यकारभाराची अंतिम सत्ता असली तरी सर्व लोकांना राज्यकारभारात एकाचवेळी भाग घेता येत नाही, म्हणून 'प्रतिनिधीक पध्दतीच्या मार्गाने' लोक आपले मत देवून आपल्या विचाराचा सक्षम उमेदवार निवडून, त्याच्या मार्फत अप्रत्यक्ष राज्यकारभात आपला सहभाग नोंदवतात. बाबासाहेबांच्या मते लोकषाही म्हणजे निव्वळ राज्यसत्तेचा प्रकार नाही तर लोकषाही ही प्रथम सामाजिक सहजिवनाची व्यवस्था आहे. आपल्या समाज बांधवाबद्दल योग्य तो आदर, सन्मान राखण्याचा दृष्टीकोन म्हणजे लोकषाही.

भारतात विविधता मोठ्या प्रमाणात असून भारत एक राष्ट्र व्हायचे असेल तर सर्व घटकांना एकत्र असणारी विचारसरणी ही फक्त लोकषाहीच्या मार्गाने निर्माण होऊ शकेल. डॉ. आंबेडकरांना फक्त राजकीय लोकषाही अभिप्रेत नसून त्यांच्या मते जेथे आर्थिक व सामाजिक लोकषाही नाही तेथे राजकीय लोकषाही यषस्वी होऊ शकत नाही, समतेचे दुसरे नांव लोकषाही होय. स्वातंत्र्य, समता, बंधुता, आर्थिक समानता ही मानवाच्या आयुष्यातील महत्वाची तत्वे होय. राजकीय स्वातंत्र्या बरोबर सामाजिक, आर्थिक, समानताही तितकीच महत्वाची आहे. या त्रयीवर आधारलेला समाज निर्माण करणे हे बाबासाहेबांचे ध्येय होते. लोकषाहीची कास धरल्यास निष्चित भरभराट होईल आणि नाते तोडले तर विनाष झाल्या शिवाय राहणार नाही.

दारिद्रय, निरक्षरता, विषमता, जातीयवादी, विचार हा खरा लोकषाही वाटचालीतील अडथळा होय. जो पर्यंत या दोषाचे निराकरण होत नाही तोपर्यंत खरी लोकषाही अस्तित्व येऊ शकत नाही. प्रबळ सत्ताधारी वर्ग, राजकीय घराणेषाही, विभुतीपुजा, पारंपारीक समाजरचना, अल्पसंख्यांकांचे बहुसंख्याकडून शोषण हे लोकषाहीस मान्य नाही.

खरी लोकषाही अस्तित्वात येण्यासाठी समाजातील पद दलित, अडाणी, विकासापासून वंचित असलेला समाज यांचा सत्तेतील सहभाग वाढला तरच खरी लोकषाही अस्तित्वात येईल. फक्त एकव्यक्ती एक मताचा द्वारे लोकषाही निर्माण होऊ शकत नाही तर, एकमेकाबद्दल आदर, समानता, बंधूभाव ही तत्वे आचरणाणे लोकषाही यषस्वी होऊ शकेल. लोकषाहीत मिळणारा मताचा अधिकार जर आर्थिक, सामाजिक विषमता असल्यास तो

कवडीमोल ठरेल. डॉ. आंबेडकरांच्या मते सामाजिक, आर्थिक, लोकषाही प्रथम यषस्वी झाल्यास राजकीय लोकषाही यषस्वी होईल.

संसदिय लोकशाही

डॉ. आंबेडकरांनी लोकषाही व्यवस्थेचा पुरस्कार करत असताना. अमेरिकेतील अध्यक्षीय शासनपध्दती नाकारून इंग्लंडच्या संसदीय शासन पध्दतीचा पुरस्कार केला, त्यांच्यामते इंग्लंडच्या संसदीय शासन पध्दतीला 800 वर्षाचा इतिहास असून ती हळूवारपणे विकसीत होत असताना दिसते. संसदीय व्यवस्था भारतासारख्या खंडप्राय व वैविध्यता असणा–या देषाला योग्य ठरू शकेल. संसदीय लोकषाही ही व्यक्तिच्या अंगी आत्मनिर्भरता, उपक्रमषिलता, जबाबदारी यांची जाणिव करून देते. संसदीय लोकषाही मानवी जीवनाच्या प्रवाही स्वरूपाषी सुसंगत ठरते. कारण रक्तपात न घडविता सामाजिक आणि आर्थिक, राजकीय क्षेत्रात बदल घडवून आणताना विविध मुद्दे, मनमोकळ्या चर्चा, सर्व सहमती इ.चा विचार घेण्याची तरतूद फक्त संसदिय शासन पध्दतीत असते. लोकषाहीत अहिंसक, घटनात्मक शांततापूर्ण मागणी विचारविनीमय होत असतो.

संसदीय शासन पध्दतीमध्ये सर्व घटकांना सर्व वर्गास सामावून घेण्याची ताकद असते. विरोधी पक्ष, वृत्तपत्रे, मुक्त निवडणूका ह्या आवष्यक असून सत्ताधारी राजकीय पक्षा इतकीच भुमिका विरोधी राजकीय पक्षास पार पाडावी लागते. सत्ताधारी पक्षास हुकूमषाही पासून दूर ठेवणे, योग्य विचारसरणी पर्यंत पोहचवणे. नागरीकांना सत्ता बदल अधिकार असल्याने अहिंसक मार्गाने परिवर्तन होत असते. डॉ. आंबेडकरांच्या मते हिंसा, रक्तरंजीत क्रांती याद्वारे होणारे बदल हा चिरकाळ टिकू शकत नाही. हिंसाही हिंसेला जन्म देते, तर अहिंसक मार्गाने होणारे परिवर्तन हेच खरे परिवर्तन होय. हे फक्त लोकशाहीतच होऊ शकते. संसदिय लोकषाहीत घडून येणा–या घडामोडी नेहमी संथगतीने होताना दिसतात. लगेच घडून येणा–या परिवर्तनापेक्षा संरचनात्मक परिवर्तन हे दिर्घकालीनदृष्टीने योग्य असते. जनतेकडून जरी या व्यवस्थेवर टिका झाली तरी संसदीय लोकषाही व्यवस्था योग्य प्रकारे वाटचाल करू शकेल.

कायदा

कायद्याला लोकषाहीत महत्वाचे स्थान आहे. कायदा हा सर्वांसाठी समान, हितकारक, मानवी असला पाहिजे. तो जुलमी असता कामा नये. कायदा हा मानव निर्मीत असल्याने तो परिस्थितीसापेक्ष, परिवर्तनीय असणे आवष्यक आहे. कायदा हा घटनात्मक लोकषाहीत तयार होणे आवष्यक आहे. कायद्याने सगळे प्रष्न सुटतील असे म्हणणे योग्य नाही. माणसांच्या नैतिक आचरणावर कायद्याचे भवितव्य अवलंबून असते.

राजकीय पक्ष

डॉ.आंबेडकरांच्यामते लोकषाहीचा निकोप वाढीसाठी संघटीत, षिस्तबद्द, राजकीय पक्षांची अत्यंत आवष्यकता असते. टिका, सहमतीतून लोकषाहीची वाटचाल होत असते. प्रबळ विरोधी राजकीय पक्ष हा लोकषाहीत महत्वाचा घटक असतो. सत्ताधारी व विरोधी राजकीय पक्ष हे लोकषाही रथाची दोन चाके आहेत.

सत्तारूढ पक्षांने बहुमताच्या आधारे हुकूमषाही प्रस्थापीत न करता सर्वपक्षांना विचारात घेऊन समाज हिताची भुमिका पार पाडणे आवष्यक आहे. तर विरोधी पक्षाने सतत संघर्ष, टीका, स्थगण प्रस्ताव, प्रक्षोभक भाषणे, सभात्याग या मार्गाचा योग्य प्रमाणात वापर करावा नाही तर हे मार्ग लोकषाहीस घातक ठरू शकतात. लोकमताचा अविष्कार,

प्रत्यक्षीकरण ही भुमिका राजकीय पक्षांना पार पाडावी लागते. राजकीय पक्षानी आपल्या उत्तरदायित्वचा विसर पडू देऊ नये नाही तर त्याचा परिणाम लोकषाही अस्तित्वावर होऊ शकतो.

सारांश

डॉ. आंबेडकरांनी लोकषाहीचे रूपांतर सामाजिक, आर्थिक समतेत करताना घटनात्मक मार्गाची आग्रही भुमिका मांडली. आज जागतीक राजकारण आणि विविध देषांची व्यवस्थांचा अभ्यास करताना भारताची लोकषाही व्यवस्था आज दिवसें दिवस प्रगल्भपणे वाटचाल करताना दिसते. समाजातील विषमता, भेदभाव, प्रादेषिक, भाषिक संघर्ष आज आपणास भेडसावताना दिसतात. पण या सर्वांना नियंत्रीत करण्याची व्यवस्था म्हणून लोकषाही व्यवस्थेकडे पाहिजे जाते.

संदर्भ

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10285 respectively. Insect care shed unskilled labour wage grant is Rs. 42813 and Insect care shed skilled labour wage grant is Rs. 49050.

It is clear that Maharashtra government through MGNREGA provides total grant in sericulture business in per one acre is Rs. 290675 out of Rs. 180705 in first year second year grant is Rs 59485 and third year grant is Rs 50485.

Conclusion

Maharashtra government collaborated with MGNREGA scheme to our ministry of silk and sericulture in year 2015.In sericulture business total 682 man days employment created in three years duration it means continuously 3 labours worked at per acre. Under this scheme MGNREGA and department of silk and sericulture government of Maharashtra proved grant of employment generation in sericulture business. Total grant of sericulture business in per acre is Rs. 290675 out of Rs. 180705 in first year, second year grant is Rs 59485 and third year grant is Rs 50485. MGNERAG scheme an important role in employment generation and promotion of sericulture business in Maharashtra.

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Review of MGNREGA through promotion of sericulture business in Maharashtra

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Abstract

MGNREGA is an ambitious scheme providing employment to rural people of India. The basic aim of Mahatma Gandhi National Rural Employment Guarantee Act is to enhance livelihood security of household in rural area. By this scheme Govt. gives assurance of employment to unskilled rural labourer for 100 days. With better implementation such type of scheme may be an effective weapon to fight against poverty. It also aims at transforming the rural areas by improving the socio-economic conditions of people. Rural economy is the back-bone of Indian economic development. Providing employment to rural households will certainly boost the economy. It increases demand for goods and services. In this article an effort has been made to analyse the review of MGNREGA through promotion of sericulture business in Maharashtra. The core objectives of present study are to study Criteria of beneficiary workers of MGNREGA scheme and to assess the employment generation under MGNREGA through sericulture business. Maharashtra government collaborate with MGNREGA scheme to our ministry of silk and sericulture in year 2015.In sericulture business total 682 man days employment created in three years duration it means continuously 3 labours worked at per one acre. Under this scheme MGNREGA and department of silk and sericulture government of Maharashtra proved grant of employment generation in sericulture business total grant of sericulture business in per acre is Rs. 290675 out of Rs. 180705 in first year second year grant is Rs 59485 and third year grant is Rs 50485. MGNERAG plays an important role in employment generation and promote of sericulture business in Maharashtra.

Introduction

The Central Government formulated the National Rural Employment Guarantee Act (NREGA) in 2005, a model shift from previous programmes. With its legal framework and right-based approach, NREGA provides employment to those who demand it- an exclusive feature, which differentiates it from routine schemes. Notified on September 7, 2005, it was formally launched by Dr. Manmohan Singh and by the United Progressive Alliance Chairperson Smt. Sonia Gandhi at Bandlapalle Village in Ananthpur District of Andhra Pradesh on February 2, 2006. NREGA aims at enhancing livelihood security by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. The Act covered 200 districts in its first phase, implemented in 2006 and was extended to 130 additional districts in 2007-2008. All the remaining rural areas have been notified with effect from April 1, 2008. This Programme was formerly known as National Food for Work Programme. Again the Government of India (GOI) on 2nd October, 2009 renamed its flagship Rural Job Guarantee Programme- the National Rural

farmer may be considered in accordance with Para 2.i) of Ministry of Rural Development circular No. 11060/3/2009-NREGA, dated 1st September 2009.

8. Every cluster will be treated as a MGNREGA project for the purpose of :
   a) Giving a unique work ID
   b) Entry in Works and Asset register
   c) Social Audit by Gram Sabha
   d) Evaluation by Vigilance and Monitoring Committee
9. Each GP will maintain a complete list of all clusters with member beneficiaries with their job card number and activities related to plantation development carried out by the clusters under MGNREGA or otherwise. In the asset register, the break-up of the assistance/subsidy utilized form CDP/other sources, beneficiary's own contribution, and the expenditure form MGNREGA will be shown separately.

Employment generation under MGNREGA in sericulture business per acre

Maharashtra government collaborated with MGNREGA scheme to our ministry of silk and sericulture in year 2015. Under this scheme MGNREGA, and department of silk and sericulture government of Maharashtra proved grant for employment generation in sericulture business in different type of work per acre shows in following table.

Table 1

Employment generation under MGNREGA in sericulture business per acre

Sr. No.	Particulars	Work days		
		First Year	Second Year	Third Year
1	Cultivation of land	16	00	00
2	Spreading of Bio fertilizer	08	08	08
3	Formation and weeding of Basin	34	00	00
4	Plantation of mulberry	20	00	00
5	Maintenance of pruning and dinging	90	15	15
6	Irrigation	30	30	30
7	Spreading of organic fertilizer	18	10	10
8	Spraying of biotic and mulberry nutrients	10	08	08
9	Trimming of mulberry	04	04	04
10	Cutting leap	02	04	04
11	Root trimming	18	29	29
12	Shed disinfection	02	06	06
13	Nurturing of Choci insect	07	21	21
14	Nurturing of Adult insect	21	63	63
15	Composting wage	02	02	02
	Total	**282**	**200**	**200**

Source: Information booklet Government of Maharashtra

Table shows that Employment generation under MGNREGA in sericulture business per acre. In this table per acre MGNREGA scheme occupied labour in first three year in sericulture business in different type of work. In the first year cultivation of land occupied labour is 16 man work days. Spreading of bio fertilizer occupied labour is 08 in first year, second year and third

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२४. इलेक्ट्रॉनिक मीडियाची राजकीय प्रचारामधील भूमिका

प्रा. प्रभुदास आनंदराव खाबडे
श्री. विजयसिंह यादव कला व विज्ञान महाविद्यालय, पेठवडगाव.

प्रस्तावना

प्राचीन काळापासून मीडियाचा वापर राज्यकर्त्यांकडून प्रचारासाठी होत आलेला आहे –प्राचीनकाळे संदेश पोहोचवण्यासाठी राज्यकर्ते कबुतर, धावपटू, घोडेस्वार, यांचा वापर करत प्राचीन ग्रीक मध्ये राज्यकर्ते आपला संदेश लोकांच्यापर्यंत पोहोचवण्यासाठी धावपटूंचा वापर करत, पण विज्ञान, तंत्रज्ञानाचा विकास झाला त्याबरोबर राज्यकर्त्यांकडून त्या त्या काळातील माध्यमांचा वापर प्रचारासाठी केला –भारतातही या माध्यमांचा वापर प्राचीनकाळापासून राज्यकर्त्यांकडून करण्यात आला–स्वातंत्र्यपूर्वकाळापासून ते 1980 पर्यंत भारतात मीडियाची भूमिका हि माहितीचे वितरण करणे– अभिव्यक्ती स्वातंत्र्यात सरकार कपात करत असेल तर त्या प्रयत्न विरोधामध्ये संघर्षकरणे, माध्यमांचे महत्त्व व श्रेष्ठतव स्थापन करणे ही असल्याचे दिसून येते– 1985 पासून मीडियाची भूमिका थोडी बदलली आकाशवाणी, दूरदर्शन यांना दूरदर्शनचे महानिदेशक भास्कर घोष यांच्या प्रयत्नामुळे आणि विश्वनाथप्रताप सिंग यांच्या राष्ट्रीय मोर्चा सरकारने प्रसारभारती विधेयक पास करून मर्यादित स्वातंत्र्य दिले– 1990 च्या दशकानंतर भारतातील इलेक्ट्रॉनिक मीडियाचे रूप बदलले उदारीकरण खाजगीकरण आणि जागतिकीकरण यामुळे मीडियाच्या क्षेत्रांमध्ये खाजगी एजन्सीला परवानगी मिळाली– 1995 मध्ये भारतात इंटरनेटची सुरुवात झाली मोबाईलफोन भारतात आले व मोबाईलफोनने मीडियाची व्याप्ती एवढी वाढवलेली आहे की या व्याप्तीत सार्वजनिक जीवनाची सर्व क्षेत्रे आलेली आहेत– याला मीडिया स्पेअर स्थितीचे नाव दिलेले आहे–मोबाईलफोनमुळेव्हाट्सएप, इंस्टाग्राम, फेसबुक, ट्विटर, टीव्ही चॅनेल यांचा वापर मोठ्याप्रमाणामध्ये होत आह`राज्यकर्तेही या इलेक्ट्रॉनिक मीडियाचा वापर करून आपली भूमिका मांडताना दिसतात– 2014 पासून तर या इलेक्ट्रॉनिक मीडियाचा प्रभाव एवढा वाढलेला आहे की माहितीप्रसारण करण्याचे काम करणारा हा घटक राज्यकर्ता कोण असावा हे ठरवण्या इतपत प्रभावी झालेला आहे–

हे नरेंद्र मोदींच्या 2014, 2019 च्या लोकसभा निवडणुकांच्या उदाहरणावरून पाहायला मिळते– म्हणजे आज मिडिया किंगमेकरच्या भूमिकेत असल्याचे पाहायला मिळते–

उद्देश

1. इलेक्ट्रॉनिक माध्यमांचा राजकीय प्रचारामधील सहभागाचा अभ्यास करणे.
2. इलेक्ट्रॉनिक माध्यमांचा सरकार निर्मितीसाठी पोषक वातावरणनिर्मितीच्या कार्याचा अभ्यास करणे

गृहीतक

१. भारतात राजकीय प्रचारासाठी इलेक्ट्रॉनिक माध्यमांचा वापर केला जाता
२. इलेक्ट्रॉनिक माध्यमे सरकारनिर्मितीसाठी पोषक वातावरण निर्मिती करतात.

निवडणुका जिंकल्यावर आपल्या विजयात सोशल मीडियाची भूमिका महत्त्वाची होती. असे ट्विट केल्याचे दिसते. 2019 च्या लोकसभा निवडणुकीतही मोदींनी व भाजपाने अतिशय बेमालूमपणे इलेक्ट्रॉनिक मीडियाचा वापर केल्याचे दिसते.त्यामुळेच अनेक आघाड्यावर सरकारची कामगिरी फारशी चांगली नसतानाही 2014 च्या निवडणुकापेक्षा 2019 च्या लोकसभा निवडणुकीत भाजपाला अधिक जागा मिळाल्या. 2014 चा लोकसभा निवडणुकीपासून इलेक्ट्रॉनिक मीडियाचा वापर वाढला आहे त्यानंतरच्या सर्वच निवडणुका मध्ये राजकीय पक्षांनी वाररूम मधून सोशल मीडिया फोकस केला आहे. यामध्ये भारतीय जनता पक्ष अधिक सक्रिय असल्याचे दिसते. 2014 च्या निवडणुकीत अत्यंत आक्रमक प्रचार करून वातावरण निर्मिती करण्यात या वॉर रुमचा मोठावाटा होता. 2019 च्या लोकसभा निवडणुकीमध्येसुद्धा या वॉर रुमणे मोदींना सत्ताप्राप्तीपर्यंत नेऊन ठेवले भाजपच्या नरिमन पॉइंट येथील प्रदेशकार्यालयातून वॉर रूमचे कार्य चालते.पक्षाच्या बाजूनेकिंवा विरोधात सुरू असलेल्या घडामोडींचे विश्लेषण केलेजाते. पक्षाच्या विरोधात खोटा प्रचार सुरू असेल तर तत्काळ त्याचे खंडन करण्याचे काम युद्धपातळीवर होते. सरकारने राबवलेल्या योजना लाभार्थींचे क्लिप तयार करून मतदारांपर्यंत पोहोचवणेही कामे वॉर रुम करत असते. रावसाहेब दानवे यांच्या विरोधात एक व्हिडिओ क्लिप व्हायरल झाली होती. या क्लिपच्या खंडन करून वस्तुस्थिती मांडणारे क्लिप पुढल्या पंधरा मिनिटात सोशल मीडियावर भाजपने आणली होती. वॉर रूममध्ये व्हाट्स अप आणि फेसबुकवर प्रतिस्पर्धी उमेदवार किंवा पक्ष विरुद्ध कोणता मेसेज फिरवता येईल याविषयी बरीच चर्चा होते.त्याचा अभ्यास केला जातो माहिती मिळवली जाते.आणि त्यानंतरच लोकांच्या मनाला भिडेल असा मेसेज तयार केला जातो. मग तो सोशल मीडियावरती अपलोड केला जातो. यामध्ये टीव्हीचा वापर भाजपने मोठ्या प्रमाणात केलेला दिसतो. भाजपतर्फे अरे कुठे नेऊन ठेवलाय महाराष्ट्र माझा छत्रपतींचा आशीर्वाद चला मोदींना देऊया साथ आशयाच्या विविध जाहिरातींचा मारा सुरू होता.राष्ट्रवादी कॉंग्रेसपडूनही मी राष्ट्रवादी महाराष्ट्रवादी माझे मत ना राष्ट्रवादीलाच अशी जाहिरात सुरू केली आहे. कॉंग्रेसकडून कॉंग्रेसमुळेच महाराष्ट्र पहिला अशी संगीतमय जाहिरात सुरू करण्यात आली. शिवसेना मनसे या प्रमुख राजकीय पक्षांकडून आपल्या वेबसाईटच्या माध्यमातून प्रचार केला. भाजपच्या वेबसाईटवर पक्षाचेविजन दिवंगत गोपीनाथ मुंडे यांच्यासह सर्वच बड्या नेत्यांच्या भाषणाच्या व्हिडिओ क्लिप लेख प्रसिद्धी पत्रके असा माहीतीचा खजिना टाकून मतदारांना अधिकाधिक प्रभावित केल्याचे दिसून येते. मनसेने आपल्या ब्लूप्रिंटसह महाराष्ट्राचा विकास आराखडा वेबसाईटवर प्रसिद्ध केला.शिवसेनेनेही आपले विजन डॉक्युमेंट्स प्रसिद्ध करण्यासह मुंबईतील करून दाखवले चा जोरदार प्रचार केला. राष्ट्रवादीने आपला जाहीरनामा प्रसिद्ध करण्यासह ठिकाणचा सभा आणि त्यातील प्रमुख नेत्यांच्या भाषणाच्या व्हिडिओ क्लिप प्रसिद्ध करण्याचा सपाटा लावला आहे कॉंग्रेसकडून मात्र म्हणावा तेवढा इलेक्ट्रॉनिक मीडियाचा प्रभावी वापर होत असल्याचे दिसत नाही

या दोन्ही निवडणुकातुन हे दिसून येते की मतदार व नागरिकावर इलेक्ट्रॉनिक मीडियाचा प्रचंड प्रभाव आहे. विचारशक्तीला गौणस्थान मिळताना दिसते हे लोकशाहीला मारक ठरणारी गोष्ट ठरू शकते.

संदर्भ

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Retelling Fairytale: A Contextual Study of SunitiNamjoshi's 'Aditi Adventures: Unexpected Monsters'

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Shri. Vijaysinha Yadav Arts & Science College, Peth Vadgaon Kolhapur

Namjoshi was born in Mumbai, India, in 1941, in a highly influential Chitpavan Brahmin family of Pune. Her doctoral research prompted her for serious preoccupation with the question of reality. Her career and creative life got completely changed when she came under the influence of the Feminist and Gay Liberation movements which enabled her to define and manifest her beliefs and inner urges. She emerged as poet, feminist, fabulist, children's writer and playwright.

Suniti Namjoshi's deep love for fable writing is continued in the unique contemporary series, 'The Aditi Adventures Series,' written for children. The stories are characterized with gentler tone questioning imagination that startles the young reader. Her 'Aditi Adventures : Unexpected Monsters' comprises 'Aditi and Her Friends take on the Vesuvian Giant' (2007), 'Aditi and her Friends help the Budapest Changeling' (2007), and 'Aditi and her Friends in search of Shemeek' (2008).

In these series, Aditi and her friends encounter many adventures and always prove victorious because they work together as a team and they use their magical tools, employing common sense and bravery. The stories are a cross between a traditional fairytale, fables of 'Panchatantra' with a bit of 'Harry Potter' style magical adventures. It juxtaposes fairytale dragons with modern technology in the most unselfconscious way. Questions of identity, perception and power have always preoccupied her mind. But when it comes to children's writing, this is done in a subtle and unobtrusive manner. The use of fantasy in subversive fiction is a vehicle of satirical attack on the marginality of women. Her reinvention of myth and delineation of theme illustrate her remarkable craftsmanship. Namjoshi pokes fun at human pretensions,

confidence about the future of herself.

In this way, Namjoshi presents human, nonhuman and legendary fantastic characters. They employ their magical abilities and intellectual powers to overcome the difficulties. She reinvents the images of the legendary monsters. The metamorphosis creatures such as the Hangchang are the symbolic figures as they point out that identity is neither fixed nor absolute. C. Vijayasree, the well-known Indian English critic, comments on the perspectives of her magic characters as she registers her opinion as follows:

Namjoshi's tales and fables are populated with mythological and animal "monstrous" creatures. Drawing upon affinities between the human and nonhuman worlds, she foregrounds hitherto "evident" figures, turning them into autonomous subjects and having them tell their tales in their own distinct ways (Vijayasree :133).

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Mythical Significance of Festivals in Human Life

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Abstract:

Festivals impart age-old customs, traditions, rituals, ceremonies, and ideologies to the present social life. They retell the mythological heritage with new perspective. The present paper is a modest attempt to explore the mythical background of select festivals celebrated especially in India and other parts of the world.It also discusses the mythical significance of festivals in human life.

***Keywords:** Myth, Festivals, Pharao, Mythologist, Asura, Yaksha, Rakshas.*

Festivals are celebrated in all societies and religious communities on a particular day or period. They manifest the cultural, social, mythical, and religious life. They are meant for the celebration of glorious heritage, traditions and customs, and ethnic culture. The festival reflects the environment of cultural harmony and the bond of love. It allows free mingling of moral, social, and ethical values in the form of an entertainment. It also permits to rejoice special moments and emotions with social responsibilities. Festivals are traditional vehicles to pass age-old traditions, collective knowledge, and the regional myths and legends. They are connected around the world with nature and culture. In every culture and society, festivals are associated with mythological values, retold or restructured for the welfare of humanity. They comprise certain rituals and ceremonies to be enacted to please the local deities or natural forces that ensure prosperity and security. Every myth continues in the form of festival.

So we may say that a myth is typically a traditional sacred story of anonymous authorship and archetypal or universal significance which is recounted in a certain community and is often linked with a ritual; that it tells of the deeds of superhuman beings such as gods, demigods, heroes, spirits or ghosts; that it is set outside historical time in primal or eschatological [i.e. last, ultimate] time or in the supernatural world, or may deal with comings and goings between the supernatural world and the world of human history; that the superhuman beings are imagined in anthropomorphic [i.e. humanly formed] ways, although their powers are more than human and often the story is not naturalistic but has the fractured, disorderly logic of dreams; that the whole body of a people's mythology is often prolix [i.e. lengthy, wordy], extravagant and full of seeming inconsistencies; and finally that the work of myth is to explain, to reconcile, to guide action or to legitimate. We can add that myth-making is evidently a primal and universal function of the human mind as it seeks a more-or-less unified vision of the cosmic order, the social order, and the meaning of the individual's life. Both for society at large and for the individual, this story-generating function seems irreplaceable. The individual finds meaning in his life by making of his life a story set within a larger social and cosmic story. (W.C.:29)

From time immemorial, the man has longing to celebrate together as a group. Consequently, some of the oldest festivals on earth coincide with certain and special phenomenon of nature. Festivals in ancient Greece and Rome were significant periods of time as they project the activities of the people transcending them beyond the physical world towards the superhuman world through their communication. Those festivals were marked by a variety of unique and uncommon cultural rituals and traditions. It included processions, sacrifices, athletic events, and musical performances. Festivals earmark the parallel existence of religion and nature. It celebrates both forces playing the pivotal role in human life.

According to Frazer, at the early, magical stage of thinking, nature is conceived as an impersonal force, to be manipulated. As magic becomes religion, nature takes on the form of anthropomorphic deities, who must be allowed full scope to exercise their powers. Everything comes to hinge on guaranteeing the god his fertility. The residual logic is twofold. By 'sympathetic' magic, the death and revival of the god parallels or, to put it more strongly, causes the renewal of the land.(M.: 15)

The Sed festival of an ancient Egyptian tradition or autumn festival of Durga Puja of India is a ceremony celebrated by the people with different types of sacrifices. The Sed festival is one of the ancient festivals of Egypt. It was resumed to replace a ritual of murdering a pharaoh, monarch of an ancient Egypt, who was misfit to throne due to his age or condition.Joseph Campbell, well-known mythologist, describes it as follows:

Thus, festivals of different types such as national, religious, social, cultural, literary etc., celebrate national glorious history, rich culture, ideologies, mythical stories, ethnic and indigenous identities etc. It gives an opportunity to express deeply rooted feelings and emotions catering to the social balance.

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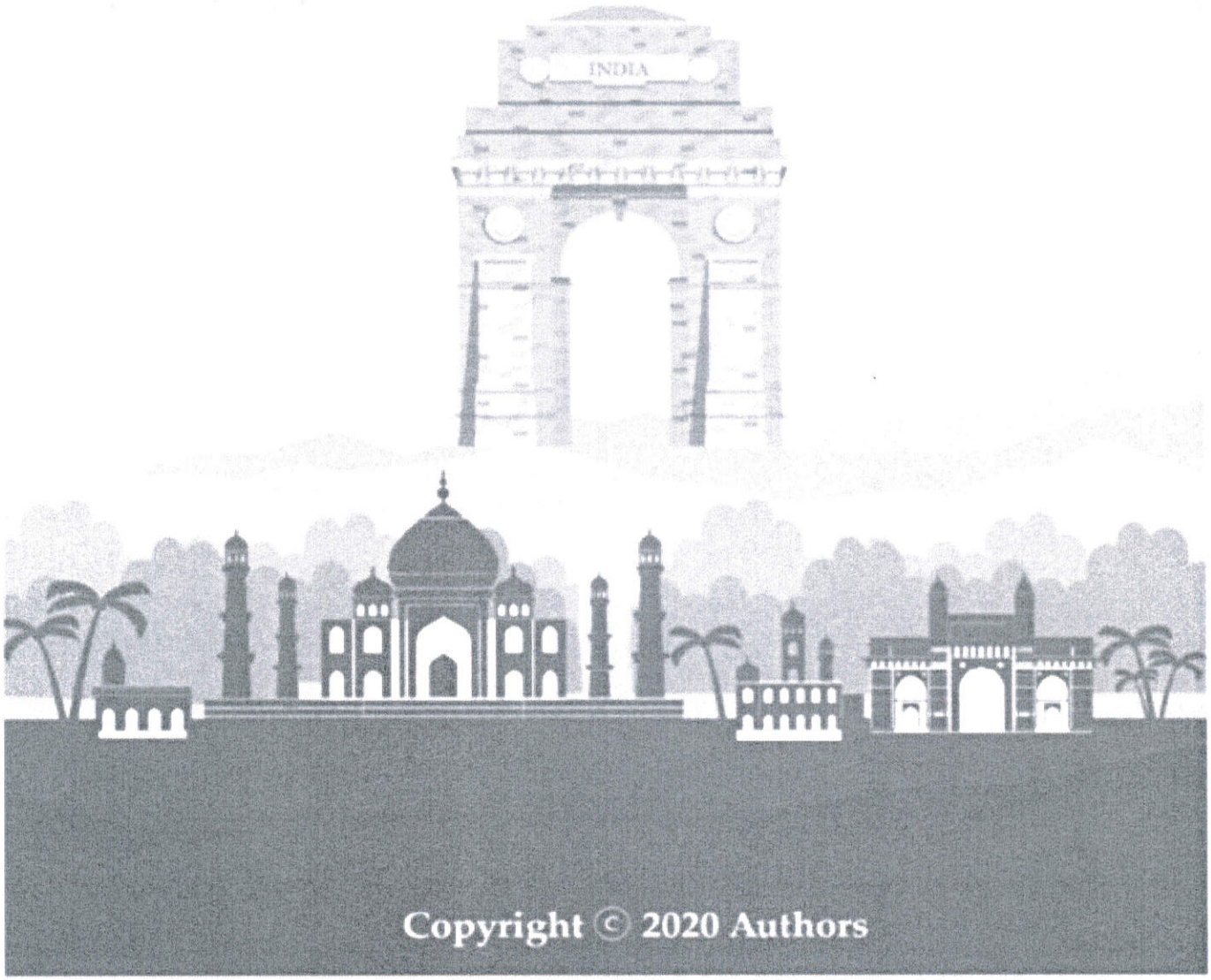

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An Innovative Way For Bio Waste Management: Formulation Of Fish Feed From Chicken Waste.

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ABSTRACT

The present study was carried out to formulate low cost fish feed by using chicken waste i.e. skin of chicken, which is an innovative way for bio waste management. The preliminary survey reveals that Peth Vadgaon of Hatkanangale tahasil in Kolhapur district has 12 chicken shops which create poultry waste as major environmental problem. The chicken waste is rich in Protein, fat and mineral like calcium and phosphate which can be judiciously exploited for conversion of fish feed. The fish feed was formulated by using skin of poultry along with other ingredients. Thus converting poultry waste into fish feed.

Key Words: Poultry Waste, Formulation of Fish Feed.

Introduction:

Peth Vadgaon has historical and geographical importance as it is one of the famous market place for nearby thirty two villages in Hatkanangale tahsil of Kolhapur District. It is known for Cattle market, Grocery and Vegetable market, Cloths market, Fish, Chicken and Mutton Shops. The excessive sale of Fish, Chicken and Meat creates a large amount of slaughter house waste. This is collected by Vadgaon Municipal Corporation and dumped in a dumping area. The owners of chicken shops also dispose it to the nearby area which ultimately creates an environmental problem. Decomposition of this material spreads bad odor resulting in nausea. It is also responsible for increased nuisance of street dogs.

The small slaughter plants or houses generates blood, intestinal content, head, lower feet, feathers, and waste water are all considered as waste. They does not have a waste water treatment, hence it is released in to the public waste water system like rivers, sewage system, septic tank. Poultry slaughter (Chicken Shop) by-products, such as blood and small

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Vol-68-Issue-34

February-2020

b. The supplementary feeding can bridge the gap between available natural feed and requirement of fish.

c. Formulated fish feed can enhance the growth and disease resistance in culture fish.

Objectives:

The objectives of the proposed project are as follows

a) Fish feed formulation by using waste of poultry.

b) To study the efficacy of formulated fish feed and comparison with other available fish feeds

Material and Methods:

Study Area: Peth vadgaon is located on north side of Warana river. It has a Mahalakshami reservoir constructed by His Highness Shrimant Shahu Maharaja of Kolhapur for drinking and irrigation purpose. Now days this reservoir is used by the local fisherman for aquaculture practice. Nearby villages also have few commercial aquaculture ponds.

The laboratory experiments will be conducted in the Laboratory of Department of Zoology, Shri Vijaysinha Yadav Arts and Science College, Peth Vadgaon. It is well equipped laboratory. The field trials of formulated fish feed will be carried out in commercial aquaculture ponds in nearby area.

Methodology:

A. Formulation of Traditional and Chicken Shop Waste fish feed

1. Dissimilar sizes of ingredients results in an unstable pellet. All the ingredients will be ground using a grinder or mortar and pestle. A sieve can also be used to remove large particles or foreign material like stones, pieces of metal etc that can damage instruments.
2. The ingredients will be weighed or measured especially for the micro-nutrients (vitamin and mineral premixes) as these are used in very small quantities and are very expensive.
3. All ingredients will be mixed thoroughly. The dry ingredients can be mixed in a mixer. Good mixing can also improve palatability.

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Vol-68-Issue-34

February-2020

Poultry waste can be judiciously exploited for the preparation of fish feed. It is user-friendly, eco-friendly and economical as compared to available fish feed in market. Thus, solving the problem of waste of poultry we have prepared the Value Added Product for aquaculture.

The fish feed formulation method is eco-friendly and user friendly so it can be adopted by local fish farmers. The fish feed will be *cost effective.* It can also provide *employment* to youth.

Table No. 1. Ingredients used and its percentage for the Formulation of Fish Feed.

Sr. No.	Ingredients Used	Nutrient Level				Percent Used
		Moisture	Protein	Fat	Carbohydrate	
1	Soya Meal	9.13	39.08	2.61	44.34	24
2	Groundnut Cake	10.13	44.21	8.20	31.84	26
3	Wheat Flour	9.01	11.12	1.48	77.55	09
4	Rice Bran	1.10	6.47	3.53	31.84	08
5	Chicken Waste	36	22	9.5	28.21	30
6	Minerals	--	--	--	--	01

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Vol-68-Issue-34

February-2020

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Plate No. 1. Formulated Fish Feed

Conventional Fish feed

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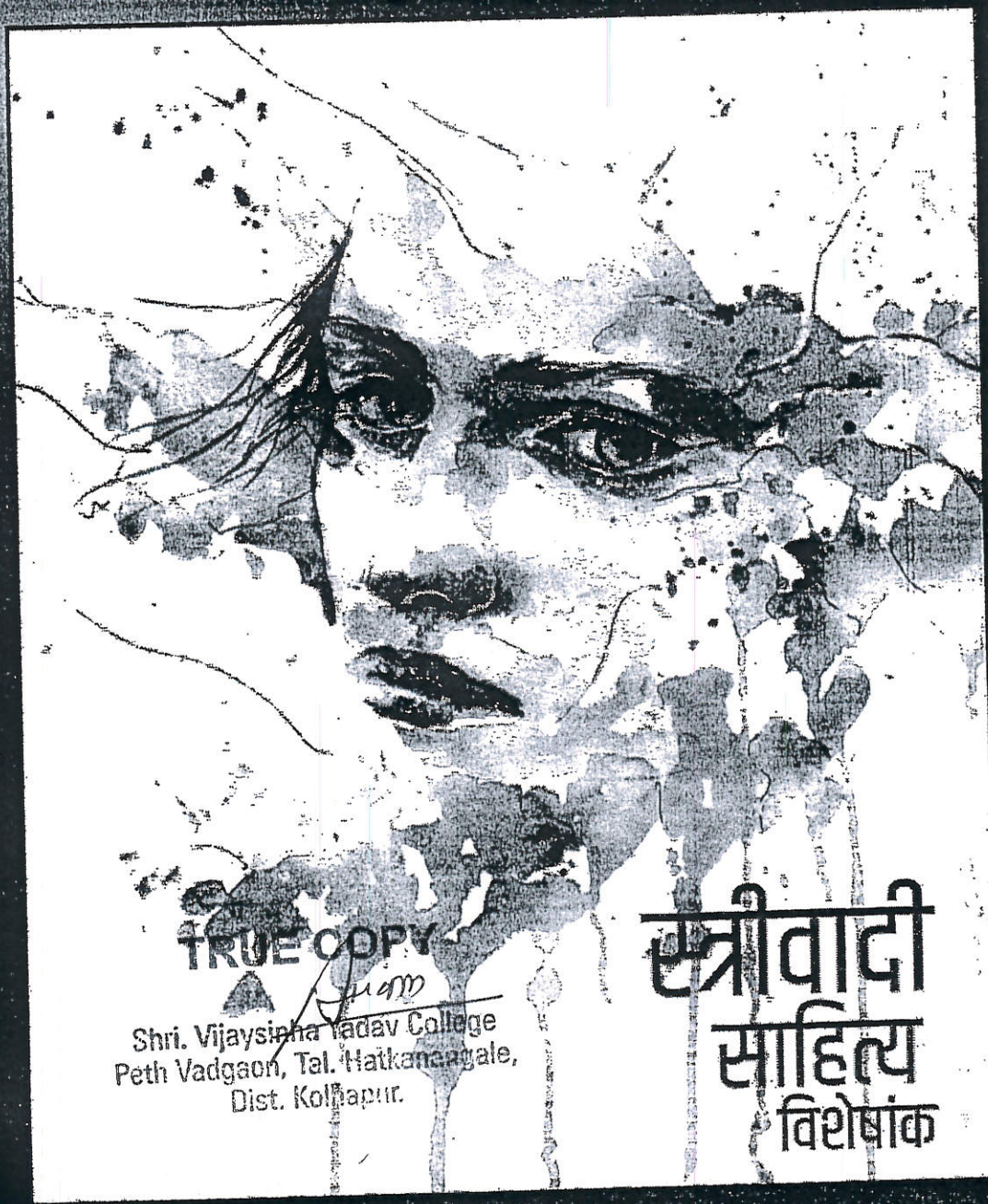
४ मार्च २०२०



स्त्रीवादी साहित्य विशेषांक

संपादक
डॉ. नानासाहेब सूर्यवंशी

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प्रकाशक : सौ. रेखाताई नानासाहेब सूर्यवंशी, प्रतीक प्रकाशन,
'प्रणव', रुक्मे नगर, थोडगा रोड, अहमदपूर-४१३५१५.

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सर्वोत्तम भूमिपुत्र : गौतम बुध्द या ग्रंथातील काही बौध्द स्त्रीव्यक्तिरेखा

डॉ. प्रशांत गायकवाड

प्रस्तावना :

प्राचीन काळापासून स्त्रियांना हीन लेखण्याच प्रवृत्ती पुरूषसत्ताक समाजाच्या कणाकणात रूजलेली होती. वर्णव्यवस्थेत स्त्रियांचे स्वातंत्र्य व अधिकार नाकारले गेले. आर्यांचे भारतात आगमन होण्यापुर्वी अनार्यांमधील काही लोकांत मातृसत्तक पध्दत रूढ होती. आर्यांच्या आगननानंतर स्त्रियांना दुय्यम वागणूक मिळण्यास व तिची अवहेलना करण्यास प्रारंभ झाला. या संदर्भात डॉ. अ ह. साळूंके यांचे भाष्य मोठे मार्मीक आहे. ते म्हणतात स्त्रीच्या तुलनेने पुरूष हाच श्रेष्ठ आहे. ही पुरूषप्रधान समाजाची कल्पना येथील मातृसत्ताक प्रभावित समाजमनावर बिंबवण्यासाठी वैदिक आर्य परंपरेत वाढलेल्या विचारवंतानी या चाली रूढी केल्या. स्त्री-माहात्म्याचे अवमूल्यन करण्याचा इतका कठोर आणि आग्रही प्रयत्न जगात अन्यत्र कोठे ही झालेला आढळत नाही.[१] हे डॉ. साळूंखे यांनी हिंदू संस्कृती आणि स्त्री या ग्रंथात मांडलेले मत मोठे लक्षणीच आहे. यावरून वैदिक संस्कृती मधील भारतीय स्त्रियांचे स्थान स्पष्ट होते. अशा पार्श्वभूमीवर बुध्द तत्वज्ञानाची फार मोठी कसोटी होती. या सर्व कसोटीला बुध्दांचा धम्म खरा उतरला. त्यांनी स्वातंत्र्य समता व वन्यायाची उमदी भूमीका स्वीकारली. व्यक्तीच्या जात, धर्म, वय, वर्ग स्त्रीत्व, पुरूषत्व इत्यादी बाह्य बाबी या धम्मजीवनाच्या आड येत नाहीत यांच्यापेक्षा प्रज्ञा, शील, करूणेला त्यांनी महत्व दिले. उच्च नैतिक आचरण हीच धम्मजीवनाची कसोटी मानली. तथागत बुध्दांनी स्त्री पुरूष असा भेद न मानता दोघेही निब्बान प्राप्त करू शकतात. असे मानले. हा आत्मविश्वास त्या दोघांनाही दिला. बुध्दांच्या या भूमिकेविषयी प्रा. सुशीला मूलजाधव म्हणतात, भगवान बुध्दाने पुरूषाच्या तुलनेने स्त्रीला कमी न मानता स्त्री-पुरूष समानतेचा विचार करून स्त्रीला मानवी हक्क प्रदान केले म्हणूनच त्यांना स्त्री स्वातंत्र्याचे पहिले उदगाते म्हणतात.[२] त्यांनी नोंदविलेले हे मत ग्राह्या वाटते, तथागतांनी स्त्रियांना संघात प्रवेश दिला ही भारतीय इतिहासातील असाधारण घटना आहे. या संदर्भातील वस्तुस्थिती धर्मानंद कोसंबी, डॉ. बाबासाहेब आंबेडकरांनी तसेच डॉ. आ.ह. साळूंखे इत्यादींनी माडली. डॉ. बाबासाहेब आंबेडकरांनी तथागत बुध्दांची या संदर्भातील भूमिका भगवान बुध्द आणि त्यांचा धम्म या ग्रंथात स्पष्टपणे मांडली आणि डॉ. साळूंखे यांनी या भूमिकेचा अधिक विस्तार करून डॉ. बाबासाहेब आंबेडकरांचा हा दृष्टिकोन पुढे नेला आहे. केवळ त्यांनी तो पुढे नेला असे नव्हे, तर मूळ पाली ग्रंथाचा अभ्यास करून त्याची चिकित्सा करून यासंदर्भातील वस्तुनिष्ठता आपल्यासमोर ठेवली आहे. या दृष्टिने त्यांच्या मांडणीला असाधारण महत्व आहे. डॉ. सांळूखे यांनी मांडलेल्या तथागतांच्या स्त्रीविषयक दृष्टिकोणाचा अभ्यास केल्याशिवाय भारतीय स्त्रीवाद नीट समजून घेता येणार नाही. इतकी ही मांडणी

असाधारण आहे. पण तिथे आपण डॉ.आ.ह.साळूंखे यांनी सर्वोत्तम भूमिपूत्र : गोतम बुध्द या ग्रंथातून मांडलेल्या काही बौध्द स्त्रीव्यक्तीरेखांचा पुढील प्रमाणे विचार करू.

तथागत बुध्दांनी स्त्रियांच्या विषयी मांडलेल्या विचारांमध्ये धम्मामुळे स्त्रियांना फुलण्याची संधी मिळाली, मुलगी जन्माला येणे हे जेव्हा कमीपणाचे मानले जाई, स्त्रिया स्वातंत्र्याला पात्र नसतात. स्त्रियांनी शिक्षण घेता कामा नये असे ज्या काळात मानले जात होते त्य काळात तथागतांनी स्त्रियांच्या संदर्भात अगदी उमदी भूमिका स्वीकारलेली होती. या संदर्भातील डॉ. आ. ह. साळूंखे यांचे विवेचन कमालीचे अर्थपूर्ण असून ते मूळातून वाचण्यासारखे आहे.

थेरीगाथा या ग्रंथात त्र्याहत्तर भिक्खूनींनी आपले विचार मांडलेले आहेत. गुणसंपन्न भिख्खुनींचा व उपासिकांचा तथागतांनी गौरव केला होता. तथागत बुध्दांच्या उपदेशामुळे भिक्खूनींनीमध्ये कमालीचा आत्मविश्वास वाढला होता. निर्भयता वाढलेली होती. काहींनी अनेक प्रकारची उच्च गुणवत्ता प्राप्त केली होती. श्रावस्तीमध्ये उप्पलवण्णा नावाची एक भिक्खूनी शालवृक्षाखाली उभी असता माराने तिला घाबरविण्याचा प्रयत्न केला होता. पण ती न घाबरता निर्भय होती. खेमा, कजंगालिका इत्यादी भिक्खूनीं उपासकांना उपदेश करत होत्या. त्यांनी आपली बौध्दिक क्षमता व गुणवत्ता सिध्द केली होती. त्यांचे विचार हे स्वतंत्र व्यक्तीमत्वाचे प्रतीक होते. तथागतांनी त्यांच्यामध्ये अशा प्रकारचा आत्मविश्वास निर्माण केल्यानेच उप्पलवण्णा, पटाचारा, विशाखा, सोणा, सुबला, संघदासी, नंदा, धर्मपाला, संघमित्र, महाप्रजापती, आम्रपाली, यशोधरा, किसा गौतमी इ. अनेक भिख्खुंनी होऊन गेल्या व त्यांनी आपली गुणवत्ता व कार्यकर्तूत्व सिध्द केले. त्यांचे यथोचित मूल्यमापन करतांना डॉ. साळूंखे लिहितात स्त्रियांची सारी अक्कल भात शिजला की नाही हे दोन बोटांनी पाहण्याइतकीच असते, असे माणनाऱ्या संकुचित लोकांना आव्हान देण्याइतकी बौध्दिक गुणवत्ता बौध्द भिख्खुनी प्रकट करू लागल्या. त्या निर्भयपणाने बौध्दिक आव्हाने पेलू लागल्या. आपल्या स्वतंत्र बुध्दीने प्रश्नांचे विश्लेषण करू लागल्या. अशा स्त्रिया केवळ अपवादात्मक नव्हत्या. ही बाब तर अगदी ऐतिहासिक महत्वाची आहे.[३] यावरून बौध्द भिक्खूनींच्या विकसीत व्यक्तीमत्वाचा प्रत्यय येतो. डॉ. साळूंखे यांचे हे विवेचन बौध्द भिक्खूनींचे स्त्रियांच्या स्वातंत्र्यातील स्थान व उंची यथोचितपणे स्पष्ट करते.

काही बौध्द स्त्रीव्यक्तीरेखा :

यशोधरा :

सिध्दार्थांनी गृहत्याग करण्याचा जो निर्णय घेतला होता तो त्यांच्या चिंतनाला साजेसा असाच होता. आपण आईवडिलांच्या इच्छेविरूध्द घर सोडले. ते अश्रू ढाळत असताना आपण बाहेर पडलो. असे सिध्दार्थांनी म्हटले आहे.[४] याचा अर्थ ते कुटूंबीयांना कल्पना न देता रात्रीच्या वेळी गुपचूप बाहेर पडले, हे मत डॉ. साळूंखेना अनैतिहासिक वाटते. सिध्दार्थांनी गृहत्यागापुर्वी कुटूंबीयांबरोबर चर्चा केल्याचे डॉ. बाबासाहेब आंबेडकर, धर्मानंद कोसंबी, डॉ. साळूंखे यांनी ठामपणे प्रतिपादन केले आहे. डॉ. बाबासाहेब आंबेडकर द

बुध्द ॲण्ड हिज धम्म या ग्रंथात सिध्दार्थ व यशोधरा यांच्यातील संवाद नोंदवतात. सिध्दार्थ यशोधरांच्या महालात गेले आणि आपल्या परिव्रज्ज्या घेण्याच्या निर्णयाबद्दल त्यांचे मत विचारले असता यशोधरा विचारपूर्वक उत्तर देताना म्हणतात. मी आपल्या जागी असते. तरी आणखी दुसरे काय करू शकले असते. कौलियांविरूध्द युध्द करण्याच्या कामी मी निश्चितपणे भागीदारीण झाले नसते. त्यांनी सिध्दार्थाचा निर्णय योग्य असल्याची खात्री दिली. त्यांच्या निर्णयाला अनुमती व पाठिंबा दिला. आपला पुत्र राहूल याच्या संगोपणामुळे सिध्दार्थासोबत परिव्रज्ज्या घेता येत नाही, याविषयी खंत व्यक्त करून आपल्या निर्णयावर ठाम राहण्याविषयी सिध्दार्थांना सुचविले. त्या म्हणतात. आपल्या मातापित्याविषयी व आपल्या पुत्राविषयी आपण मुळीच काळजी करू नका. माझ्या शरीरात प्राण असेपर्यंत मी त्यांची देखभाल करीन. ज्या अर्थी आपल्या जवळच्या प्रियजनांना सोडून आपण परिव्रज्ज्याक होत आहात. त्या अर्थी आपण एक असा नवीन जीवनमार्ग शोधून काढा, की तो सकूल मानवजातीला कल्याणकारी ठरेल. हीच एक केवळ माझी इच्छा आहे.[६] त्यांच्या या विचाराचा व प्रगल्भ दृष्टिकोणाचा सिध्दार्थावर फार मोठा प्रभाव पडला हे सांगतांना डॉ. बाबासाहेब आंबेडकर म्हणतात. यशोधरा किती शूर, धैर्यवान, उदात्त मनाची स्त्री आहे, याची पूर्वी कधी न आलेला प्रचिती त्याला आली. अशी पत्नी आपल्याला लाभल्याबद्दल सिध्दार्थाचा ऊर भरून आला.

यशोधरादेवींची क्षमा मागू या :

यशोधरा या झोपलेला असताना सिध्दार्थांनी त्यांच्याशी चर्चा न करता गुपचूप घर सोडले, असे आक्षेप अनेकांनी घेतलेले आहेत. गृहत्यागाचा निर्णय सिध्दर्थांनी कुटूंबीयांसोबत चर्चा करूनच घेतला होता. त्यामध्ये प्रत्यक्ष यशोधरांसोबत चर्चा झालेली नसली, तरी आईवडीलांचा उल्लेख हा संपूर्ण कुटूंबातच उल्लेख केल्यासारखे होते. हे नोंदवून एका महत्वपूर्ण गोष्टीकडे लक्ष वेधतांना डॉ. साळूंखे लिहितात. नाही तरी आपण आईवडील रडत असताना घर सोडले असे तथागतांनी स्पष्टपणे म्हटलेले असूनही कथाकारांनी त्यांच्या त्या म्हणण्याकडे दुर्लक्ष करून ते गुपचूप घरातून बाहेर पडण्याच्या कथा रंगवल्याच ही नाही.[८] याचा अर्थ तथागतांनी कुटूंबीयासोबत चर्चा करूनच पब्बज्जा घेतली याकडे डॉ. साळूंखेंनी आपले लक्ष वेधले आहे. सिध्दार्थांनी आईवडीलांशी चर्चा करून ते रडत असतांना घर सोडल्याकडे अनेक कथाकांरांनी जाणीवपूर्वक दुर्लक्ष केले. या कथाकरांचे हे मत निराधार असल्याचे डॉ. साळूंखे यांनी सप्रमाण सिध्द केले आहे. त्यांच्या या मांडणीमुळे सिध्दार्थांच्या चरित्रातील या प्रसंगाविषयाचा गैरसमज दूर होण्यासाठी व याविषयीची वस्तुस्थिती सुस्पष्ट होण्यासाठी डॉ. साळूंखेनी केलेली मांडणी यशोधरा यांच्या व्यक्तीमत्वांशी उंची अधिक अधोरेखित करणारी आहे.

सिध्दार्थांनी यशोधरा यांच्याशी चर्चा न करताच पब्बज्जा घेतली. याचीच खूप चर्चा करून यशोधरा यांनी केलेल्या त्यागाकडे त्यांनी दुर्लक्ष केले, याविषयी भाष्य करतांना डॉ. साळूंखे लिहितात. असे असेल, तर आज आपण देवी यशोधरांची लाख लाखदा क्षमा मागू या. त्यांनी केलेल्या म्हणा वा त्यांच्या वर

लादलेल्या म्हणा त्याग हे गेल्या अडीच हजार वर्षांतील असंख्य लोकांनी चाखलेल्या आणि येथून पुढेही अनंत लोक चाखणार असलेल्या मधूर, स्वादिष्ट फळाचे मोल आहे. अस समजू या देवी यशोधरांनी त्या त्यागाच्या स्वरूपातील मोल देऊन आपल्याला ते फळ मिळवून दिले. असे मानून त्यांच्याविषयी कृतज्ञ राहू या याचे आभार मानू या शिवाय नंतरच्या काळात स्वत: त्यांनी पब्बज्जा घेऊन संघात प्रवेश केला याचा अर्थ त्यांना तथागतांच्या निर्णयाला नंतर का होईना मान्यता दिली, असेही आपण मानू शकतो.[९]

सुजाता :

जातक अठकथेच्या निदान कथेने बोधिसत्वांच्या जीवनातील एक महत्वाचा प्रसंग नोंदल्याचा उल्लेख करून डॉ. साळूंखेनी त्याची वस्तुनिष्ठ चिकित्सा केली आहे. सिध्दार्थांच्या बुध्दत्वप्राप्तीच्या पूर्वी आपला नवस पूर्ण झाल्याच्या निमित्ताने दुधाचे पायस (खीर) देणारी सुजाता भारतीय बौध्द साहित्यात अत्यंत महत्वाची व्यक्तीरेखा आहे. उरूवेला प्रदेशात सेनानी नावाच्या गावात सेनानी नावाचे एक कूटूंब होते. त्या कुटूंबप्रमुखाला सुजाता नावाची एक सुस्वरूप, सुदंर कन्या होती. सुजाताने कुमारवयात आपल्या गावाशेजारच्या वनदेवतेला योग्य वर मिळून प्रथम पुत्रप्राप्ती झाल्यास दुधाच्या पायसाचा नैवैद्य देण्याचा नवस केला होता. तिची प्रार्थना सफल झाली. त्यानुसार वैशाखी पोर्णिमेच्या दिवशी वनदेवतेला पूजा करण्यासाठी तिने भरपूर दुधाचे पायस तयार केली पूजा करण्यासाठी तिने आपल्या पुण्णा नावाच्या दासीला वटवृक्षाचा पूजा स्वीकारण्यासाठी वृक्षदेवताचा तेथे प्रकट झाली आहे. असे तिला वाटले. ही आंनदवार्ता ऐकून सुजातेने पुण्णा दासीला आपली जेष्ठ मुलगी मानून मुलीला साजेसे सर्व अलंकार तिला दिले. त्यानंतर ती एका सुवर्णपात्रामध्ये पायस घेऊन त्या वृक्षाकडे गेली. बोधिसत्वांना पहिल्यावर वृक्षदेवता प्रकट झाली. असे वाटून तिने मन प्रसन्न झाले. सुजातेने बोधिसत्वांना सोन्याच्या झारीतून पाणी व पायसाने भरलेले पात्र त्यांच्या हाती दिले. त्यांनी तिच्याकडे पाहिले, तेव्हा ती त्यांना म्हणाली अय्य, मी तुम्हांला हे दिले आहे याचे ग्रहण करून तुम्ही यथारूपी विहार करा.[१०] एवढे म्हणून तिने त्यांना वंदन केले त्यानंतर ती त्यांना अणखी म्हणाली माझा मनोरथ जसा सफल झाला तसा तुमचाही होवो.[११] असे म्हणून ती सुवर्ण पात्राविषयी निरपेक्ष होऊन परतल्याचं डॉ. साळूंखेंचे विवेचन सुजातेच्या विचारांची व दृष्टिकोणाची उंची अधोरेखित करते. अटकथेने या प्रसंगाची जी मांडणी केली त्यामधील अतिशयोक्तीचा भाग व त्यातील व्यंग्यार्थाची उक्कल डॉ. साळूंखेनी केली आहे. त्यामुळे या प्रसंगातील वस्तुनिष्ठता अधिकच स्पष्ट हेण्यास मदत होते. सुजातेने दासीला गुलामगिरीतून मुक्त करणे व तिने तथागतांना दिलेला पिंडपात या मानवी इतिहासातील क्रांतीकारक गोष्टी असल्यामुळे डॉ.साळूंखेनी आपले लक्ष वेधले आहे. याविषयी महत्वपूर्ण भाष्य करतांना ते लिहिताता. कदाचित ती झारी आणि ते पात्र मातीचेही असेल पण ज्या कारणासाठी सुजातेने त्यांचा उपयोग केला त्या कारणामुळे त्या वस्तू सोन्यापेक्षाही अधिक मौल्यवान बनल्या, एवढे मात्र नक्की, कदाचित सुजाता एखाद्या सर्वसामान्य व गरीब कुटूंबातील असण्याची देखील शक्यता आहे. किंवा अटकथेने म्हटल्याप्रमाणे ती अत्यंत धनाढ्य कुटूंबातील

असण्याची देखील असू शकेल. पण खरे महत्व या गोष्टींना नसून तिच्या मनातील उच्च दर्जाच्या डोळस श्रध्दाभावाला आहे. तुमचा मनोरथ पूर्ण होवो, या तिच्या सदभावनेनेही सिध्दार्थांना उत्साह दिला असेल. त्यांच्यासारख्या महामानवांनाही सामान्य लोकांच्या सदभावना बळ देतात यात शंका नाही.[१२]

डॉ. साळूंखेचे हे विवेचन व त्यातील व्यंग्यार्थाची केलेली उकल बौध्द वाङमयातील मिथकांकडे पाहण्याची नवी दृष्टी तसेच सुजातेच्या चरित्रातील दुर्लक्षित पैलू ठळक करते. यावरून तथागतांच्या बोधिप्राप्तीच्या प्रवासातील सुजातेचे स्थान स्पष्ट होते. तसेच या निमित्ताने त्यांना दिलेल्या शुभेच्छा, दुधाचे पायस तसेच आपली दासी पुण्णा हिला गुलामगिरीतून मुक्त करून आपल्या मुलीचा दिलेला दर्जा या गोष्टी तिच्या मनातील उमदेपणा स्पष्ट करतात.

पुण्णा (पुर्णा) दासी स्वतंत्र बनली :

पुण्णा दासीने वृक्षदेवतेची बातमी दिल्याने आनंदी झालेल्या सुजातेने तिला दास्यातून कायमचे मुक्त केले. तिला आपली जेष्ठ कन्या मानून तिचा यथोचित गौरव केला तिचे मनुष्यत्व उन्नत बनविले. तथागतांच्या दर्शनामुळे पुण्णाच्या जीवनात कोणता अमुलाग्र बदल झाला हे नोंदवतांना डॉ. साळूंखे महत्वाचे विवेचन करतांना म्हणतात. एक दासी अरिय स्त्री बनली स्वतंत्र माणूस बनली, सुजातेची मुलगी बनली. हा एवढा मोठा बदल एक प्रकारे तथागतांमुळे घडून आला बोधी प्राप्त केल्यानंतर त्यांच्या उपदेशाने समाजात कोणती सुखद परिवर्तने घडविणार होती, त्याची जणू काही चाहूल लागावी, अशी ही घटना होती.[१३] सिध्दार्थांना बोधिप्राप्ती झाली तेव्हा खरोखरच पौर्णिमा होती का नव्हती. हे व्यावहारिक मुद्दे फार दुय्यम आहेत. तथागतांच्या दर्शनाने अपूर्णा दासी पूर्णा झाली हा तिच्या जीवनातील क्रांतीकारक बदल नोंदवून डॉ. साळूंखे पुढे लिहितात. अपूर्ण व्यक्तींच्या जीवनातील संपूर्ण आणि परिपूर्ण करणाऱ्या प्रज्ञेची पोर्णिमा त्या रात्री त्यांच्या ठिकाणी सर्वांगांनी विकसीत झाली. ही खरे तर दासी असतांना ती अपूर्णा च होती आता मात्र ती खऱ्या अर्थाने पूर्णा झाली आणि पुढे होत राहतील.[१४]

मिगारमाता विशाखा :

मिगारमाता विशाखेला उपदेश करतांना तथागतांचे स्वातंत्र व पारतंत्र्य याविषयीचे एक सुरेख सुभाषित अटकथेत आल्याचे डॉ. साळूंखे यांनी नोंदविले आहे. मिगारमातेचा काही व्यापार होता. तिच्या वस्तूंवर नियमांपेक्षा जास्त कर राजा आकारात होता. जादा दिलेली रक्कम परत मिळविण्यासाठी ती राजदरबारा हेलपाटे मारत होती. तरीही तिला न्याय मिळत नव्हता. तथागत एकदा श्रावस्तीमध्ये मिगारमातेच्या प्रसादातील विहारात होते. त्यावेळी ती सकाळी त्यांचेकडे गेली व तिने तथागतांना सर्व हकीकत सांगितली. त्यावर त्यांनी पुढील उदान म्हटले. जे जे परवश ते सर्व दुःख होय. जे जे स्वाधीन ते सर्व सुख होय. (परस्वाधीन असल्यास) छोट्या छोट्या गोष्टींच्या बाबतीत इच्छाभंग होतो. (अशा स्थितीत) आपल्याला हव्या असलेल्या गोष्टी घडणे अवघड असते.[१५]

तथागतांनी स्वातंत्र्याच्या बाबतीत एक संतुलित भूमिका घेतली होती. त्यांनी स्वतःच्या व्यक्तीगत स्वातंत्र्याबरोबरच इतरांचेही स्वातंत्र्य अबाधित राहण्याविषयी आपले जिवन समर्पित केले होते. त्यांनी मिगारमातेला या निमित्ताने उपदेश करतांना स्वातंत्र्य आणि पारतंत्र्य यातील फरक या सुभाषिताद्वारे उत्तम रीतने स्पष्ट केला आहे.

डॉ. साळूंखे यांनी तथागत बुध्दांच्या स्त्रीविषयक भूमिकेचा लावलेला अन्वयार्थ, विविध मतमतांतरांची केलेली चिकित्सा, पाली सुत्तांचा नव्याने लावलेला अन्वयार्थ, डॉ. बाबासाहेब आंबेडकरांच्या वस्तुनिष्ट दृष्टिकोनातून केलेली मांडणी, तिपिटकाकडे पाहण्याचा दिलेला दृष्टिकोण, भारतीय स्त्रीवादाची पाळेमुळे बळकट असल्यामुळे लक्ष वेधणारा, भारतीय साहित्यात मोलाची नवी भर घालणारा आहे. तसेच अखिल बौध्द जगताला दिशादर्शक ठरावा असाच आहे.

संदर्भसूची :

१. डॉ. साळूंखे आ. ह. हिंदू संस्कृती आणि स्त्री लोक वाङ्मयगृह मुंबई ४०००२५, पहिली आवृत्ती - ९ डिसेंबर १९८९ आठवी आवृत्ती - २००८ पृष्ट क्र. १

२. मूलजाधव सुशीला - भगवान बुध्द डॉ. बाबासाहेब आंबेडकर आणि भारतीय स्त्री, कौशल्य प्रकाशन औरंगाबाद, प्रथमावृत्ती २७ मे २००६ पृष्ठ क्र. २१

३. डॉ. साळूंखे आ. ह. सर्वोत्तम भूमिपूत्र - गोमत बुध्द लोकायत प्रकाशन सातारा, प्रथमावृत्ती २४ मे २००७ द्वितीय आवृत्ती - २२ ऑगस्ट २००७ पुनर्मुदन पृष्ठ क्र. ४७४

४. तत्रैव, पृष्ठ क्र. ७५

५. आंबेडकर भीमराव रा. भगवान बुध्द आणि त्यांचा धम्म अनुवाद - तळवटकर चिटणीस रेंगे इ. सिध्दार्थ प्रकाशन मुंबई - १ आवृत्ती २१ वी २००७ पृष्ठ क्र. ३१

६. तत्रैव, पृष्ठ क्र. ३१

७. तत्रैव, पृष्ठ क्र. ३१

८. साळूंखे आ.ह. सर्वोत्तम भूमिपूत्र - उनि पृष्ठ क्र. ७६

९. तत्रैव, पृष्ठ क्र. ७७

१०. तत्रैव, पृष्ठ क्र. ८८

११. तत्रैव, पृष्ठ क्र. ८८

१२. तत्रैव, पृष्ठ क्र. ८९

१३. तत्रैव, पृष्ठ क्र. ८९

१४. तत्रैव, पृष्ठ क्र. ८९

१५. तत्रैव, पृष्ठ क्र. ५९७

शंकर भाऊ साठे (Shankar bhau Sathe)

लेखक..

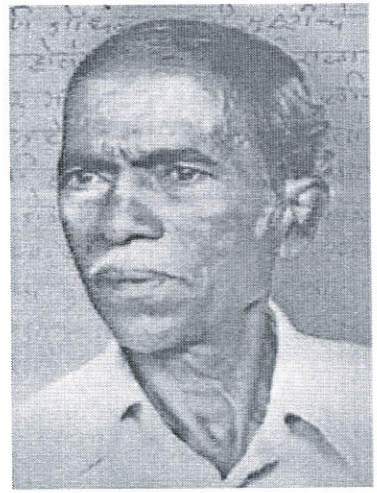
प्रशांत गायकवाड

इतर नोंदी..

ज्ञानमंडळे

31/08/2020 - प्रशांत गायकवाड - मराठी साहित्य

साठे, शंकर भाऊ : (२६ ऑक्टोबर १९२५ – ११ मार्च १९९६). महाराष्ट्रातील शाहीर व साहित्यिक. अण्णाभाऊ साठे यांचे कनिष्ठ बंधू म्हणून शंकर भाऊ साठे हे संपूर्ण महाराष्ट्राला सुपरिचित आहेत. तसेच ते शाहीर व साहित्यिक म्हणूनही सुपरिचित आहेत. वाटेगाव जि. सांगली येथे शंकरभाऊंचा साठे कुटुंबात जन्म झाला. घरच्या प्रतिकूल परिस्थितीमुळे त्यांचे शालेय शिक्षण पूर्ण झाले नाही. अण्णाभाऊ साठे यांच्याकडून लेखनप्रेरणा घेऊन फुले-शाहू-आंबेडकरांच्या साहित्य व चळवळीचा वसा व वारसा अण्णाभाऊंच्या नंतर शंकर भाऊंनी चालवला. शंकर भाऊंनी १९४२ च्या स्वातंत्र्य चळवळीत तसेच संयुक्त महाराष्ट्र चळवळीत सक्रिय सहभाग घेतला.



लाल बावटा व अण्णाभाऊ साठे कला पथकातून त्यांनी शाहीर म्हणून महाराष्ट्र, कर्नाटक, मध्यप्रदेश या राज्यांबरोबरच भारताच्या बहुतांशी भागात समाज परिवर्तनासाठी जनजागृती केली. साहित्यलेखन, अंधश्रध्दानिर्मूलन, अस्पृश्यता निवारण, दारूबंदी इत्यादी प्रबोधनात्मक उपक्रमाबरोबरच भारतीय कम्युनिष्ट पक्ष, काँग्रेस पक्ष, शेतकरी कामगार पक्ष, रिपब्लिकन पक्ष इत्यादी संस्थांशी त्यांचा जवळून संबंध आला.

माझा भाऊ अण्णाभाऊ (१९८०) हे त्यांचे आत्मकथनात्मक चरित्र प्रसिध्द आहे. अण्णाभाऊंचे जीवन आणि कार्य समजून घ्यायला हे आत्मपर लेखन महत्त्वाचे आहे. *एकच काडतूस* (१९८४), *सूड* (१९८५), *सगुणा* (१९८६), *घमांडी* (१९८६), *सावळा* (१९८६),*जग* (१९८६), *लखू* (१९८७), *बायडी* (१९९१), *सुगंधा* (१९९१), *बाजी* (१९९१), *काळा ओढा* इत्यादी कादंबऱ्या प्रकाशित आहेत. त्यापैकी शामगाव या कादंबरीची काही पाने जिर्णावस्थेत उपलब्ध आहेत. यातील दोन कादंबऱ्यांची माहिती उपलब्ध नाही. शंकर भाऊंनी अण्णाभाऊ साठे यांच्या कादंबरीवर आधारीत *फकिरा* या मराठी भाषेतील चित्रपटात फकिराच्या एका दरोडेखोर साथीदाराची भूमिका केली होती. शंकरभाऊंनी केवळ मनोरंजनासाठी, दैववादी, कर्मकांडावर आधारीत लेखन न करता वास्तववादी, सामान्य माणसांच्या कार्यकर्तृत्वावर लिहिले. अन्यायाविरूध्द बंड करणाऱ्या, प्रामाणिक, चारित्र्यसंपन्न, लढावू माणसांवर, त्याच्या जीवननिष्ठेवर लिहिले. अन्यायाची चीड, शोषितांच्या विषयी हृदयात आपुलकी, वास्तव कथानक, प्रभावी घटना-प्रसंग, विचारप्रवण संवाद, विषम समाजव्यवस्थेवर घणाघाती प्रहार, हे त्यांच्या कादंबरी लेखनाचे विशेष नोंदवता येतील. त्यांनी रेखाटलेल्या नायक-

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» मानवशास्त्र
» मानसशास्त्र
» माहिती तंत्रज्ञान

नायिका ह्या बंडखोर, कष्टाळू, धाडसी, करारी बाण्याच्या, आपल्या भावनांना आवर घालणाऱ्या तसेच मानवी जीवनमूल्ये जोपासणाऱ्या आहेत.

संदर्भ : गायकवाड शरद, *अण्णाभाऊंचा भाऊ शंकर भाऊ साठे*, कोल्हापूर, २०१७.

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भारतरत्न डॉ. बाबासाहेब आंबेडकर हे राष्ट्रीयत्वाचे प्रतीक आहेत. जाती, धर्म, पंथ वंश याच्या विविधतेत आणि एकमेकांना असमान किंबहुना दर्जाच्या उच्च नीचतेचे श्रेष्ठत्व मिळाल्या जाणा–या बहुभाषिक, बहुधर्मीय त्यात ही जातीय विभागणी असणा–या देशात राष्ट्रीय एकात्मता निर्माण करणे हे अशक्यप्राय कार्य डॉ. बाबासाहेब आंबेडकरांच्या द्रष्ट्या विचारसरणीमुळे भारतीय संविधानाच्या माध्यमातून शक्य झाले आहे. समग्र डॉ. बाबासाहेब आंबेडकर समजून घेताना त्यांचे कार्य, विचार, तत्वज्ञान आणि द्रष्टेपण यांचा एकत्रित अभ्यास केल्यास डॉ. आंबेडकर ही निव्वळ एक व्यक्ती नसून राष्ट्रनिर्मितीची शक्ती आहे याची प्रचिती आपणास येईल.

आदर्श विद्यार्थी, प्राध्यापक, पत्रकार, संपादक, लेखक, संशोधक, सुज्ञ वाचक, घटक, जलतज्ज्ञ, कायदेतज्ज्ञ, पुस्तकप्रेमी, कलाप्रेमी (संगीत, शिल्प), धर्मशास्त्राचे गाढे अभ्यासक, हिंदू कोडबील व स्त्री स्वातंत्र्याचे समर्थक, डॉ. बाबासाहेब आंबेडकरांनी केलेल्या विविध चळवळी, विमा धोरण, सामाजिक विचार, आर्थिक विचार सर्वसामान्यांपर्यंत पोहोचवणे ही काळाची गरज आहे. असंघटीत मजूर, कामगार यांच्याविषयी सजग असणारे, त्यांचे मूल्य जाणणारे, संघटन बांधणारे त्यांना हक्क आणि अधिकार देणारे शोषणमुक्त समाजरचनेचे पुरस्कर्ते डॉ. बाबासाहेब आंबेडकर होते. संविधानकार डॉ. बाबासाहेब आंबेडकर, त्यांचे शेती धोरण, शेती आणि शेतकरी यांची समकालीन प्रस्तुतता आज समजून घेतली पाहिजे. ओबीसी, मराठा, भटके विमुक्त, आदिवासी समाजाच्या कल्याणासाठी झटणारे डॉ. .बाबासाहेब आंबेडकर हे अजूनही लोकांना माहीत नाहीत. ते कार्य जनसामान्यात पोहोचवण्याची आपणा सर्वांची सामाजिक जबाबदारी आहे. भारतीय स्वातंत्र्य चळवळीतील योगदान, त्यांचे राष्ट्रीय सुरक्षा व परराष्ट्र धोरण तसेच त्यांनी दिलेली धम्मदीक्षा ही मानवतेचा प्रवास असून जातीअंताच्या लढयाचे प्रणेते डॉ. बाबासाहेब आंबेडकर आहेत.

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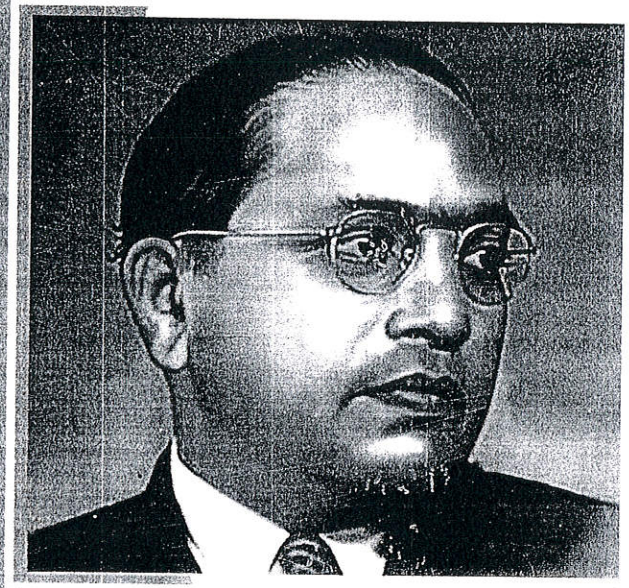

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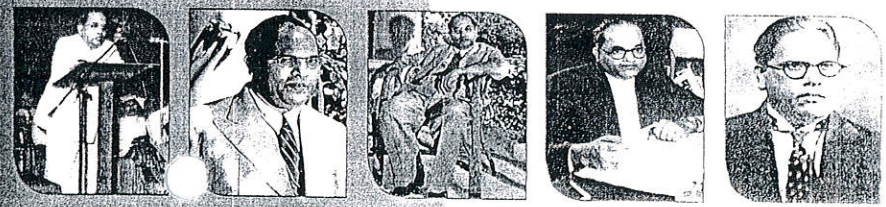

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ता. हातकणंगले जि. कोल्हापूर.

बौद्ध धम्माचा जागतिक पातळीवर विचार करत असताना डॉ. बाबासाहेब आंबेडकर यांच्या आगमनाने त्याचे दोन भाग करावे लागतात. एक भाग जो डॉ. आंबेडकरांच्या पूर्वीचा बौद्ध धर्म आणि दुसरा भाग की जो डॉ. बाबासाहेब आंबेडकरांच्या यांनी दिलेला बौद्ध धम्म होय. यावरून डॉ. आंबेडकरांनी जागतिक पातळीवर बौद्ध धम्मासाठी केलेले युगप्रवर्तक कार्य लक्षात घेण्यात मदत होते.

या संदर्भातील डॉ. बाबासाहेब आंबेडकरांनी लिहिलेले ग्रंथ व साहित्य हे इंग्रजी भाषेमध्ये असल्यामुळे जागतिक पातळीवर त्याचे पडसाद उमटणे, हे स्वाभाविक होते. बाबासाहेबांनी त्यासाठी अहोरात्र परिश्रम घेतले. बौद्ध धम्माच्या दृष्टीने भारतातील स्थिती फारच चिंताजनक होती. देश-विदेशांतून साहित्य जमा करून त्यांनी त्याचा व्यासंग केला. पालीमधील तिपिटकापासून ते जगातील ग्रंथांच्या व्यासंगपूर्ण चिंतनाची जोड दिली. बाबासाहेबांनी पाली भाषेचे दोन कोश लिहिले. त्यापैकी एक कोश पाली भाषेतील शब्दांचा इंग्रजी अर्थ देणारा आहे, तर दुसरा कोश पाली भाषेतील शब्दांचा इंग्रजी, मराठी, गुजराती आणि हिंदी या भाषांमधील अर्थ देणारा आहे. त्यांनी पालीभाषेचे व्याकरण लिहिले आहे. तसेच बौद्ध पूजापाठातील अनेक पाली गाथांचा मराठी भाषेत अनुवाद केला आहे. 'THE BUDDHA AND HIS DHAMMA' हा युगप्रवर्तक ग्रंथ लिहिला आहे. या ग्रंथामुळे अखिल बौद्ध जगतापुढे बुद्धांचे नव्याने चित्रण मांडले गेले. त्याचा जगमानसावर फार मोठा ठसा उमटला. हा इंग्रजी ग्रंथ प्रामुख्याने पाली तिपिटकाच्या आधारे लिहिला आहे. १४ ऑक्टोबर १९५६ रोजी डॉ. बाबासाहेब आंबेडकर यांनी केलेल्या महान अशा धम्मक्रांतीमुळे संपूर्ण जगाचे लक्ष तथागत बुद्धांकडे वेधले गेले. भारतीय समाज हा जाती जातींनी मिळून बनलेला असून जातिव्यवस्थेवर धम्म हाच एक अंतिम उपाय आहे. असे बाबासाहेबांचे मत होते. याबरोबरच बौद्ध धम्माची काही महत्त्वाची प्रतीके भारतीय समाजजीवनात पुनरूज्जीवित करण्याचे महान कार्य केले. यावरून जागतिक पातळीवरील त्यांचे बौद्ध धम्माला दिलेले योगदान लक्षात येईल.

आधुनिक काळात डॉ. बाबासाहेब आंबेडकर यांनी संपूर्ण विश्वाला बुद्धांकडे पाहण्याची एक नवी दृष्टी दिली. त्यांनी वस्तुनिष्ठ, विज्ञाननिष्ठ, शुद्ध सत्यान्वेकडे दृष्टीने बुद्धांचे आपल्या लेखनात केलेले चित्रण अत्यंत मूलगामी असे आहे. त्यांनी केलेली ग्रंथांची मांडणी आणि दृष्टिकोन समजून घेतल्याशिवाय तथागत बुद्धांच्याकडे जाणे मोठे जोखमीचे होईल. जागतिक पातळीवर डॉ. बाबासाहेब आंबेडकर यांच्या साहित्यातील बुद्ध चित्रणाला चरित्र आणि तत्त्वज्ञानाच्या दृष्टीने अत्यंत महत्त्व आहे. त्यांनी संपूर्ण पाली तिपिटकाची मांडणी केली नसली तरी तथागतांविषयीच्या लेखनातून जे तत्त्वज्ञान आणि दृष्टिकोन समोर आणला हे अखिल बौद्ध जगतासाठी दिलेले योगदान आनन्यसाधारण आहे. ते थोडक्यात सूत्ररूपाने पुढील प्रमाणे समजावून घेऊ.

बाबासाहेबांचा पालीचा व्यासंग:

डॉ. बाबासाहेब आंबेडकरांनी जे साहित्य लिहिले त्यामध्ये महाराष्ट्र शासनाने त्यांचे जे साहित्य प्रकाशित केले त्यामध्ये १६ वा खंड आहे. तो त्यांच्या पालीच्या व्यासंगाची साक्ष देणारा आहे. त्यामध्ये पाली भाषेतील शब्दांचा इंग्रजीत अर्थ देणारा कोश तसेच पाली भाषेतील शब्दांचा इंग्रजी, मराठी, गुजराती आणि हिंदी या भाषांमधील अर्थ देणारे दोन कोश लिहिले आहेत. पाली भाषेतील वाक्यरचना कशी असावी? याविषयी इंग्रजी वाक्यांच्या अर्थांसह विविध प्रकारची उदाहरणे देऊन विस्ताराने मार्गदर्शन करणारे पाली भाषेचे व्याकरणही लिहिलेले आहे. तसेच पाली गाथांचा मराठीत अनुवाद करून बौद्ध पूजापाठही लिहिला आहे. आपल्या आयुष्याचा मौल्यवान वेळ देऊन साधारणपणे वयाच्या पन्नाशीनंतर त्यांनी या कार्यास अधिक गती देऊन त्यासाठी आपल्या आयुष्यातील किमान १५ वर्षे खर्ची घातली आहेत. यासंदर्भात वसंत मून लिहितात, "Dr. Ambedkar was past 50 when he stated the compilation of the Dictionary— The Dictionary of the pali language taken up by Dr. Ambedkar for compilation when he was past 50, shows his indomitable spirit to look into the past, in order to know the present and to see the light for the future—The Justification for bringing out the dictionary of pali language lies in the fact that Dr. Ambedkar had his roots in the indian soil, and the pali language is an indispensable key to unlock the secrets of Buddhist India"[१] यावरून बाबासाहेबांच्या पाली भाषेच्या व्यासंगाची स्पष्टता येते. 'द बुद्ध अँड हिज धम्म' हा ग्रंथ त्यांच्या

Synthesis of Pyranopyrazoles Using An Efficient Catalyst Potassium Iodide

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Abstract- *A mixture of aldehydes , ethyl aceto-acetate ,hydrazine hydrate ,malononitrile in water was stirred at room temperature by using efficient catalyst potassium iodide in one pot to get pyranopyrazoles. This method has the advantages of simple work-up, good yields.*

Keywords- Aldehydes , ethyl aceto-acetate ,hydrazine hydrate ,malononitrile , potassium iodide,pyranopyrazole

I. INTRODUCTION

Pyranopyrazole have played a crucial role in the history of heterocyclic chemistry. It is very beneficial due to wide variety of biologically activity. Continuous efforts have been devoted to the development of general and versatile synthetic methodologies to this class of compounds.

II. LITERATURE REVIEW

Many synthetic routes of pyranopyrazole have been reported. These are single or multisteps, and two-component or multicomponent reactions (three or more compound) to get pyranopyrazole. Benefit of multicomponent reactions are more efficiency, simple, low cost, reduces waste, less reaction times.

In 1974 Otto(1) first synthesize by intiating reaction by the base-catalyzed cyclization of 4-aryliden-5-pyrazolone. In 1981 Otto and Schmelz(2) performed with weak base which used for a Michael-type cyclization.

Klokol(3) devloped the direct conversion of 3-methyl-3-pyrazolin-5-one with malononitrile in the presence of a weak base.

III. EXPERIMENTAL

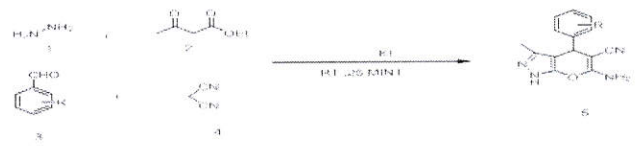
3.1. Experimental section:

All chemical were purchased from Merck, sdfcl were commercially available and were used as such.All reaction carried out at room temperature. Melting points were measured by open capillary method .

3.2. Experimental procedure for the synthesis of pyranopyrazole:

In a round bottomed flask, a mixture of one mole of malononitrile , one mole of ethyl acetoacetate , one mole of hydrazine hydrate , one mole of aldehyde ,potassium iodide with 10 ml water, stirred at room temperature for 25 mint . Reaction is monitored by TLC .The precipitate obtained was filtered off , washed with water then purified by recrystallizatin from isopropyl alcohol to get corresponding pyranopyrazole in pure form.

Reaction



3.3. Experimental table: - synthesis of pyranopyrazoles from various aldehyde

Entry	Aldehyde	Colour	Product %	Melting point
1	Benzaldehyde	White ppt	95	245-259
2	4-Cl Benzaldehyde	Yellow ppt	90	235-240
3	Di-methyl amine-benzaldehyde	Red orange	86	185-195
4	Vanillin	yellow	88	210-215
5	4-Br benzaldehdye	White ppt	91	197-202
6	2-Cl benzaldehyde	Yellow ppt	85	230-238
7	4-methoxy benzladehyde	White ppt	92	200-208

3.4.Spectral data for some product: (Characterization of compounds)

Entry -2 . Yellow solid (235-240)

Sodium Hypophosphite: An Efficient Catalyst For Synthesis Of One Pot Biginelli Condensation

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ABSTRACT:

Sodium hypophosphite is an important catalyst for synthesis of 3, 4-dihydropyrimidin-2-ones. One pot three compound system in presence of catalyst with reflux gives good result. The present protocol of biginelli reaction offers the simple workup, high yield, easy and simple purification and economically available catalyst.

KEYWORDS: aldehydes, urea, ethyl aceto acetate, sodium hypophosphite

Introduction

Today's every researcher focuses on the development of non hazardous alternatives way such as green channel, solvent free synthesis, reusable heterogeneous catalyst etc. Multicomponent reaction also plays important for the synthesis of organic molecules. Biginelli reaction and their derivatives are very important due to their biological and pharmacological activities. MCRs are easy to perform, less expensive, quick and consuming less energy and having simple experimental process. Sodium hypophosphite on the other hand as a catalyst it also known as sodium salt of hypo phosphorous acid. It is water soluble and odorless compound. At room temp it is found to be solid with white color.

In 1891 Pietro Biginelli first time introduced the Biginelli reaction, the biginelli use for the synthesis of dihydropyrimidinones. The compound and it derivatives have important attention in organic and medical field due to their therapeutic and pharmacological properties. Out of these some derivatives shows antiviral, antitumor, antibacterial and anti inflammatory properties.[1-3] the Biginelli condensation can carried out using lewis acid such as polyphosphate esters, some other reagents like Yb(OTf)3[4], In(OTf)3[5], CuCl2[6], LiBr[7], MgBr2[8], FeCl3[9], BiCl3[10], ZrOCl2[11], PPH3[12] etc.

The One pot three component reaction is well known MCR in synthesis of one pot cyclocondesation of aldehyde, ethyl acetate, urea with catalyst SHP gives 3,4-dihydropyrimidin-2-ones.

Experimental

Experimental section

All chemical were purchased from Merck, sdfcl were commercially available and were used as received without further purification, all reaction conducted at room temperature, melting points were measured by open capillary method incorrectly. IR data were recorded on shimadzu (range 4000-400) cm-1. NMR Data recorded in DMSO-d6 as solvent by 300 MHz spectrometer.

General procedure for the synthesis of 3,4-dihydropyrimidin-2-ones

In a 50 ml round bottomed flask, a mixture of aldehyde (1.8 ml), ethyl acetoacetate (2.2 ml), urea (1 gm), sodium hypophosphite (20 mol%) with 10 ml ethanol, stirred at room temperature for 5 minute and then reflux up to 2-3 hr. The reaction mixture, after cooling it was poured in 50 ml ice cold water the precipitate thus obtained was filtered off, and recrystallized with 95 ethanol.

Figure 1 scheme 1 Synthesis of 3,4-dihydropyrimidin-2(1H)-ones catalyzed by Sodium Hypophosphite (SHP)

Experimental table 1 Synthesis of 3,4-dihydropyrimidin-2-one from various aldehyde

Entry	Aldehyde	Time	Product (%)	Melting point
	Benzaldehyde	2 hr	90	208-210
	4-Cl Benzaldehyde	2 hr	80	215-218
	4-OH- Benzaldehyde	2hr	78	205-210
	2-Cl Benzaldehyde	2hr	80	230-240
	4-methoxy Benzaldehyde	2 hr	90	200-210
	4-NO- Benzaldehyde	1hr	80S	200-210
	3-OH Benzaldehyde	2 hr	85	190-200

Experimental table 2 Effect of solvent on the yield of product

Entry	Solvent	Yield
1	Water	10
2	DMSO	60
3	Ethanol	80
4	No solvent	
5	Acetonitrile	30

Spectral data for selected product

Characterization of compounds

5-Methoxycarbonyl-6-methyl-4-phenyl-3,4-dihydropyridin-2(1H)-one IR data- 3319,3215,1664,1606 cm-1
1H NMR(300MHz/DMSO d6) δ1.10(3H), δ 2.2(s, 3H), δ 3.98(q,2H), δ 5.15(s,1H), δ 7.30(m 5H), δ 7.74(s NH), δ 9.19 (s,NH)

5-Methoxycarbonyl-6-methyl-4-(4-chlorophenyl)-3,4-dihydropyridin-2(1H)-one
IR data- 3212,1735,1704,1649 cm-1
1H NMR(300 MHz/DMSO d6) δ1.01(3H), δ2.26(s,3H), δ 3.96(q,2H), δ 5.1(s,1H), δ 7.3(d,2H), 7.4(d,2H), δ 7.7(s NH), δ9.1(s NH)

ONE POT SYNTHESIS OF 1-AMIDOALKYL-2-NAPHTHOL CATALYSIS BY USING SODIUM HYPOPHOSPHITE USING WATER AS SOLVENT

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ABSTRACT:

One pot synthesis of condensation reaction contain aldehyde, naphthol and acetamide using sodium hypophosphite catalyst amidoalkyl naphthol. The heating of round bottom flask with continues stirred on hot plate techniques use for the product preparation with water as solvent. It gives clean and safe method with high efficient product in short time.

Keywords: Multicomponent reaction, Aldehyde, sodium hypophosphite (SHP), water, 1-amidoalkyl-2-naphthol

1. Introduction

In recent year 1-amidoalkyl-2 napthols revised much more attention because their wide application in pharma industries and potential therapeutic activities. It also show same importance's medical properties such as antitumor, antifungal, antipyretic, analeptic, antidepressant etc.

In presence of lewis or Bronsted acid catalyst such as K-10, $CoW_{12}O_{40}.nH_2O$ (13), ZnO (5), K10(10), iodine(12), sulfamic acid for one pot three compound reaction. Other catalyst are having low drawback like low yield, long reaction time. Hence we are introducing clean and eco friendly process for synthesis of an alternative way to produced 1-aidoalkyl-2 naphthol.

Sodium hypophosphite use as catalyst in this reaction. Sodium hypophosphite also knows as sodium salt of hypophosphorous acid, it is solid at room temperature appearing as odorless white crystals. It is soluble in water and easily decomposed from the air.

2. Experimental

2.1 Material and method

All chemical were purchased from SDFCL,Sd- fine, merck and use without further purification. Melting point was determined by open capillary method and is uncorrected. IR data collected from shimadzu (range 400-4000cm-1). NMR Data recorded in DMSO -d6 as solvent by bruker 400 MHz spectrometer.

2.2 General process for the synthesis of 1-amidoalkyl-2- naphthol :

In typical reaction 2 naphthol (1mmol), aldehyde (1mmol) and acetamide (1.5mmol) in small amount of water (5ml) with sodium hypophosphite (5 mol %) were added. sodium hypophosphite is water soluble .the reaction mix was stirred at 100°c for 30 mint. reaction monitor by TLC. after completion of reaction mixture wash with water and then warm water it remove catalyst. After that, it recrystallization from ethanol. Finally white solid product obtained.

3. Results and Discussion :

Initially, we evaluated the effect of the sodium hypophosphite as catalyst for the synthesis of N-((2-hydroxynaphthalene-1-yl)(phenyl)methyl) acetamide as a simple reaction.

In the section we used aldehyde -2 naphthol and acetamide in ratio (1:1:1.5mmol) with different reaction conditions. It was observed that the best result obtained when 5 mol% of sodium hypophosphite. it was observed that when the reaction was carried out without catalyst, it gives poor result. Excess amount of catalyst also reduced the yield. Excess amount of amide was gives more advantage.

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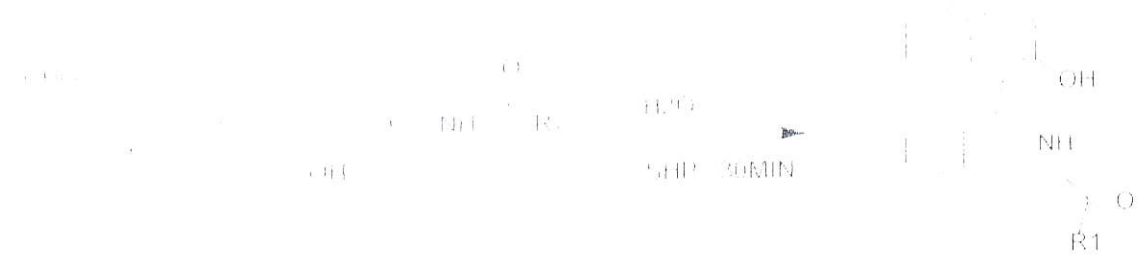

Table 1: Optimization of catalyst concentration for entry 4 at 100°C temperature

Entry	Conc.(mol%)	Time	Temp.(°C)	Yield
1	5	30	100	85
2	10	30	100	80
3	15	30	100	70
4	20	30	100	60

Table 2: Synthesis of amidoalkyl naphthol catalyzed by sodium hypophosphite

Entry	Product	Yield(%)	Time	Melting point
1	1-(Phenyl(phenylamino)methyl)naphthalen-2-ol	80	30 min	213-215
2	1-(Phenyl(phenylamino)methyl)naphthalen-2-ol	79	40 min	201-206
3	1-((4-Chlorophenyl)(phenylamino)methyl)naphthalen-2-ol	85	30 min	223-224
4	1-((4-Chlorophenyl)(phenylamino)methyl)naphthalen-2-ol	80	35 min	210-212
5	1-((4-Methylphenyl)(phenylamino)methyl)naphthalen-2-ol	75	45 min	240-245
6	1-((4-Methoxyphenyl)(phenylamino)methyl)naphthalen-2-ol	60	80 min	115-120
7	1-((4-Nitrophenyl)(phenylamino)methyl)naphthalen-2-ol	80	30 min	230-235

Spectral data for selected product

Characterization of selected compounds

1-(Phenyl(phenylamino)methyl)naphthalen-2-ol (Diphenylmethylacetamide)

Yield: 85%, Color: white solid, mp 213°C, IR (KBr, cm^{-1}): 3410 (s, NH), 3300 (s, OH), 3050 (s, CH), 1600 (s, C=C), 1500 (s, C=C), 1450 (s, C=C), 1250 (s, C-N), 1100 (s, C-O), 750 (s, C-H); ^{1}H NMR (400MHz, DMSO-d6): δ 5.0 (s, 1H), 7.19-7.40 (m, 6H), 7.79-8.19 (m, 5H), 8.80 (s, 1H), 10.0 (s, 1H); ^{13}C NMR (100MHz, DMSO-d6): δ 78.2, 118.2, 119.9, 123.2, 123.4, 123.8, 127.3, 127.7, 128.3, 128.8, 129.2, 129.5, 132.2, 134.8, 150.3.

Table 3: Comparison of efficiency of various catalyst in the synthesis of 1-amidoalkyl-2-napthols

Condition	Time(h/MIN)	Yield(%)	Reference
[bmim]BF4, 120 °C	1.5	89	10
CH3CN, Et3N, rt	3 MIN	85	11
[bmim]BF4	1.5	87	12
[bmim]HSO4, SiHSO4	2	90	13
Cu(OSO2C8H17)2	36	72	14
methanesulfonic acid	30 MIN	85	Present work

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One Pot and Four Component Synthesis of 4 – Arylidene-2-Phenyl-5(4H)-Oxazolones or Azlactones

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***Abstract*: A simple and efficient method by using alum as catalyst for the synthesis for the azlactone in presence of ethanol as solvent. This method gives simple workup with good product yield. The present protocol of azlactone reaction offers the simple workup, high yield, easy and simple purification and economically available catalyst.**

***Keywords*: Alum, hippuric acid, aldehyde, green.**

1. Introduction

One pot three compound (mcr) reaction are most wildly use in medicinal chemistry as well as organic reaction and synthesis. The heterocyclic compound present in nature and they are essentials. the heterocyclic molecule consist N atom are importance in chemical reaction, he is part of many natural product and biological activity. In 1893 F. Erlenmeyer introduced the Erlenmeyer synthesis when aldehyde react with N-acetylgycine and acetic anhydride with small amount of sodium acetate, a simple condensation reaction gives azlactones [1].

Oxazolone and its derivatives are show wide range in pharma. Oxazol are imp intermediates in the synthesis of antimicrobial or anti-inflammatory compound. The erlenmeyer reaction, which is most widely used for preparation for azlactone which given by condensation process of aldehyde, hippuric acid and acetic anhydride. Recently some new catalyst compound includes such as ZnO [16], $(NH_4)_2HPO_4$ [41], $Zncl_2$ [15], Al_2O_3 [42] etc., but above method having problem such as hazardous material, long reaction time and low yield

In this paper we are using alum as catalyst under solvent free condition at high temp 80 -100 c for 1 hr.

2. Experimental

A. Experimental section

All chemical was purchased from Merck, sdfcl were commercially available and were used as received without further purification. All reaction conducted at room temperature melting points were measured by open capillary method incorrectly.IR data collected on (range 4000-400)). NMR Data recorded in DMSO –d6 as solvent by Bruker Avance Neo 500 MHz spectrometer

B. General procedure foe the synthesis of azolactone

In 50 ml round bottom flask add aldehyde (2mmol), hippuric acid(2.2mmol), acetic anhydride (6.6. mmol), alum (10mol %) and ethanol 7 ml. Mixture stirrer and reflux for 1 hour at 80-100 ^{0}C. Progress monitor by TLC. After completion of reaction add 5ml of 95 % ethanol and wash with hot water. The yellow solid was filter and recrystal with acetone and water.

C. Reaction

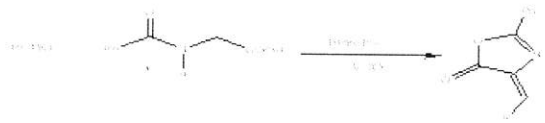

Fig. 1. Scheme 1. Synthesis of Azolactone [4-arylidene-2 – phenyl-5(4H)-Oxazolones]

Table 1
1 - synthesis of 4 benzylidene-2- phenyloxazol -5(4H)-one from various aldehyde

Compound	Aldehydes	Time	Yield	Found mp	reports
5a	C_6H_5CHO	60	90	168-170	169 [40]
5b	4-$MeOC_6H_5CHO$	70	90	154-156	155[40]
5c	4-Cl-C_6H_5CHO	60	90	184-168	186[40]
5d	3 $NO_3C_6H_5CHO$	65	90	166-168	166[40]
5e	Furfural	60	90	168-170	170[40]
5f	4-MeC_6H_5CHO	60	90	142-144	143[40]
5g	$N(CH_3)_2C_6H_5CHO$	60	80	210-212	210[40]

Table 2
Effect of percentage of catalyst on the yield of product

S. No.	Alum %	Time	Yield
1	0	60 mint	-
2	5	60 mint	70
3	10	60 mint	95
4	15	60 mint	92
5	20	60 mint	90

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The Microwave Assisted Rapid and Efficient Synthesis of Azlactones

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Abstract:- A simple and extremely fast and high yielding protocol gives the azlactone under microwave irradiation. azlactone reaction offers the simple workup, high yield, easy and simple purification and economically available catalyst .

Keywords:- *Sodium Hypophosphite, Benzoylaminoethanoic Acid, Aldehyde, Microwave, Green.*

I. INTRODUCTION

Heterogeneous catalysts are always prominent over the homogenous counterparts in terms of environmental friendly, easy and simple in operation to get better result. In recent time green approach of synthesis with solvent free medium or solvent medium, heterogeneous solid acid-base catalysts, nanopartical have received more importance in organic transformations. The uses of simple, cheap and easily available non hazardous catalyst help formation of high yield. Now a day One pot synthesis approaches has open new arena for the development of quick and efficient target complex synthesis. Furthermore heterocyclic systems exhibit wide range of significant pharmaceutical properties.

An oxazoles and oxazolones are important scaffold in drug discovery; it contains N and O in five member ring Oxazolone and its derivatives are show wide use in medical and pharma industry. Oxazol are imp intermediates in the synthesis of antimicrobial or anti inflammatory compound.

In 1893 F. Erlenmeyer introduced the Erlenmeyer synthesis when aldehyde react with N-acetylgycine and acetic anhydride with small amount of sodium acetate ,a simple condensation reaction gives azlactones [1]. Recently some new catalyst compound include such as ZnO [2], $(NH_4)_2HPO4$[3], $ZnCl_2$ [4], Al_2O_3[16] etc, but above method having problem such as hazardous material , long reaction time and low yield

The microwave dielectric heating shows its utility in synthesis , to accelerate the organic reaction. This method is more effective then thermal heating. It improve the purity of product also enhance the chemical yield in short reaction time.

In this paper we are using sodium hypophosphite as catalyst under solvent free condition using microwave process.

II. EXPERIMENTAL

➢ *Experimental Section*

All chemical were purchased from Merck, sdfcl were commercially available and were used as received without further purification. The melting points were measured by open capillary method incorrectly. IR data collected on (range 4000-400)). NMR Data recorded in DMSO –d6 as solvent by Bruker Avance Neo 500 MHz spectrometer. The reaction were carried out in a domestic microwave oven (onida-MO 20CJS26S) at 800 watt.

➢ *General Procedure Foe the Synthesis of Azolactone*

The appropriate aldehyde (1mmol), Benzoylaminoethanoic acid (1.1 mmol) , acetic anhydride (3.3.mmol) and sodium hypophosphite (5 mol %) were taken in Erlen Meyer flask i.e.conical flask capped with funnel. After that flask placed in a microwave oven and it irradiated at 260 watts for 4- 6 min.(table -1) After irradiation , the mixture was cooled to room temperature and then it wash with cold water. Finally the crude product was recrystalized from 95 % ethanol, gives yellow solid precipitated known as azlactone.

- *Reaction*

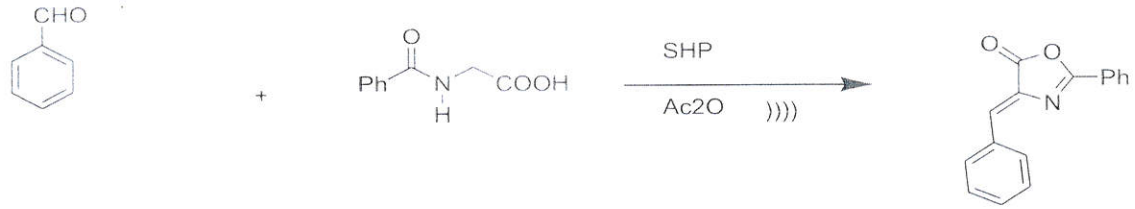

Fig 1:- Synthesis of Azolactone from aldehyde Benzoylaminoethanoic acid acetic anhydride and sodium hypophosphite under microwave irradiation

Compound	Aldehydes	Time	Yield	Found mp
5a	C_6H_5CHO	4	80	168-170
5b	4-$MeOC_6H_5CHO$	4	80	154-156
5c	4-Cl-C_6H_5CHO	5	80	184-168
5d	3 $NO_3C_6H_5CHO$	4	80	166-168
5e	Furfural	5	70	168-170
5f	4-MeC_6H_5CHO	5	75	142-144
5g	$N(CH_3)_2C_6H_5CHO$	6	80	210-212

Experimental Table 1:- Synthesis of Azolactone [4-arylidene-2–phenyl-5(4H)-Oxazolones] from various aldehyde

Spectral data for selected product:
Characterization of compounds:

1) ENTRY 5a 4-Benzylidene-2-phenyloxazole-5-one
1H-NMR(500MHz-DMSO d)- δ 8.32 , δ 8.15 , δ 8.14, δ 8.12, δ 7.75, δ 7.66, δ 7.56 , δ 7.52 δ 7.36
13C–NMR–(125MHz-DMSOd6)-δ166.79 ,162.95,133.60,133.25,132.98,131.16,130.65,129.23,128.88,127.89,124.99,

2) ENTRY 5b 4-(4-methoxybenzylidene)-2-phenyloxazole-5-one
1H-NMR(500MHz-DMSO d)- δ 9.87 , δ 8.31, δ 8.10, δ 7.69 , δ 7.65 , δ 7.12 , δ 3.86 , δ 2.52
13 C NMR(125MHz-DMSO d6) – δ 191.21 , δ 166.99 , δ 161.77 , δ 134.47 , δ 133.26, δ 130.49 , δ 128.94 , δ 126.08 , δ 125.20

III. RESULTS AND DISCUSSION

Sodium hypophosphite acts as compelling catalyst with respective to time and yield. When Benzoylaminoethanoic acid gives transformation with acetic anhydride. Same time Sodium hypophosphite react with aldehyde by linking to the oxygen atom which enhancing the activity and leading to decrease reaction time. This effect can be attributed to the carbonyl complexatin by SHP leading to electrophilic assistance during nucleophilic attack.

Consequently sodium hypophosphite (SHP) is a suitable catalyst for synthesis of 5(4H)-oxazolones, due to excellent yield of the products, simple work up with short reaction time.

IV. CONCLUSION

In conclusion, our interest toward the synthesis of oxazolone derivatives by microwave method using sodium hypophosphite as catalyst in solvent free condition. The catalyst use in reaction is cheap and easily available commercially. The one pot three compound reaction show short time period and good yield in solvent free condition by using microwave irradiation.

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CONFLICT OF INTEREST

The author have declared that no conflict of interest exists.

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One Pot and Three Component Synthesis of 4-aryl-3-Methylisoxazole-5(4H)-One Derivative in the Presence of Sodium Hypophosphite

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Abstract:- sodium hypophosphite is also an effective catalyst use for one pot three component reaction contain ethyl acetoacetate react with hydroxylamine hydrochloride and various aromatic aldehyde, gives iso-oxazole. This reaction carried out in water at 800 C temperature . The product obtained with high yield in convenient time up to 1-2 hours.

Keywords:- *MCR, Aldehyde , Ethyl Acetoacetate , Hydroxylamine Hydrochloride , Sodium Hypophosphite, Green.*

I. INTRODUCTION

In 1850 strecker was introduce first multicompontents reaction (MCR). Multicomponent reaction gives high yield, mild reaction conditions, ecofriendly and reduces the time period. Other than this MCR gives three components reacton gives best result in short time with good yield . In one pot three components system easy constructional with organic substance hence it avoid the complicated process. The green media i.e. water is most suitable system. The synthesis of 4-aryl-3-methylisoxazol-5-(4H)-one derivatives can be prepared by using various reagents and catalyst in basic medium such as sodium sililcate (30), sodium benzoate(29), sodium azide(25), sodium saccharin(26), sodium citrate(27), sodium sulfide(29), Dowex 1-x8OH(28), boric acid(24).

Isoxazole scaffold structure is ad imp for heterocyclic which having favorable properties for pharmacy industry. It also show inhibitor (10) anticonvulsant (3) antifungal (12) antitumor (13) antioxidant (14) antimicrobial (16) anti-inflammatory (17) antiviral (18) antituberculsis etc. due to this imp of isoxazole derivaties , we are synthesis arylmethylene – isoxazole 5-4H-one in water ate high with catalyst.

The green media like water is most common and best solvent. it is safe ,non –toxic , clean , in -expensive and soluble in water. Sodium salt of hypophosphaous acid is odorless white crystal soluble in water clean in use and commercially easily available.

II. EXPERIMENTAL

➢ *Experimental Section*

All chemical were purchased from Merck, sdfcl were commercially available and were used as received without further purification. The melting points were measured by open capillary method incorrectly. IR data collected on (range 4000-400)). NMR Data recorded in DMSO –d6 as solvent by Bruker Avance Neo 500 MHz spectrometer.

➢ *General Procedure Foe the Synthesis of Azolactone*

The appropriate reaction mixture ethyl acetoacetate (2mmol), hydroxylamine hydrochloride (2mmol), aromatic aldehyde (2mmol) and NaH_2PO_2 in 15 ml water was stirred at 80 ^{0}C up to 1-3 hours as per required. After 1-3 hours stirring precipitate gradually is formed during reaction (monitored by TLC analysis). The precipitated was wash with 5% water and recrystallized using 95 % ethanol to afford the product.

All products are known compound and identified by physical data with reported in this literature.

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• *Reaction*

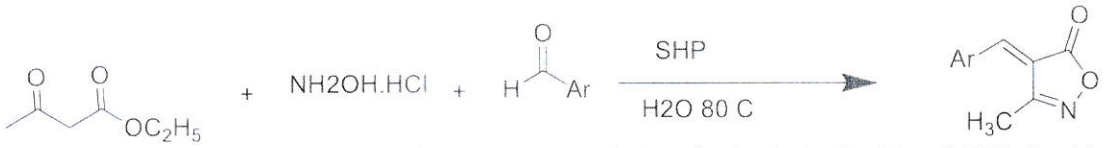

Fig 1:- one pot three component condensations of ethyl acetoacetate, hydroxylamine hydrochloride and aldehyde with sodium hypophosphite gives isoxazole.

Compound	Aldehydes	Time	Yield	Found mp
A1	4-$MeOC_6H_5CHO$	2	80	170-175
A2	2-OH C_6H_5CHO	2	80	190-195
A3	4-OH -$3CH_3C_6H_5CHO$	2	75	142-144
A4	4-Cl-C_6H_5CHO	3	trace	-------
A5	C_6H_5CHO	2	80	142-143
A6	3 $NO_3C_6H_5CHO$	3	-----	-------
A7	Furfural	2	70	230-235

Experimental Table 1:- synthesis of 3- methyl 4-arylmethylidene isoxazole from various aldehyde

Spectral data for selected product:
Characterization of compounds:

1) ENTRY A1-4-(4-methoxylbenzylidene)-3-methylisoxazole -5(4H)-one
Yellow crystal: mp-170-175 ^{0}C
1H-NMR (500 MHz-DMSO d)- δ 8.51 , δ 7.86 , δ 7.14, δ 3.90, δ 2.26
13 C –NMR – δ 168.46 , δ 164.11, δ 162.11, δ 151.07 , δ 136.75 , δ 125.66 , δ 114.53 , δ 55.70, δ 11.12

2) ENTRY A5- 4-(benzylidene-3- methylisoxazole -5(4H)-one
Yellow crystal: mp 142-144
1H-NMR (500MHz-DMSO d)- δ 8.42 , δ 7.94, δ 7.56-7.61 , δ 7.56 , δ 2.29
13 C –NMR – δ 167.64 , δ 162.00 , δ 151.41 , δ 132.28 , δ 130.99 , δ 128.51 , δ 118.69 , δ 11.11

III. RESULTS AND DISCUSSION

Water is one of the best solvents due to its properties like safe, eco-friendly, nontoxic, non flammable, clean, green, inexpensive etc. sodium hypophosphite is water soluble catalyst when react with ethyl acetoacetate, aldehyde with hydroxylamine hydrochloride gives arylmethylene isoxazol-5-(4H)-one derivatives via the one pot three component process. There was no product formation observed in the absence of solvent. The use of ethanol, acetone, dichloromethane and acetonitrile, water green media i.e. water gives best result, when sodium hypophosphite gives more yield. Reaction carried out in two parts, in first stage, ethyl acetoacetate reacts with hydroxylamine hydrochloride to gives ethyl 3-(hydroxyimino) butanoate. In second stage aldehyde react with above product gives Knoevenagel reactions gives 3 –methyl -4- arylmethylene isoxazole-5(4H) one as final product.

Entry	Solvent	Catalyst	Time	T °c	Yield %
1	Ethanol	10	3hr	Reflux/ 80	70
2	CH_2Cl_2	10	3hr	reflux	No reaction
3	CH_3CN	10	3hr	Reflux/80	52
4	WATER	10	2hr	80	80
5	Acetone	10	3hr	Reflux/80	Trace

Table 2:- effect of solvent and temp

Enter	Catalyst %	time	Temp	Yield
1	5	2.5	80	70
2	10	2	80	84
3	15	3	80	82
4	20	3	80	60

Table 3:- percentage of catalyst

IV. CONCLUSION

In conclusion, aromatic aldehyde were react with eaa and hydroxylamine hydrochloride in presence of sodium hypophosphite 10% catalyst in water all result are show in table. The aromatic aldehyde are with electron donating group gives the product with good in short time . ortho substitute group required more time and low yield for 2- hydroxyl benzaldehyde , while electron withdrawing group are not gives product. The one pot three compound systems gives 3 methyl 4arylmethalen isoxazole in water at 80 ^{0}C temperature in short time.

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The author gratefully acknowledges the constant encouragement and support of the Head, Department of chemistry, Dr. Babasaheb Ambedkar Marathwada University Aurangabad and Principal, Deogiri college Aurangabad. Author also thankful to Dr. R. P. Pawar, GVISH college Amravati for kind support through the completion of this work.

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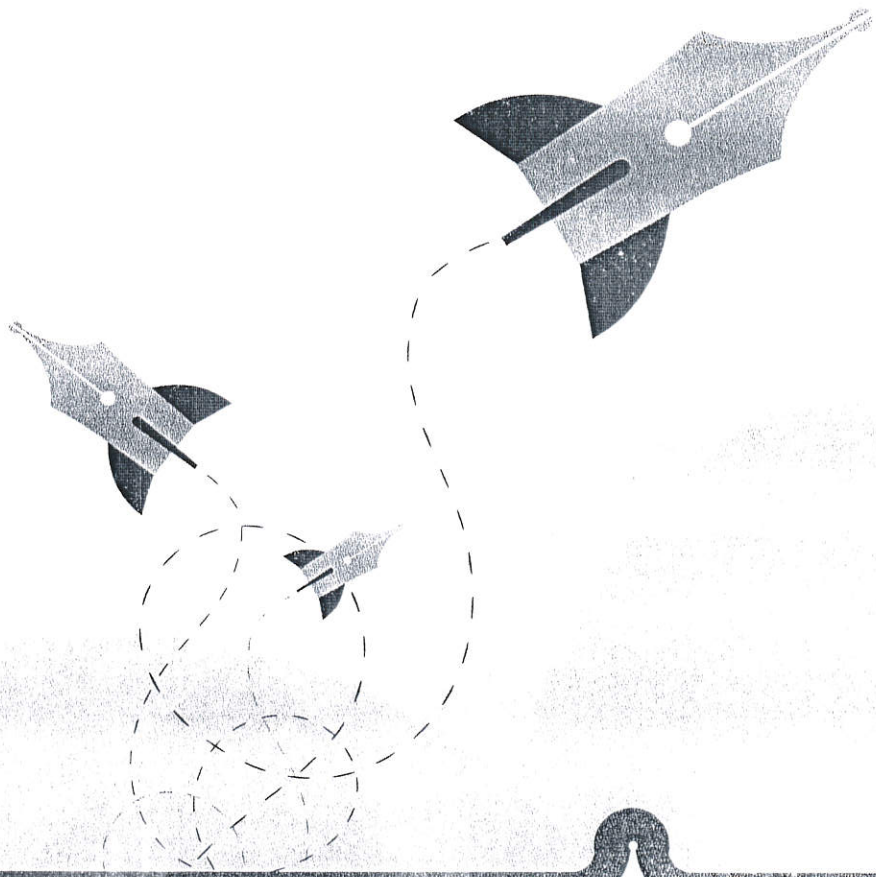

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धूमिल के काव्य में धार्मिक जनचेतना

डॉ० नाजिम शेख*

धूमिल ने अपनी कविताओं के माध्यम से विकृत धर्म और सांप्रदायिकता का कड़ा विरोध किया है। उन्होंने समाज में प्रचलित रूढ़ि एवं अंधश्रद्धाओं पर, धर्म एवं जाती–पाति के बंधनों पर कुरीतियों पर मर्मभेदी प्रहार किये हैं। उनकी कविताओं में असीम आत्मविश्वास है, वे प्रकाश के पुजारी हैं, आशावादी स्वर उनकी कविताओं में दिखाई देता है। वे अपनी कविताओं के माध्यम से वर्तमान विकृत धार्मिकता को बदलना चाहते हैं। वे खुद भी अपना जीवन धर्म और जाति के बन्धनों से मुक्त होकर जीते थे। उनके सम्बन्ध में उनके अनुज कवि याजी लिखते हैं –"वे धर्म के ढोंग में विश्वास नहीं करते थे। चोटी तथा जनेऊ धारण करना वे पसंद नहीं करते थे। छुआछूत को वे नहीं मानते थे। मुसलमानों के घर का खाना खाने के लिए ईद के दिन घर पर खाना नहीं खाते थे। ईसाईयों के घर भी खाने के लिए वे नहीं हिचकते थे। चमार तथा ब्राह्मण उनके लिए बराबर थे, बल्कि ईमानदार तथा मेहनतकश उनके लिए बेईमान तथा दूसरों की कमाई पर जीने वाले ब्राह्मण से कई गुना अच्छा था, उन्हें मानवतावाद अच्छा लगता था, वे देखने में एक साधारण आदमी जान पड़ते थे।" (आलोचना फरवरी 1975 – पृ. 55) स्पष्ट है धूमिल ने समाज में बढ़ रही सांप्रदायिकता का कड़ा विरोध कर सांप्रदायिक सदभाव एवं राष्ट्रीय एकता को बढ़ावा देने का महत्वपूर्ण कार्य किया। कविता के विषय सांप्रदायिक सदभाव की भावना, राष्ट्रीय एकता का महत्व और इसे अभिव्यक्त करने के लिए ईमानदार शब्द योजना यही वह कारण हैं कि धूमिल साठोत्तरी हिंदी कविता के महत्वपूर्ण हस्ताक्षर रहे।

Keywords : धर्म, सांप्रदायिकता, सदभाव, रूढ़ि, अंधश्रद्धा

धूमिल साठोत्तरी पीढ़ी के उन कवियों में रहे जिनकी कविता सामाजिक यथार्थ और अपनी आंतरिक पीड़ा के लिए पहचानी जाती है। उनका समग्र काव्य लोक कल्याणकारी भावना से परिपूर्ण है। स्वातंत्र्योत्तर भारत की सामाजिक, राजनीतिक, सांस्कृतिक और आर्थिक संदर्भों को उनकी कविताओं में अभिव्यक्ति मिली है। मजदूर, किसान, दलित तथा नारी जीवन का यथार्थ चित्रण उनकी कविताओं में मिलता है। धूमिल की हर कविता पृथकजनों के प्रति मानवी संवेदना प्रकट करती है। प्रजातंत्र की विफलता, राजनेताओं की स्वार्थपूर्ति और सत्तापिपासा, शोषण के विरुद्ध संघर्ष की प्रेरणा जैसी बातों को उनकी कविताओं में अभिव्यक्ति किया गया है। धार्मिक आडम्बर एवं विसंगति इस देश की सनातन समस्याओं में से एक है। प्राचीन काल से यहाँ धर्म के नाम पर कुकृत्य एवं अनाचार का बोल–बाला रहा है। धूमिल का यह मानना था कि धर्म के नाम पर जहालत और अंधविश्वास को बढ़ावा मिलता है। इससे जनता में सांप्रदायिकता बढ़ती है। धूमिल ने इन तथाकथित धर्म के रूढ़ी नियमों का, पद्धतियों का विरोध किया। धूमिल के सम्बन्ध में उनके मित्र राजकिशोर जी ने लिखा है – "सहज के सांचे में ढला हुआ धूमिल, अदमकद इस्पात था। बचपन का जिद्दी धूमिल, जात–पात, भूत–प्रेत और धार्मिक अंधविश्वासों में अपनी अनास्था के कारण, पिता की दृष्टि में बराबर 'नास्तिक' रहा।" (कल सुनना मुझे–पृ. 11)

भारतीय समाज में धर्म का प्रभाव रहा है। धर्म की भ्रामक कल्पना से मानव विचारहीन हो गया। सांप्रदायिकता धर्म का सबसे घिनौना रूप है। धूमिल कहते हैं –

"वे खेतों में भूख और शहरों में
अफवाहों के पुलिन्दे फेंकते हैं
देश और धर्म और नैतिकता की
दुहाई देकर
कुछ लोगों की सुविधा
दूसरों की 'हाय' पर सेंकते हैं" (संसद से सड़क तक – पृ. 110)

भारतीय समाज में धर्म के नाम पर जाति–पाति में देश विखंडित हो रहा है। परिणाम हमारे सामने हैं, समाज में अंधविश्वास को बढ़ावा मिल रहा है। सांप्रदायिकता एक जहर की तरह फैल रही है। धर्म के गलत प्रचार के कारण ही वर्तमान का

*अध्यक्ष, हिंदी विभाग, श्री विश्वनाथ यादव कला एवं वाणिज्य महाविद्यालय, पेठ–वडगाव, जि. कोल्हापुर

[illegible]

[illegible] 89)

भारतीय समाज की यह परम्परागत मान्यता [illegible] अतीत की ओर देखते [illegible] निरपेक्ष [illegible] पीढ़ी [illegible] धार्मिक [illegible] पर धूमिल ने करारा व्यंग्य किया है।

"मैंने अचरज से देखा कि दुनिया का
सबसे बड़ा बौद्ध मठ
बारूद का सबसे बड़ा गोदाम है
अखबार के मटमैले हाशिये पर
लेटे हुए एक तटस्थ और कोढ़ी देवता का
शांतिवाद, नाम है ......
यह मेरा देश है ...... (संसद से सड़क तक — पृ. 104)

बौद्ध मठ धर्म का प्रतीक है, लेकिन आज धर्म के नाम पर धार्मिक स्थलों में भी विनाशकारी शक्तियाँ छिपी हुई हैं। मानवता की दुहाई हर धर्म देता है लेकिन धर्म के ठेकेदारों ने धर्म को बदनाम कर उसका विकृत रूप समाज के सामने प्रस्तुत किया है। वर्तमान में धर्म के नामपर अमानवीय व्यवहार लगातार जारी ही रहे हैं। आजतक धर्म के नामपर ही पूरी दुनिया में बड़े-बड़े नरसंहार हुए हैं। धूमिल का यह मानना रहा कि धर्म के इन तथाकथित ठेकेदारों के कारण ही कोई भी धर्म बदनाम होता है। धूमिल ने धर्म के इन ठेकेदारों का डटकर विरोध किया --

"लेकिन मुझे लगा कि विशाल दलदल के किनारे
बहुत बड़ा अधमरा पशु पड़ा हुआ है
उसकी नाभी में एक सड़ा हुआ घाव है
जिससे लगातार भयानक बदबूदार मवाद
बह रहा है
उसमें जाति और धर्म और सम्प्रदाय के और
पेशा और पूंजी के असंख्य कीड़े
बिलबिला रहे हैं।" (संसद से सड़क तक — पृ. 19)

जिस समाज में कोई चेतना शेष नहीं है उस समाज को कवि अधमरा पशु कहते हैं। इस समाज में जाति, धर्म, संप्रदाय, पेशा और पूंजि के कीड़े रेंग रहे हैं। आज के तथाकथित विकसित समाज में पूरे विश्व में रोज न जाने कितने लोग धर्म का शिकार हो रहे हैं। धूमिल ने धर्म के इस अमानवीय रूप का अपनी कविताओं के माध्यम से कड़ा विरोध किया --

"धर्म के लिए मर हुए लोगों के नाम
बात सिर्फ इतनी है
[illegible]
[illegible]
[illegible] पृ. [illegible]

[illegible] आज धर्म के विकृत रूप को प्रस्तुत किया जा रहा है। [illegible] कुछ लोग अपने स्वार्थ के लिए यह सब करते हैं। राजनेताओं ने [illegible] धर्म के ठेकेदारों ने [illegible] की खाई को हमेशा [illegible] रखा। सांप्रदायिकता एक ऐसा सामाजिक जुनून है [illegible] जो पूरे परिवेश पर [illegible] धूमिल सांप्रदायिकता को जहर की तरह स्वीकारते हैं।

"फन फैलाकर हुआ
एक दमकता विषधर
रेंग रहा है
रोजी के नाम पर
रोटी के नाम पर
जगह जगह जहर
फेंक रहा है।" (संसद से सड़क तक — पृ. 94)

जहर की तरह सांप्रदायिकता का जुनून पूरे समाज में फैल रहा है। धर्म को कुछ लोगों ने अपनी रोजी रोटी का साधन बना लिया है। धूमिल ने धर्म बेचने वालों के विरोध में कड़ा रोश प्रकट किया है। जब तक मनुष्य धर्म के सही रूप को नहीं पहचानता तब तक वह सांप्रदायिकता के इस वातावरण में जीने के लिए अभिशप्त है।

निष्कर्ष

कहा जा सकता है कि धूमिल ने अपनी कविताओं के माध्यम से विकृत धर्म का और सांप्रदायिकता का कड़ा विरोध किया है। उन्होंने समाज में प्रचलित रूढि एवं परम्पराओं पर, धर्म एवं जाति- पाति के भेदभाव पर, कुरीतियों पर मर्मभेदी प्रहार किये हैं। उनकी कविताओं में असीम आत्मविश्वास है, वे प्रकाश के पुजारी हैं, आशावादी स्वर उनकी कविताओं में दिखाई देता है। वे अपनी कविताओं के माध्यम से वर्तमान विकृत धार्मिकता को बदलना चाहते हैं। वे खुद भी अपना जीवन धर्म और जाति के बन्धनों से मुक्त होकर जीते थे। उनके सम्बन्ध में उनके अनुज कन्हैयाजी लिखते हैं --"वे धर्म के ढोंग में विश्वास नहीं करते थे। चोटी तथा जनेऊ धारण करना वे पसंद नहीं करते थे। छुआछूत को वे नही मानते थे। मुसलमानो के घर का खाना खाने के लिए ईद के दिन घर पर खाना नहीं खाते थे। ईसाईयों के घर भी खाने के लिए वे नहीं हिचकते थे। चमार तथा ब्राहमण उनके लिए बराबर थे, बल्कि ईमानदार तथा मेहनतकश उनके लिए बेईमान तथा दूसरों की कमाई पर जीने वाले ब्राहमण से कई लाख गुणा अच्छा था, उन्हें मानवतावाद अच्छा लगता था, व देखने में एक साधारण आदमी जान पड़ते थे।" (आलोचना फरवरी 1975 -- पृ.

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आंतर भारती - डिसेंबर-२०१९

इस अंक में

उड़ान की परिधि : सपनों की सच्चाई

– डॉ. नाजिम शेख, कोल्हापुर

सपनों को उड़ान ' एक आदिवासी समाज के युवक के आई. ए. एस . बनने की संघर्षगाथा है । युवा आई. ए. एस . अधिकारी राजेन्द्र भारूड की संघर्षमय, किंतु सफल जीवन–यात्रा प्रस्तुत आत्मकथनात्मक पुस्तक में अभिव्यक्त हुई है । मूल मराठी में लिखी इस आत्म – गाथा को प्रकाश भातंब्रेकर जी ने बडी ही उमदा शैली में हिंदी में अनुवादित किया है । अपने जीवन की कहानी को लिखने के पीछे राजेन्द्र जी का उद्देश्य यही रहा है कि, ग्रामीण और देहाती इलाकों में रहनेवाले छात्रों का आत्मविश्वास बढे , उनके मन में बसी हीनता कम हो , उनकी जिजीविषा और दृढशक्ति विस्तृत हो । सुसंस्कृतता. गुणवत्ता, सफलता. इनपर केवल बड़े शहरों में रहनेवाले और अंग्रेजी स्कूल में पढनेवाले संपन्न और धनवान छात्रों का अधिकार नहीं होता बल्कि जिनके मन में लगन , धैर्य , आत्मविश्वास होता है वह भी सफलता की ऊंचाई तक पहुँच सकते हैं । छात्रों का ग्रामीण इलाके से होना. गरीब होना , मातृभाषा में पढना इन बातों का उनकी सफलता और असफलता से कोई लेना – देना नहीं होता । राजेन्द्र अपने खुद के अनुभव से यह सिध्द कर दिखाते है – कि आदिवासी समाज में जन्म जन्म लेने से पहले ही पिता का साया सर से उठा, माँ और मौसी ने पाल– पोसकर बडा किया । घर में अत्यंत हलाकी का जीवन , झोपडी की जिन्दगी आदि अनेक संकटों का सामना करते हुए भी एक युवक जी–तोड मेहनत कर अपने सपने को साकार कर सकता है ।

महाराष्ट्र के धूले जिले के सामोडा गांव में एक आदिवासी निर्धन परिवार में राजेंद्र भारुड का जन्म हुआ । राजेंद्र की पैदाईश के पहले ही पिता का देहांत हुआ था। माँ और मौसी ने उन्हें पाल – पोसकर बडा किया । घर क्या झोपडी ही थी जिसमें एक भाई, एक बहन और बाहर बची एक भैस यह परिवार था । पूरे खानदान में कोई पढा – लिखा नहीं था । घर में शराब बेचने का व्यवसाय था , माँ शराब बेचकर घर चलाती थी। घर में शराब का बेचना इसे कोई गलत नहीं समझता था । बस्ती के सभी लोग शराब पीने घर पर आते थे लेकिन राजेंद्र की मां शराब बेचने का धंदा अत्यंत ईमानदारी से करती थी । वह अत्यंत श्रध्दावान थी । गाव के अन्य बच्चों के साथ राजेद्र का दाखिला गाव के जिलापरिषद के स्कूल में करवाया गया । मराठी भाषा में शिक्षा का आरम्भ हुआ । लेकिन गाव के स्कूल के गुरूजन उसके साथ बडी आत्मीयता से व्यवहार करते थे । आदिवासी परिवेश के बावजूद स्कूल का वातावरण सुंदर था । गांव में ही एकमात्र स्कूल होने के कारण अमीर – गरीब के बच्चे एकसाथ पढते थे । राजेंद्र होशियार होने के कारण सभी गुरुजन उन्हें चाहते थे । मां से भी कहते – "तुम्हारा यह बेटा तुम्हारा भाग्य बदल देगा। घर की

नवम्बर 2019, कार्तिक-मार्गशीर्ष वि. संवत 2076

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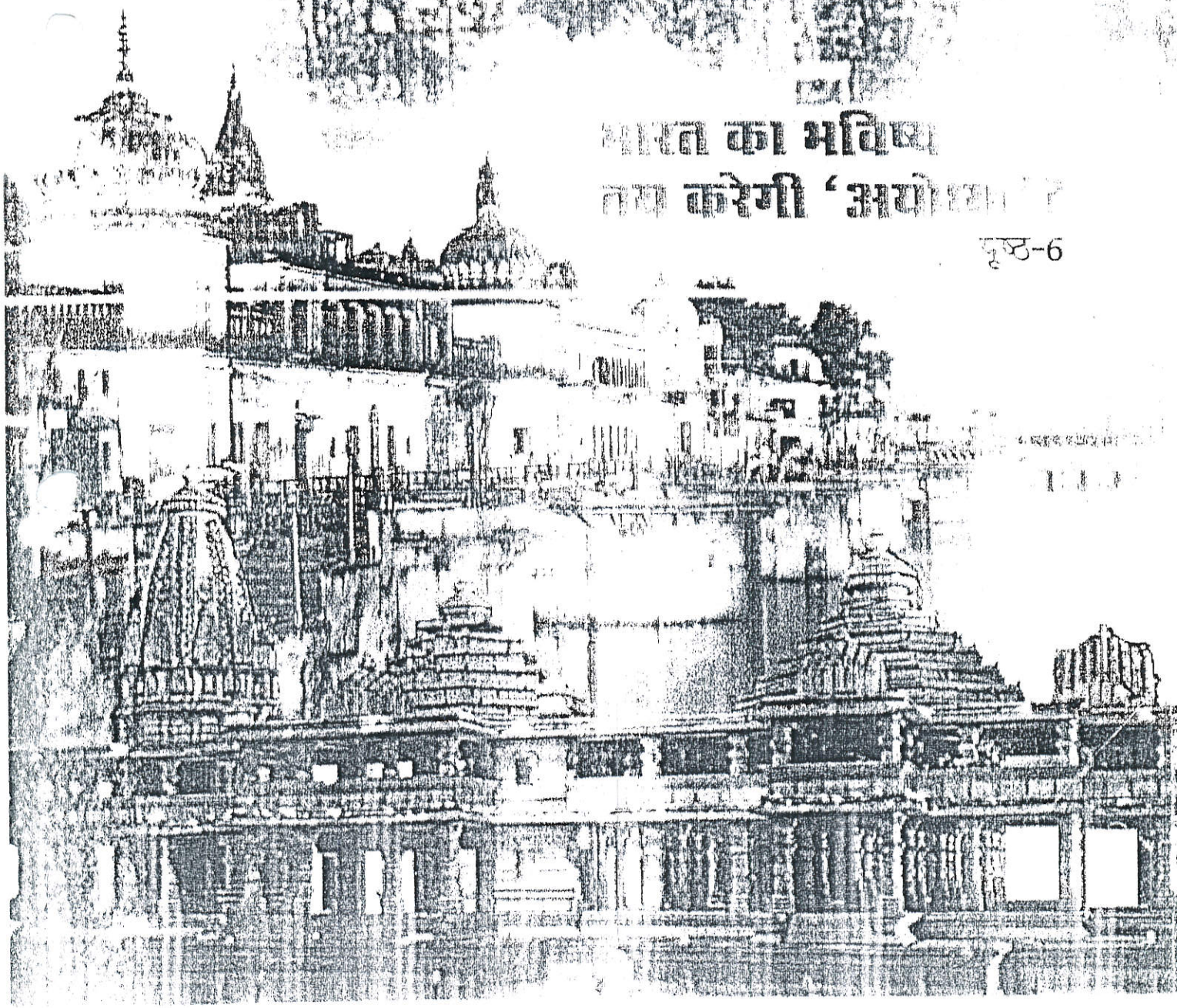

भारत का भविष्य

...करेगी 'अ...

पृष्ठ-6

नव निकष
हिन्दी साहित्य के नए उत्कर्ष, नव संवेदन और नव मानबोध की प्रतिनिधि मासिकी
वर्ष-१३, अंक-०४, नवम्बर २०१९ कार्तिक-मार्गशीष वि.संवत् २०७६
आई.एस.एस.एन-०९७५-७६८X

साहित्य चिंतन

चंद्रकांत देवताले की कविता का सामाजिक पक्ष

• डॉ. नाज़िम शेख़, विजसिंह यादव

चंद्रकांत देवताले साठोत्तरी पीढ़ी के उन कवियों में रहे जिन की कविता सामाजिक यथार्थ और अपनी आंतरिक पीड़ा के कारण पहचानी जाती है। समकालीन सामाजिक समस्याओं को उन्होंने अपनी कविता का विषय बनाया। आजादी के तीस-चालीस वर्ष पश्चात भी समाज का एक वर्ग वैसा ही रहा जिसे न दो वक्त की रोटी मिली न अंग भर कपड़ा मिला और न ही रहने के लिए मकान मिला। इन बुनियादी समस्याओं से घिरे हुए वर्ग को चंद्रकांत देवताले ने नजदीक से देखा था।

आधुनिक युग में कार्ल मार्क्स ने समाजवादी विचारधारा को सामने रखते हुए समाज के विभिन्न अंगों पर विचार व विमर्श किया। मार्क्स ने वैज्ञानिक ढंग से समाज व्यवस्था पर अपने विचार व्यक्त किए। उन्होंने शोषण को खत्म कर वर्ग विहीन समाज रचना की मांग की। मार्क्स के अनुसार "समानता का अर्थ प्रत्येक व्यक्ति के लिए विकास और उन्नति का और जीविका निर्वाह का समान अवसर होना और प्रत्येक व्यक्ति को अपने परिश्रम के फल पर समान रूप से अधिकार प्राप्त होना है। जैसे-Equal opportunity for all from every man according to his work" (यशपाल-मार्क्सवाद, पृ.६२) मार्क्स की इस विचारधारा का असर विश्व भर के साहित्य पर पड़ा। मार्क्सवाद ने साहित्य को नई दिशा दी। मार्क्सवादी विचारों के प्रभाव में आकर विश्व की प्रगत भाषाओं में साहित्य लेखन हुआ। मार्क्सवाद ने साहित्य में नए मानदंड तय किए। वह नए मानदंड समाजवादी साहित्य के नाम से पहचाने जाने लगे।

चंद्रकांत देवताले साठोत्तरी पीढ़ी के उन कवियों में रहे जिन की कविता सामाजिक यथार्थ और अपनी आंतरिक पीड़ा के कारण पहचानी जाती है। समकालीन सामाजिक समस्याओं को उन्होंने अपनी कविता का विषय बनाया। आजादी के तीस चालीस वर्ष पश्चात भी समाज का एक वर्ग वैसा ही रहा जिसे न दो वक्त की रोटी मिली न अंग भर कपड़ा मिला और न ही रहने के लिए मकान मिला। इन बुनियादी समस्याओं से घिरे हुए वर्ग को चंद्रकांत देवताले ने नज़दीक से देखा था। इस वर्ग के प्रति उनकी गहरी सहानुभूति रही। दो वक्त के लिए दर-दर भटकनेवाले आदमी का और उसकी वेदना का यथार्थ चित्रण उनकी कविताओं में हुआ है-

शाम को सड़क पर
वह बच्चा
बचता हुआ कीचड़ से
टेम्पो, कार-तांगें से
उसकी आखों में
चमकती हुई भूख है और
वह रोटी के बारे में
शायद सोचता हुआ (लकड़बग्धा हंस रहा है-पृ.३९)

ग्रामीण परिवेश हो या शहरी परिवेश 'भूख' वर्तमान की प्रमुख समस्या है। चंद्रकांत देवताले ने इस समस्या का चित्रण जगह-जगह किया है। गांव और शहरों में आज भी भूख से बिलखते बच्चों को देखा जा सकता है। शहरों में मंदिरों और दरगाहों के सामने रोटी के लिए कतार में खड़े आदमी का दृश्य रोजमर्रा की घटना है-

"रोटी-पानी के लिए दाड़की की जुगाड़ में
खड़े हैं लोग-लुगाई रानी जी के मंदिर के सामने" (लकड़बग्धा हँस रहा है-पृ.३८)

आजादी के लाभ चंद लोगों तक ही पहुंचे। देश का एक वर्ग वैसा ही रहा जैसे वह आजादी के पहले था। भारतीय आम आदमी के जीवन में कोई बुनियादी फर्क नहीं आया। एक ओर सुख-सुविधाओं को भोगता उच्च वर्ग तो दूसरी ओर खेतों में काम करने वाला किसान-मजदूर तो शहरों में मिलों में काम करनेवाला मजदूर। कवि ने इनका यथार्थ चित्रण अपनी कविताओं के माध्यम से किया है-

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साठोत्तरी हिंदी कविता में दलित स्वर

डॉ. नाजिम बेग,
अध्यक्ष, हिन्दी विभाग,
श्री. विजयसिंह यादव कला व विज्ञान
महाविद्यालय, पो. पेठ वडगांव
जिल्हा–कोल्हापुर,महाराष्ट्र
मोबाईल – 9860651877

हर युग का साहित्य बदलती हुई परिस्थिति के अनुरूप बदलता है । साहित्य अपने समय की मांग के अनुसार लिखा जाता है– साठोत्तरी दलित कविता इस बात का सबूत है । इस काल के दलित कविता में दलित जीवन की संवेदनाओं की प्रौढ अभिव्यक्ति हुई है । इन दलित कवियों ने दलित जीवन खुद सहा था । अभावग्रस्त जीवन, रोटी की तलाश, घर कि समस्या, प्रस्थापितों द्वारा किया जानेवाला अन्याय, बचपनसे ही इन कवीयों को दर–दर भटकना पडा, उन्हें जिन यातनाओं से गुजरना पडा उसका यथार्थ चित्रण उनकी कविताओं में हुआ है,–

" याद करो
उस माँ का चेहरा
जिसका बेटा सरेआम पीटा गया
निर्ममता से,
जिसने चाही थी करनी दोस्ती
जंगल के फूलों
और नदी के लहरों से "

(ओमप्रकाश वाल्मीकि–बस!बहुत हो चुका–पृ.42)

कवि अपने परिवार के पीडित जीवन का चित्रण अत्यंत शब्दों में करते है । कवि को उनके माँ के सामने सिर्फ इसलिए पीटा जा रहा है, क्योंकि उन्होंने अपनी इच्छा से जीवन जीना चाहा था । वह अपनी इच्छा से फूलों और नदी के लहरों को पसंद करने लगे थे । कवि भारतीय समाज की मानसिकता को अभिव्यक्त करते है । सवर्णों द्वारा दलितों को शारीरिक यातनाएं तो दी ही जाती है, लेकिन उससे भी अधिक मानसिक यातनाएं दी जाती है । जाति–पाति के भेदभाव और वर्ण–व्यवस्था में कोई बदलाव नहीं आया है,– जयप्रकाश कर्दम लिखते है–

"मक्कार हैं वे लोग
जो कहते हैं कि,
वर्णव्यवस्था अप्रासंगिक हो चुकी है ।
जब तक स्मृतियाँ रहेंगी
रामायण, गीता और वेद रहेंगे
तब तक पुंजिता रहेंगी ।

(जयप्रकाश कर्दम–शूद्र नहीं था मैं– पृ.30)

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"सोचना होगा दलितों को भी,
कलम का महत्व
हथियार के रूप में उसका प्रयोग क्योंकि,
कलम से लिखे जा सकते हैं,
भाषणों के नोट्स
उच्चरित किए जा सकते हैं अन्याय के खिलाफ "

(जगप्रकाश कर्दम–तिनका तिनका का आग में– पृ.30)

आज–तक दलित चुप ही रहा है, लेकिन चुप रहने का खामियाजा उसे सदियों से भुगतना पड़ा है, इसीलिए वह अब चुप नहीं रहना चाहता । कवि दलितों के आक्रोश को विद्रोह में बदलते देख रहा है। इसी विद्रोह को वह अपने तीखे शब्दों द्वारा प्रस्तुत करता है–

"बरसो ।
बहुत हो चुका चुप रहना
निरर्थक पड़े पत्थर
अब काम आयेंगे संतप्त जनों के "

(ओमप्रकाश वाल्मीकि–बरसो बहुत हो चुका–पृ.80)

दलित अब अन्याय और अत्याचार सहने के विरोध में है । वह अब हम सारों से यही प्रश्न पूछता है कि क्या हम 'मानव' नहीं है ? क्या हमारी यातनाएं मानव की यातनाएं नहीं है ? अब सवर्णों के प्रति उसकी वाणी अत्यंत कठोर हो चुकी है । कवि के शब्दों में –

"मेरे पुरखों मुझे क्षमा करना
मैंने तुम्हारी रस्में तोड़ी हैं,
मैंने सिर झुकाकर पाय लागू
अपनाने की परम्परा नाकारी है ।"

(पुन्नीसिंह–भारतीय दलित साहित्य– पृ.137)

सवर्णों ने संस्कृति को मानो ऐसी जकड़कर रखा है, जैसे उसपर उन्हीं का अधिकार हो । अब दलितों को केवल किसी की सहानुभूति की आवश्यकता नहीं बल्कि उसे अब सब के साथ बराबर का दर्जा चाहिए और जब तक वह न मिल सकता तब–तक वह चुप रहनेवाला नहीं है । कवि दलितों के संघर्ष के साथ उसकी मांग को बुलंद करते हैं । उसकी उथार्थ स्थिति का सीधा चित्रण करते हैं–

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मेरे श्रम और पसीने से ... जले पूले है,
मेरी हिस्से और अपमान पर ... खड़े है,
अत्याचार और अन्याय की ... ये सारे किले,"

(जयप्रकाश कर्दम--पूरा नहीं हुआ मैं ... पृ.16)

दलित-आदिवासी खुद दुःख करके सहन कर लेते है, लेकिन किसी दूसरे को कष्ट नहीं देते है। खुद भूखे प्यासे और नंगे रहकर दूसरो को सुख देने की सोचते रहते है, खुद हमेशा से पीड़ित रहते है लेकिन किसी का शोषण नहीं करते ... पीड़ित दलितों की अंतरिक वेदना को कवि ने स्पष्ट किया है--

"... ...
निरंतर बजता रहा
मेरे भीतर अनहद नाद
सन्नाटो की खामोश चीख सा "

(ओमप्रकाश वाल्मीकि--बस्स बहुत हो चुका,पृ.28)

हजारो वर्षो से हमारी समाज व्यवस्था मे दलित पीडित रहे है ... अनंत यातनाओं की दुःखों की अंतहीन त्रिवेणी आज भी प्रवाहित है ... दुःखो की एक लंबी श्रंखला है जिसका 'अनहद' स्वर उन्हे सुनाई देता है अर्थात यह स्वर दुःखो का स्वर है ...

निश्कर्शतः कहा जा सकता है कि, साठोत्तरी हिंदी कविता में दलित जीवन की सही दास्तान का चित्र अपनी अंतरगता से उभर कर प्रकट हुआ है। हजारों वर्षो से एक समाज ने जो दुःख भोगा, जो सहा, जिन परिस्थितियों से वह गुजरा, उसकी प्रतिक्रिया, अभिव्यक्ति, उस व्यवस्था के प्रति विद्रोह इन कविताओं मे दिखाई देता है ... यह कविताएं वंचितों की वेदना का स्वर है। वे दलितों को संघटित होकर एक साथ संघर्ष करने तथा अपनी स्थिति मे सुधार लाने की प्रेरणा देते है ... यह कविताएं घृणा, अन्याय, अत्याचार करने की जो सदियों से मानसिकता रही है उसके साथ लड़ाई करने, जूझने और अपने हक की सुविधा, व्यवस्था प्राप्त करने का आव्हान करती है ... अत्याचार सहते वर्ग की आखे खोलने का पूरा-पूरा प्रयास इन कविताओं ने किया है ... यह कविताए एक विशेश स्थिति की ओर संकेत करती है ... दलितों के संघर्शपूर्ण जीवन का पूरा दस्तावेज इन कविताओं मे दिखाई देता है। मानवता का पक्ष लेती यह कविता किसी विशिष्ट जाती को, सत्ता को नकारती है ... कविता के विशय, सामाजिक विशमता के परिणाम, शोशण के सही कारणों का विश्लेशण और इसे अभिव्यक्त करने के लिए ईमानदार शब्द योजना यही वह कारण है कि यह कविताएं हिंदी दलित कविता मे अपना विशिष्ट स्थान रखती है ...

अक्षर वाङ्मय

४ मार्च २०२०

नारी विमर्श

विशेषांक

संपादक

डॉ. नानासाहेब सूर्यवंशी

अक्षर वाङ्मय : ISSN : 2229-4929

आधुनिक हिन्दी कवयित्रियों के काव्य में नारी चित्रण

डॉ. वर्षाराणी निवृत्तीराव सहदेव

सह्योगी प्राध्यापक, श्री विजयसिंह यादव महाविद्यालय, पेठवडगाव, ता.हातकणंगले जि.कोल्हापुर

हिन्दी कविता में पुरुष लेखकों का बोलबाला था, लेकिन आठवे दशक के बाद स्थिति बदली और कवयित्रियों ने अपना स्थान सुरक्षित कर लिया है। आधुनिक कवयित्रियों के पास एक नया जीवन अनुभव है; इससे काफ़ी कुछ नया लिखा जा रहा है। प्राचीन काल से लेकर आज की कविता स्त्री के अधिकारों के लिए संघर्ष करती रही है। आज की हिन्दी कविता में स्त्री विचार केंद्र में है। वैसे विमर्शात्मक स्त्री-लेखन 19 वी सदी के प्रारंभ से ही चला आ रहा है। किन्तु उसमें जो परिवर्तन आता गया वह सराहनीय है। प्रारंभ में स्त्री-विमर्श पुरुष विरोधी था लेकिन आज पुरुष विरोधी मानसिकता में परिवर्तन आया है। उसके बाद 20 वी सदी की स्त्री-विमर्श संबंधी कविताओं में कविता के विषय पुरुष न होकर सामाजिक रुढियाँ रही। पितृसत्तात्मक सामाजिक व्यवस्था में मुक्ति की आकांक्षा को कवयत्रियोंने अपना विषय बनाया जो कि सराहनीय प्रयास है।

आज हिन्दी की कवियित्रयाँ प्रतिरोध के स्वरों को जगाने का दायित्व निभा रही है। आज की हिन्दी कविता में स्त्रियाँ अपनी पहचान, स्वतंत्रता और अधिकारों के बार में सोचने लगी है। स्त्रियाँ अब सांसारिक मुद्दों से ऊपर उठकर लिख रही है। उनका लेखन चूल्हे-चौके, आपसी रिश्ते, व्देष, प्रेम आदि सांसारिक बातें से काफी ऊपर उठ चुका है। विभिन्न मुद्दों पर वे अपने विचार बेबाकी से व्यक्त कर रही है। विशेष बात यह है कि इस सदी की कविता में स्त्री-विमर्श देहवादी विमर्श न बने, इस ओर भी ध्यान दिया जा रहा है। भारतीय संस्कृति पुरुषप्राधान संस्कृति है। अत्यंत प्राचीन काल से ही नारी के उन्मुक्त आचरण पर यहाँ रोक लगाई है। केवल लडकी है इसलिए वह जोर से बोल नहीं सकती, हँस नही सकती, रो नहीं सकती, उछल नहीं सकती। चुपचाप सबकुछ सहने के लिए विवश है। लेकिन आज की हिन्दी कवयित्रीयोंने स्त्री-अधिकारों के पक्ष में बात की है। आज तो हिन्दी में अनेक कवयित्रियाँ सक्रिय है। इतनी बडी संख्या में इतनी श्रेठ कवयित्रियाँ इससे पहले कभी नहीं हुई। ये कवयित्रियाँ लगातार हिन्दी कविता के परिदृष्य को व्यापक बना रही है। अनामिका, गगन गिल, सविता सिंह, कात्यायनी, निर्मला पुतुल, निर्मला गर्ग, अनीता वर्मा, इन्दिरा इन्दु, राजी सेठ, क्षमा कौल, स्नेहमर्या चौधरी, कमल कुमार, रश्मि भारद्वाज, लवली गोस्वामी,पूनम अरोडा, संध्या कुलकर्णी और प्रतिभा गोटिवले आदि अनेकानेक स्त्री-कवियों की कविताएँ केवल स्त्री-मुक्ती की चेतना को ही नहीं वरन् संम्पूर्ण समाज के रूपांतर की कामना को वाणी दे रही है।

आज की हिन्दी कविता में स्त्री लेखन की सर्वप्रथम जो प्रवृति दृष्टिगत होती है वह है- 'अस्मिता की खोज'। आज के समय भी सर्वाधिक उन्नत, स्वतंत्र एवं समानतावादी समाज में भी स्त्री सबसे कम स्वाधीन है। मानव-जीवन के प्रारंभिक वर्षों को छोड दे तो स्त्री बंदी जीवन ही बिताती रही है। आज के स्त्री लेखन में नायिका न तो भोग्या बनना चाहती है न पूज्या; बल्कि एक हाड-मॉस की

स्कृति एवं शिक्षा की सार्थक अभिव्यक्ति

अनभै

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अनभै कथा कवन सों कहिए...

पर्यावरण विशेषांक

संपादक

रतन कुमार पाण्डेय

एक सरकारी विज्ञापन की पंक्तियाँ हैं-'हम कौरव हैं, जो कर रहे हैं चीर-हरण, प्रकृति का हर दिन-हर पल, फिर हम क्यों डरते हैं महाभारत से।'' यह सच ही है कि मनुष्य अपने स्वार्थ के लिये हरी-भरी पृथ्वी का चीरहरण कर रहा है। यदि वह नहीं रुका तो पर्यावरण के विनाश रूपी महाभारत का सामना उसे करना होगा। निसंदेह समकालीन कवियों ने हमें पर्यावरण सुरक्षा हेतु जागरूक कियां है और अपने सामाजिक उत्तरदायित्व का निर्वहन बखूबी किया है।

संदर्भ

इस आलेख हेतु समकालीन कवियों के काव्य संग्रहों को आधार बनाया गया है।

१.कैलाश वाजपेयी-तीसरा अंधेरा, राजकमल प्रकाशन नई दिल्ली, पृ.३६

२.एकांत श्रीवास्तव-अन्न हैं मेरे शब्द, आधार प्रकाशन पंचकूला, पृ.२७

३.सुदीप बैनर्जी- प्रतिनिधि कविताएँ, राजकमल प्रकाशन नई दिल्ली, पृ.३७

४.मंगलेश डबराल- नये युग में राधाकृष्ण प्रकाशन नई दिल्ली, पृ.४८

५.लीलाधर मंडलोई- बाठका तिरछा, राजकमल प्रकाशन

६.कुमार अंबुज-अनंतिम, राधाकृष्ण प्रकाशन, पृ.२३

७.राजेश जोशी- मिट्टी का चेहरा, संभावना प्रकाशन हापुड़, पृ.८५

८.जंगल राग- अशोक 'शाह, शिल्पायन प्रकाशन, नई दिल्ली, पृ.१०

९.अनुभव का मुँह पीछे है-अशोक 'शाह, वाणी प्रकाशन, नई दिल्ली, पृ.११

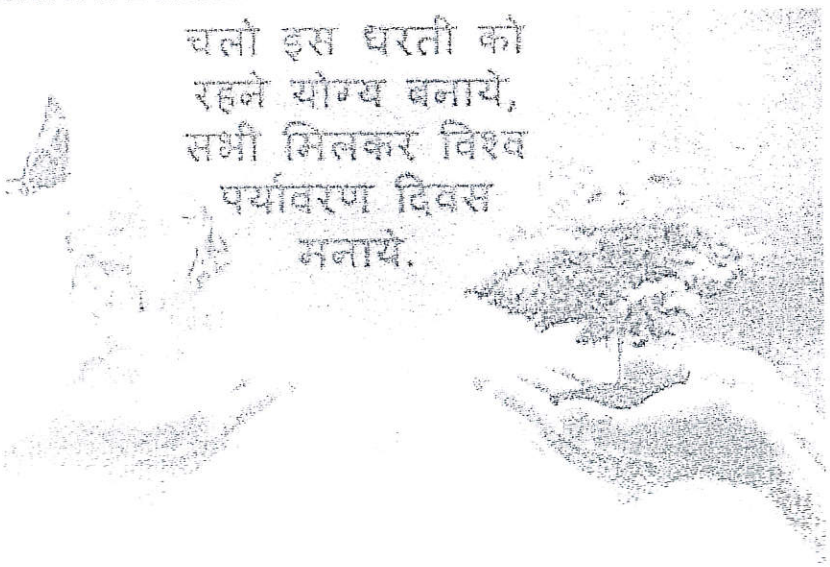
१०.स्वनिल श्रीवास्तव - ताख पर दियासलाई, संभावना प्रकाशन, हापुड, पृ.४१

११.देवी प्रसाद मिश्र- प्रार्थना के शिल्प में नहीं, लोक भारती प्रकाशन, पृ.२४

१२.लीलाधर मंडलोई - रात बिरात,. आधार प्रकाशन, पंचकूला हरियाणा, पृ.४८

१३.कुमार अंबुज- किबाड़, आधार प्रकाशन पंचकूला हरियाणा, पृ.३५

१४. नये नये इलाके में-अरुण कमल, वाणी प्रकाशन नई दिल्ली, पृ.२५



आलेख

समकालीन हिंदी कविता में पर्यावरण संबंधी चिंताएँ

• डॉ. वर्षाराणी निवृत्तीराव सहदेव

सहाय्यक प्राध्यापक, श्री विजयसिंह यादव कला व विज्ञान महाविद्यालय, पेठ-वडगाव, ता. हातकणंगले, जि. कोल्हापूर

समकालीन कविता वह कविता है जिसमें समसामायिक परिवेश अपने हर अंदाज से अपनी उपस्थिति दर्ज करता हुआ दिखाई दे। समकालीन समाज को आज कई मुद्दों से जूझना पड़ रहा है। उन्हीं में से एक 'पर्यावरण प्रदूषण' आज एक अन्तर्राष्ट्रीय समस्या बन चुकी है। वर्तमान समय की सर्वाधिक महत्त्वपूर्ण और सबसे बड़ी समस्या पर्यावरण की सुरक्षा है। पर्यावरण का असंतुलन इतना हो गया है कि मनुष्य जीवन के अस्तित्व पर प्रश्नचिन्ह लग गया है। 'सुजलाम् सुफलाम्' धरती बंजर बनती नजर आ रही है। हम देखते हैं कि, सन १९७० के बाद से पर्यावरण संकट गहरा हुआ है। अत: समकालीन कवियों का इधर ध्यान जाना स्वाभाविक था। इसलिए समकालीन कविता में पर्यावरण चिंता को सक्षमता के साथ अभिव्यक्त किया गया है।

स्वतंत्रता के पश्चात तकनीक के विकास के साथ ही शहरीकरण की वृत्ति भी बढ़ी। गाँव शहर में तथा शहर महानगर में बदलने की प्रवृत्ति कार्यान्वित हुई। इसका मूल कारण था जीवन को सुविधापूर्ण बनाना। लेकिन जीवन को सुव्यवस्थित बनाने के पीछे हम पर्यावरण पर आघात करते गये। इसलिए समकालीन कवि इस स्थिति से लोगों को आगाह करते हैं, ताकि जीवनगत संकट चरमावस्था में न पहुँचे। उपभोक्तावाद के कारण प्रकृति की क्षयोन्मुख अवस्था और उसके परिणामस्वरूप मानव-जीवन की तबाही का एक चित्र लीलाधर जगूडी निम्न पंक्तियों में खींचते हैं।

''मेरे बच्चे तुम्हें बहुत खेल खेलने पड़ सकते हैं
नाचना भी पड़ सकता है बहुत
इसलिए जान लो कि घने जंगल और घास के मैदान
पार्सल से नहीं मँगाए जा सकते।''[१]

विज्ञान ने अपने अनुसंधान से जितना विकास किया उतना ही पर्यावरण पर विपरित प्रभाव पड़ता गया और सब ओर प्रदूषण बढता गया। जिस तरह प्रदूषण बढ़ता गया उसी तरह मानव के लिए पर्यावरण की चिंता बढ़ती गई। समकालीन कवि भी प्रकृति के संकटपूर्ण अस्तित्व को लेकर चिंतित हैं। वास्तव में प्रकृति मानव-जीवन की मौलिक आवश्यकताओं की पूर्ति करती है। इसलिए कवि बताता है कि मानव की मूलभूत आवश्यकताएँ प्रकृति से

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विद्येविना मति गेली, मतीविना नीति गेली
नीतिविना गति गेली, गतिविना वित्त गेले
वित्तविना शूद्र खचले, इतके अनर्थ एका अविद्येने केले

-महात्मा ज्योतीराव फुले

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25

भारतातील शिक्षणाचा हक्क : अमंलबजावणीतील समस्या व उपाययोजनांचा अभ्यास

श्री. चव्हाण अशोक शामराव
समाजशास्त्र विभागप्रमुख,
श्री. विजयसिंह यादव कला व विज्ञान महाविद्यालय पेठ वडगाव

****

१) प्रस्तावना:

प्रा. हेरॉल्ड लास्की यांच्या मते, 'हक्क म्हणजे सामाजिक जीवनाची अशी परिस्थिती होय की, ज्याशिवाय व्यक्तीला स्वत:चा सर्वांगीण विकास करुन घेणे शक्य होत नाही.' तर या संदर्भात के. एम. माथूर पुढील श्लोकाचा संदर्भ देतात -

सर्वे भवन्तु सुखिन:
सर्वे संतु निरामय।
सर्वे भ्रदाणी पश्चन्तु
मा कश्चिद दु:ख भाग्यवेत।।

याचा अर्थ असा की, सर्वांनी सुखी व्हावे, सर्वांना आरोग्य लाभावे, सर्वांचे कल्याण व्हावे व कोणाच्याही वाट्याला दु:ख येऊ नये हा श्लोक म्हणजे मानवी हक्कांचे विश्लेषण होय असे मत माथूर मांडतात. तथापी लास्की यांच्या व्याख्येतील 'व्यक्तीचा सर्वांगीण विकास' व उपरोक्त श्लोकानुसार सर्वांना सुख, आरोग्य, लाभून कल्याण व्हावयाचे असेल तर त्यासाठी प्रत्येकाला निसर्गत:च प्राप्त मानवी हक्क उपभोगता आले पाहिजेत. शिक्षणाचा हक्क त्यातील एक महत्त्वपूर्ण हक्क होय कारण शिक्षणाशिवाय व्यक्तीचा 'सर्वांगीण विकास' शक्य नाही.

युनेस्कोच्या मते, 'जीवनाच्या सर्व व्यवहारांकरीता महत्त्वाचे असणारे ज्ञान, कौशल्य व जाणीव संक्रमीत करणारे संघटीत व सातत्याचे अध्यापन म्हणजे शिक्षण.' तर योहान पेस्टालोत्सी यांच्या मते, 'शिक्षण म्हणजे मनुष्याच्या सर्व जन्मसिद्ध शक्तींचा सप्रमाण विकास होय.' म्हणूनच समाजातील प्रत्येक व्यक्तीला शिक्षणाचा हक्क उपभोगता आला पाहिजे. यावरच व्यक्ती, समाज अन् राष्ट्राचा विकास अवलंबून असतो. या पार्श्वभूमीवर भारतात मानवी हक्काच्या संदर्भाने 'शिक्षण हक्क' करीता स्वातंत्र्योत्तर

Studies in Indian Place Names
(UGC Care Journal)

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Human Rights Protection for Indian Women: A Study of Modern Period in India

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Abstract:

All human beings have rights which are received by birth these rights are means human rights. We can't survive without these human rights. After the Vedic period there were no thinking had done on the human rights which were not confer to the women in India. The awareness and action on the human rights started in British India. The efforts of social reformers for women's human rights turned into different commissions, constitutional provisions and laws. There is continuously protection given to the women's human rights by different commissions, provisions and acts in the constitution of India since satipratha bandi (1829). Researcher selected this topic to study the condition of the women's human rights in India.

Introduction:

According to Mackfarloan, "Being a human, every man and woman received human rights by birth and it's a moral right of humans.

After the Vedic period women have a subordinate place in all sectors of social life. Society have deprived human rights of women which is received by birth.

But in the modern British India discussion has started on this issue. The social reformers are trying that at least woman can live like human. Result of this overall efforts is exists into an act of Satipratha Bandi in 1829. After this, In dependence and independence India woman have got equal rights with man in education, marriage, family and occupation. Because of this women are taking indulgence of there rights to some extent. Now, Women are developing day by day. Among the total population half population of women is entered into the developing stage. It is vital to study how they are developing in reference with social life.

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Objectives of the study:

1) To study the efforts for women human rights during the British India.
2) To study the Provisions and Acts for woman human rights in constitution of India.
3) To study the institutional efforts and implementation on woman human rights
4) To analyze the impact of human rights for woman in educational field.

Data Collection Method:

The present research study is based on descriptive method. The researcher is used books, magazines, internet etc. as secondary data for this research paper.

Assumptions of the study:

1) Mainly, The efforts are taken from the british India for the women human rights.
2) The constitution of India firstly provides the human rights to the Indian women.
3) The Indian women are developing because of the human rights.

Review of efforts taken for the human rights of women:

1. The efforts of social reformer Rajaram Mohan Roy created an act of Satipratha bandi in 1829.

2. Lord Dalhousi declared government policy for education where the government shouldered the responsibility of women education.

3. Jyotiba Phule started first girls school in Maharashtra.

4. Indian Education Commission – 1882-83 recommended for availing financial support for Women Education.

5. Pandita Ramabai presented her witness before the Hunter Commission regarding the Women Education.

6. Maharshi Dhondo Keshav Karve, Dr. Babasaheb Ambedkar, Rajarshi Shahu Maharaj, Tarabai Shinde along with Bramho Samaj, Satyashodhak Samaj, Prarthana Samaj, Aarya Samaj contributed for the women empowerment and Human Rights of Women.

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Annihilating Caste: Understanding Through Reformist Approach in Maharashtra

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Abstract:

The presents article focused on the issue of annihilation of caste in India. There are various perspectives for the understanding of caste issue. The movements against exploitation is wildly concentrating on the physical issue of castes. The reform movement is one of the important approaches for the understanding of caste issue in the relation of annihilation of caste system in India.

The article is an analytical nature for that purpose secondary data has been collected. The prime objective of the study is understanding the concept and process of annihilation caste. The second object of the study shows the reform movements is one of the important approaches as like Phule Ambedkar, Marxist, status-quo, etc.

As a conclusion the reformist movements doing reform within the boundary of Hindu shastra.

Key word: **Annihilating Caste, reform movements.**

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Annihilating Caste: Understanding Through Reformist Approach in Maharashtra

Introduction:

The M.K. Gandhi is known as a *Rastrapita* (Father of Nation) for his contribution in freedom movement of India. The movements are working on the thoughts of Gandhi these are followed the ideology of reform within the various section of society. Caste is on issue of these movements to reform; therefore, it is known as reform movement. The reform movements and thoughts of Gandhi wants to destroyed evil customs in Indian society. These movements want to eradication of Untouchability. The thoughts of Gandhi and the movements of reforms have seen deeply rooted in the ideology of *Lokhitwadi* Agrkar, Ranade and Vivekananda; which are the hardly supporters of reform within the Hindu philosophy.

Research Methodology:

Objectives:

1) Understanding of the concept and process of annihilation caste.
2) Analysis of reformist approach concern to the annihilation of caste

Research Design and Data collection:

The article is an analytical nature for that purpose secondary data has been collected.

Reformist Approach in Maharashtra

The dream of state of Gandhi *Hind Swaraj* (the self- government of Hindus) itself indicated the ideology of Gandhi. The Vivekananda rejected the

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Abstract:

Nature based tourism is most demanded which expanding as an important source for income in developing countries such as India. The concept of Ecotourism was emerged in 1990s. Due to the heavy flow of tourist and huge construction leads to increase in the impact on environment. For this purpose the researcher has been selected the impact analysis on ecotourism sites of Mahabaleshwar tourism cluster. This study consists of analysis of impact of tourism on ecotourism centre. For this analysis likert scale is used. The study reveals that, the increasing number of tourist is affecting Mahabaleshwar cluster on large scale.

Keywords: *Likert scale, ecotourism,entrepreneur etc.*

1.1 Introduction:

Tourism is one of the crucial parts of economic and planning process. There are varieties of tourism activities widely developing in the world. In which nature based tourism is most demanded which expanding as an important source for income in developing countries such as India. The concept of Ecotourism was emerged in 1990s. The term of Ecotourism was first mentioned by Ceballos-Lascurian. It was initially used to describe nature-based travel to relatively undisturbed areas with an emphasis on education. In the present work the local entrepreneurs and impact of Tourism on Ecotourist Destination is to be discussed in detail. The local entrepreneurs are the main factor in the development of any ecotourist place. In ecotourism development the local people participation should be 100 percent. Due to the heavy flow of tourist and huge construction leads to increase in the impact on environment. For this purpose the researcher has been selected the impact analysis on ecotourism sites of Mahabaleshwar tourism cluster.

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A Brief Overview of 2D MXene: Exfoliation, Energy Applications and Recent Trends

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ABSTRACT

MXenes are a new family of 2D layered transition metal carbides and carbonitrides and have garnered significant attention recently due to their multi-faceted advantageous properties: large surface areas, high electrical and thermal conductivity, mechanical strength, etc. MXenes also show combined features of good electronic conductivity, flexibility and hydrophilicity, which are rare in 2D materials. MXene have shown applications in energy conversion and storage devices like supercapacitors, lithium-ion batteries and solar cell, catalysis, sensors, water purification and also in biomedical fields. In this brief note, the information about the steps involved in the synthesis of MXene by the etching process is explained. The main applications of MXene are highlighted with continued and new important trends related to the synthesis and applications of MXene are briefly explained by referring to the literature.

Keywords: Two-dimensional materials, MXene, exfoliation, Etching, etc.

HOW TO CITE THIS ARTICLE

Sachin J. Pawar, Rutuja A. Chavan, "A Brief Overview of 2D MXene: Exfoliation, Energy Applications and Recent Trends", International Journal of Enhanced Research in Science, Technology & Engineering, ISSN: 2319-7463, Vol. 8 Issue 7, July-2019.

1. Introduction

Layered materials composed of two or more elements offer huge opportunities for a myriad of applications, arising from their compositional diversity and structural flexibility. A new family of 2D early transition metal carbides, nitrides, and carbonitrides, usually referred to as MXenes, has recently been discovered [1]. A continued increasing interest in MXene-related research is observed as reflected by the stats shown in fig. 1. The 2D layers of those carbides are labeled as "MXene" because it is produced by etching a layer from MAX phases and the suffix "ene" to emphasize their similarity to graphene. Two-dimensional (2D) nanomaterials MXenes have attracted great interest in recent times due to their extraordinary physicochemical properties. They belong to a unique material family with a thickness of a single or several atomic layers. This unique ultra-thin nature gives a large specific area for charge storage. Also, the simple 2D sheet structure with a large aspect ratio endows them with direct incorporation with other nanomaterials creating new compositions for higher performance; and a self-assembly process for 3D structures with high mechanical integrity and flexibility originating from the large overlapping areas [2]. MXenes adopt three structures, as inherited from the parent MAX phases: M_2C, M_3C_2, and M_4C_3. Recently, it has been shown that by using a combination of chemical exfoliation and sonication, the synthesis and mass production of 2D materials from three-dimensional (3D) layered compounds with chemical bonding between the layers is also feasible [3].

Producing an MXene by etching a MAX phase occurs mainly by using strong etching solutions that contain a fluoride ion (F^-) such as hydrofluoric acid (HF) [3], ammonium bifluoride (NH_4HF_2) [4], and a mixture of hydrochloric acid (HCl) and lithium fluoride (LiF) [5]. During exfoliation, depending on the type of chemical environment, a mixture of F, O, or OH groups terminates the surface of MXenes [6]. Most experimental investigations have mainly focused on the excellent electrochemical behavior of MXenes for energy storage as ion batteries, gas storage, and various catalysis applications because of their large exposed surface area, hydrophilic nature, adsorption ability, and surface activities. The latest applications and developments of MXenes have been summarized in the recent review article [7-8].

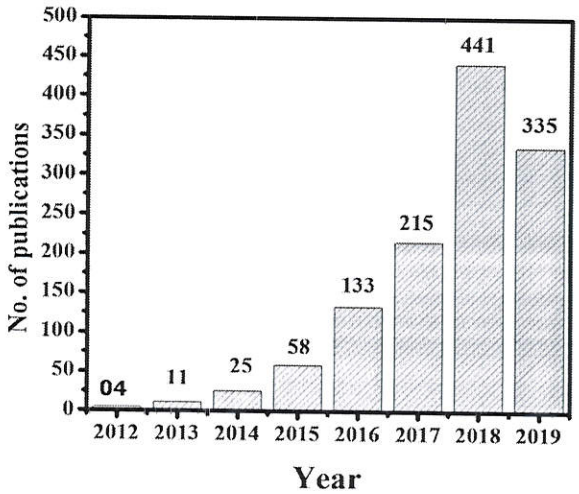


Figure 1. The number of research papers per year on MXene.
(Source: Scopus database "MXene" articles shown up to April 2019 only).

2. Preparation of MXene.

In the past several years, an elegant exfoliation approach has been used to successfully create a new family of 2D transition metal carbides, nitrides, and carbonitrides, termed MXene, from layered MAX phases, which also require different etching conditions.

MAX phase as Precursors

MAX phases are a family of solids with layered hexagonal structures and a space group symmetry of P63/mmc (No.194), whose chemical compositions are traditionally known by the chemical formula $M_{(n+1)}AX_n$, where n = 1, 2, or 3, "M" is an early transition metal (Sc, Ti, Zr, Hf, V, Nb, Ta, Cr, or Mo), "A" is an element from groups III-VI in the periodic table (Al, Ga, In, Tl, Si, Ge, Sn, Pb, P, As, Bi, S, or Te), and "X" is carbon and/or nitrogen [9]. Till date, more than 72 MAX phases have been reported. According to the value of n, different MAX phase stoichiometries are usually referred to as M_2AX or 211 phases, M_3AX_2 or 312 phases, and M_4AX_3 or 413 phases. The basic difference in the crystal structure of these three groups is the number of M layers separating A layers. There are two, three, and four M layers in between two A layers in 211, 312, and 413 phases, respectively. MXenes are synthesized by selective etching of A elements from the MAX phase using strong acids and exfoliation as shown in fig. 2.

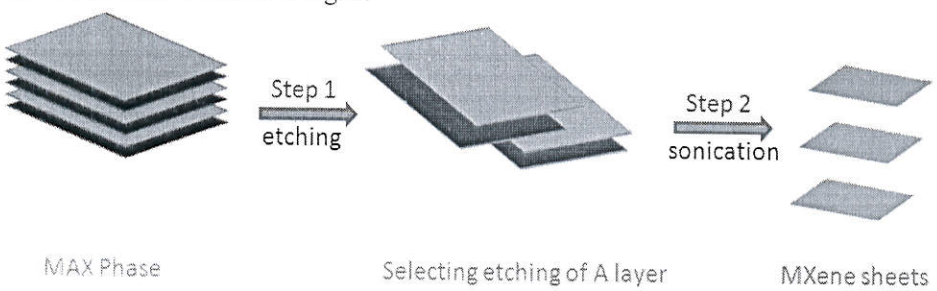


Figure 2. Schematic diagram showing the preparation of MXene

2.1 Exfoliation/Etching of MAX phases to MXene by HF

Ti_3C_2Tx (T = OH, and F) is obtained by extracting the weakly bonded Al layers from the Ti_3AlC_2 phase [3]. The reactions of the HF solutions with Ti_3AlC_2 include:

$$Ti_3AlC_2 + 3HF = AlF_3 + 3/2H_2 + Ti_3C_2, \quad (1)$$

$$Ti_3C_2 + 2H_2O = Ti_3C_2(OH)_2 + H_2, \quad (2)$$

$$Ti_3C_2 + 2HF = Ti_3C_2F_2 + H_2. \quad (3)$$

Reactions (2) and (3) result in OH and F terminations, respectively. Centrifugation is performed to separate the solids, which are then washed with deionized water. Without delamination, MXenes possess multilayered structures. To obtain single- or few-layer MXenes, sonication is performed and later replaced by intercalation of dimethyl sulfoxide (DMSO), which proved to be more efficient [10]. This strategy is applied to prepare almost all other MXene sheets from Al-containing MAX phases. Notably, the etching conditions (time and HF concentration) are necessary to convert a given MAX phase vary widely, depending on the particle size and temperature. For example, reducing the MAX phase particle size by attrition or ball milling can effectively reduce the necessary etching time and/or HF concentration [11]. In addition, discrepancies in M-Al bond energies for different MAX phases also require different etching conditions. For example, the larger Ti-Al bond energy in Ti_2AlC compared with the Nb-Al bond energy in Nb_2AlC results in extended etching time and increased HF concentration [12]. Hence, appropriate etching conditions are necessary to achieve high yields and complete the conversion of MAX phases into MXenes.

2.2 Exfoliation/Etching of MAX phases to MXenes by NH_4HF_2

Recently, Halim et al. reported the use of ammonium bifluoride, NH_4HF_2, as an etchant in instead of the hazardous HF [4]. Its milder nature and concomitant intercalation of cations during the etching process render it more suitable for preparing delaminated MXenes. As the etching and intercalation processes occur simultaneously, it is reasonable to conclude that the following reactions exist:

$$Ti_3AlC_2 + 3NH_4HF_2 = (NH_4)_3AlF_6 + 3/2H_2 + Ti_3C_2 \quad (4)$$

$$Ti_3C_2 + aNH_4HF_2 + bH_2O = (NH_3)c(NH_4)dTi_3C_2(OH)_xF_y \quad (5)$$

Because of slower and less vigorous reaction processes, and the intercalation of both NH_3 and $NH^+{}^4$, the atomic layers in $Ti_3C_2T_x$ are more uniformly spaced and appear to be glued together.

2.2 Exfoliation/Etching of MAX phases to MXenes by LiF and HCl

Ghidiu et al. reported a new high-yield method for the simultaneous preparation of many MXene sheets [5]. In this method, Ti_3C_2Tx is prepared by dissolving Ti_3AlC_2 powders in LiF and HCl solutions, mixture was heaed at 40°C for 45 h, and finally washing the sediment to remove the product and increase the pH. A clay-like paste formed from this processing; was rolled to produce flexible, free-standing films with high volumetric capacitance The lack of defects reflects the milder nature of the LiF + HCl etchant compared with HF. Intriguingly, other combinations of fluoride salts and acids, such as NaF, KF, CsF, tetrabutylammonium fluoride [$(C_4H_9)4NF$], and CaF_2 with HCl or H_2SO_4, showed similar etching behaviors. This one-step etching procedure is desirable for future explorations.

3. Applications of MXene

MXene has shown applications in many technological fields. MXenes are highly conductive and extremely durable, they can block electromagnetic interference, sense chemicals in the air, remove salt from water, and capture hydrogen They've made a strong case to be involved in the future of energy storage, wireless communication and wearable technology. wearable electronics, energy storage and electromagnetic interference shielding are among those on the horizon as well as understanding how to make them stable in atmospheric conditions for extended periods. They also point the way toward creating magnetic MXenes that could be used for data storage devices. MXenes as transparent conductors [4,13], field-effect transistors [14], supercapacitors[13, 15], Li-ion batteries [12], electromagnetic interface shielders

[16], fillers in polymeric composites [17], hybrid nanocomposites [18], purifiers [19], dual-responsive surfaces [20], catalysts [21] and photocatalysts for hydrogen production. There is a worldwide contest to develop alternative clean energy resources in this regard, MXene is assumed a satisfactory material used in energy conversion and storage devices There is a great improvement in the properties of the materials with reinforcement by using various modified strategies. There is a wide range of applications of MXene and MXene reinforced materials. For brevity, here we discuss recently reported applications of MXene in the two main fields namely Lithium-ion batteries, and supercapacitors only.

3.1 Lithium-ion batteries

Researchers have been devoting numerous efforts to improving both cathodes and anodes to achieve LIBs with high capacity, short charge-discharge time and long cycle life. MXenes have been demonstrated to be satisfactory materials for anodes of LIBs. Some interesting recent reports about the use of MXene as anode materials for lithium-ion batteries. Electrochemical performance of $Sn@V_2C$ MXene, the Coulombic efficiency is stable and higher than 96% even under high current densities, suggesting the excellent stability of $Sn@V_2C$ electrode. Almost 100% reversible lithium storage capacity of 1262.9 mAh g^{-1} is still restored after 90 cycles at the current density of 0.1 Ag^{-1}, implying marvelous rate performance [22]. Facile construction of $SnOx@Ti_3C_2$ composites, where ultrathin SnOx nanosheets (NSs) of 5 nm in thickness are loaded uniformly on the interlayers and/or surfaces of Ti_3C_2 matrix, by hydrothermal method towards efficient lithium storage. The resulted $SnOx@Ti_3C_2$ composites exhibit long-duration cycling stability and superior rate behaviors. Competitively, a large reversible capacity of 540 mAh g^{-1} after 1000 cycles at a current rate of 500 mA g^{-1} [23]. The performance of MXenes (Ti_2CT_x) combined with electrolytic manganese dioxide (EMD) with the ratio of MXene: EMD = 80:20 was examined as anode material for Lithium-ion batteries exhibited 460 mAh g^{-1} capacity after 200 cycles at a current density of 100 mA g^{-1} [24].

Recent reports about the use of MXene as a promising cathode for lithium-ion batteries, facile, universal, and effective strategy to suppress the dissolution of manganese at 55 °C by encapsulating $LiMn_2O_4$ particles in crumpled $Ti_3C_2T_x$ nanosheets using an electrostatic self-assembly process The capacity retention ratio can be improved by 18.3% at 55 °C after 200 cycles at 2 C [25].

3.2 Supercapacitors

The recently reported applications of MXene related to supercapacitor includes the synthesis of tantalum carbide MXene sheets by etching the intermediate "aluminium" from the parental Ta_4AlC_3 MAX phase using hydrofluoric acid. The tantalum carbide MXene showed cyclic stability of 89% over 2000 cycles in the acidic electrolyte (0.1M H_2SO_4) and a high specific capacitance of 120 F g −1 [26].

In another report, the fabrication of a flexible aerogel composed of reduced graphene oxide (rGO) and delaminated titanium carbide (Ti_3C_2) sheets prepared via room temperature interfacial gelation route and successive reduction of GO at Zn surface. The vacuum dried composite aerogel showed high areal capacitance of 171.4 mF cm^{-2} at a current density of 1 mA/cm^2, cyclic stability of 96% over 1500 cycles at a current density of 3 mA/cm^2 [27].

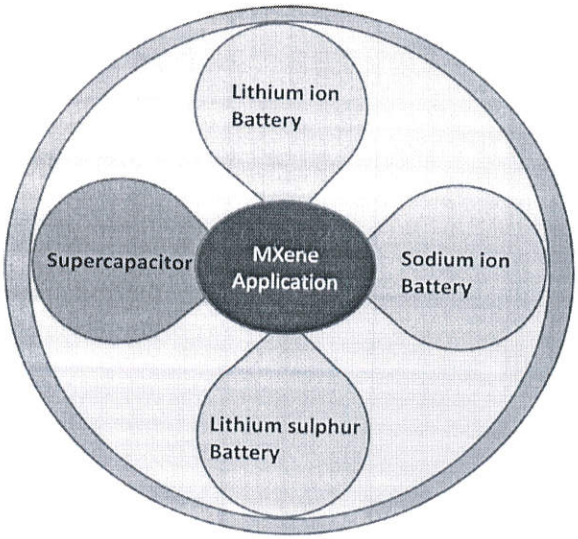
Guo et al. reported the preparation of a composite electrode made up of 2D delaminated Ti_3C_2 sheets (d-Ti_3C_2) and 3D Ni foam (NF) by electrostatic self-assembly. In this electrode, d- Ti_3C_2nanosheets are adsorbed on the surface of the 3D Ni foam skeleton structure, eliminating the need for insulative polymer binders. The self-assembly strategy endows d-Ti_3C_2/NF composites with a unique 2D/3D structure that possesses the merits of excellent conductivity, sufficient active sites, high charge transfer efficiency and short ions diffusion path. d-Ti_3C_2/NF composite electrode exhibits a high specific capacitance up to 654 F g^{-1} at 1 A g^{-1} and good cycling stability. An asymmetrical supercapacitor with d- Ti_3C_2/NF composite as a positive electrode, bulk Ti_3C_2 (b- Ti_3C_2) as a negative electrode, and 6 M KOH as an electrolyte exhibit a maximum energy density of 18.1 Wh kg −1 (at 397.8 W kg −1) and excellent cycling stability 80.6% after 5000 cycles [28].

In another recent study wang, et al. have provided the high rate performance and excellent cycling stability of V_4C_3 MXene electrodes mainly attributed to the high electronic conductivity (1137 Sm^{-1} at 300 K) They have prepared 2D multi-layered V_4C_3 MXene by selectively etching Al from V_4AlC_3 and it shows a high capacitance of 209 F g^{-1} at 2 mV s^{-1} scan rate, good rate performance, and stable long cyclic performance with a capacitance retention rate of 97.23% over 10,000 cycles at 10 A g^{-1} current density in 1 M H_2SO_4 electrolyte [29] .

4. Limitations of MXene

There is a need for a simple, low-cost, mild, hazard-free, synthesis route of MXene to be developed as a need of time for practical applications in various fields. Though Florine salts with mild acids combination are way milder than HF strong acid etching method, however, the results are not yet satisfactory as the morphology still shows defects that affect the charge storage capacity. The charge store mechanism between the MXene layer needs to be understood and requires more effort. The stability is an essential property of MXene that need to be investigated to utilize MXene in various applications Fields.

5. Recent trends



Although investigations on MXenes have just begun in the last decade, MXene materials have shown great potential to work as electrode candidates for effective energy storage. MXene is considered a satisfactory material used in energy conversion and storage devices like supercapacitors, lithium-ion batteries Sodium-ion batteries, lithium sulp and solar cells, catalysis, sensors, water purification and also in the biomedical field. For future applications, more efficient synthetic strategies are necessary while doping strategy showed the impressiive The recent experimental achievements on MXene anodes are impressive, and we believe that more MXene materials can be realized shortly. Opportunities and challenges exist simultaneously. We hope that researchers will tackle the challenges and will explore these new and exciting materials in various fields.

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Photocatalytic degradation of methyl orange by Eu doped SnO_2 nanoparticles

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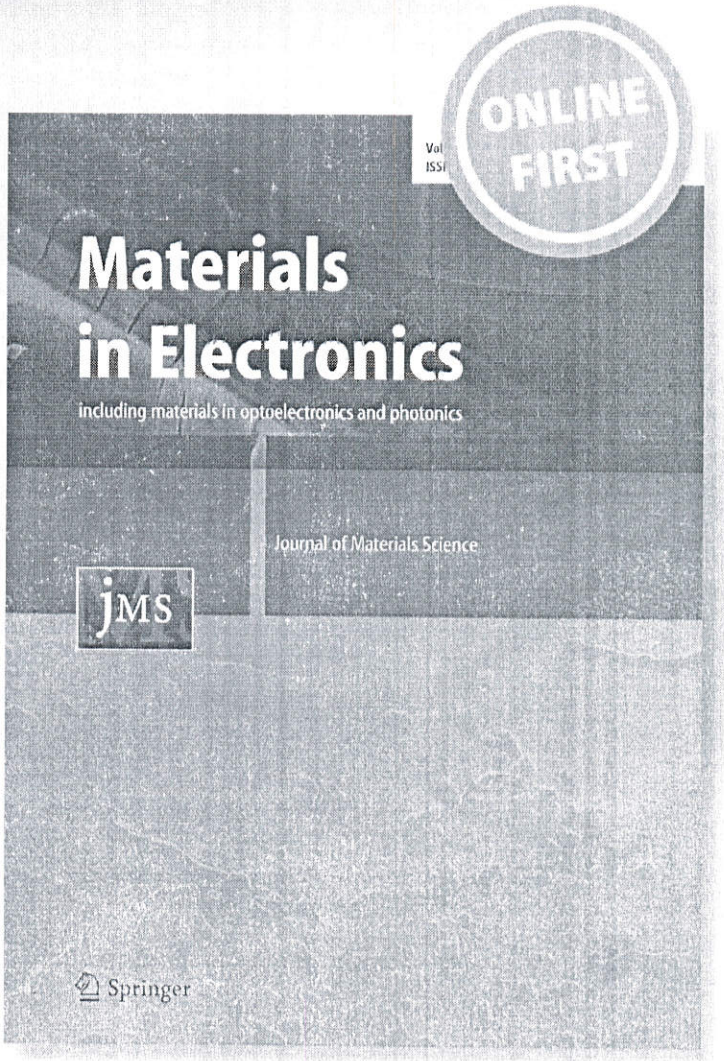

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Photocatalytic degradation of methyl orange by Eu doped SnO_2 nanoparticles

T. T. Bhosale[1,2] · A. R. Kuldeep[1] · S. J. Pawar[3] · B. S. Shirke[2] · K. M. Garadkar[1]

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Abstract

An eco-friendly approach was adapted for the synthesis of Eu doped SnO_2 nanoparticles (NPs) by using aqueous leaf extract of *Calotropis gigantea*. The attempt was made to see the effect of Eu content in SnO_2 NPs on photocatalytic degradation of methyl orange (MO). The characterization of synthesized NPs was carried out by applying different techniques such as diffuse reflectance spectroscopy fourier transform-infrared spectroscopy, X-ray powder diffraction (XRD), high resolution-transmission electron microscopy, field emission-scanning electron microscopy, energy dispersive X-ray analysis and photoluminescence spectroscopy. The XRD results confirmed, the polycrystalline nature and tetragonal rutile phase of Eu^{3+} doped SnO_2 NPs. Bandgap of pure SnO_2 is 3.1 eV which is reduced to 3 eV for 0.1 mol% Eu^{3+} hence doping is responsible for bandgap narrowing. Consequently, up to 90% photocatalytic degradation of MO by 0.1 mol% Eu^{3+} doped SnO_2 takes place within 3 h under UV–Vis light($\lambda = 365$ nm). It is noted that doping of Eu enhances the efficiency of MO by 10%.

1 Introduction

Waste effluents from dye industries, tremendous use of pesticides and fertilizers in agricultural processes and their disposal led to increasing in the number of various organic pollutants in the natural water bodies. Most of these organic pollutants are non-biodegradable and by anaerobic degradation may produce carcinogenic intermediates [1]. Advanced oxidation process (AOP) using semiconductor photocatalyst is one of the best treatment for the industrial dye effluents [2].

In recent years, the research has been focused on the green synthesis methods for the production of metal oxide nanoparticles due to their novel, environmental friendly and inexpensive approach [3, 4]. The metal oxide nanoparticles such as TiO_2 [5, 6], ZnO [7, 8] and SnO_2 [9] have been synthesized by green route, which are used as photocatalyst in the degradation of various dye pollutants. The semiconductor materials have attracted much more attention for photodegradation of the dye effluents from industries. Most of these semiconducting materials have wide bandgap hence they are capable to degrade the organic pollutant only in UV light. Additionally, by using large bandgap semiconductor as a photocatalyst, the rate of recombination of electron–hole pairs enhances which reduces the activity of photocatalytic reaction. All these difficulties can be overcome by doping the semiconductor with rare earth elements. A suitable dopant like rare earth elements creates quasi-stable energy states within the bandgap energy. Besides, doping of appropriate ions into the host lattice increases electron trapping owing to their higher surface sites and the difference in bandgap energy leads to an increase in photocatalytic activity [10].Europium ion with $4f^7$ electronic configuration usuallly exist in the form of triply ionized ion (Eu^{3+}),which shows fast oxygen ion mobility and predominant catalytic properties [11].

SnO_2 is a well-known wide bandgap (3.6 eV) n-type semiconductor which has been extensively used for various applications like gas sensors [12], transparent conducting electrodes [13], photocatalyst [14], Li-ion battery anode materials [15], dye-based solar cells [16] and optoelectronic

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Cobalt ferrite nanoparticles for supercapacitor application

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S. J. Pawar, S. M. Patil, M. Chithra, Subasa C. Sahoo, and P. B. Patil

temperature. Cyclic voltammetry studies were measured between the potential range from -0.1 to 0.6 V at scan rates from 5 mV/s to 100 mV/s.

3. RESULTS AND DISCUSSION

Figure 1(a) shows the XRD pattern of the $CoFe_2O_4$ nanoparticles. All the observed peaks were indexed to cubic cobalt ferrite spinel structure using JCPDS data (Card No- 221086). The FESEM micrograph shown in Fig. 1(b) reveals the roughly spherical MNPs with average particle size ~23 nm.

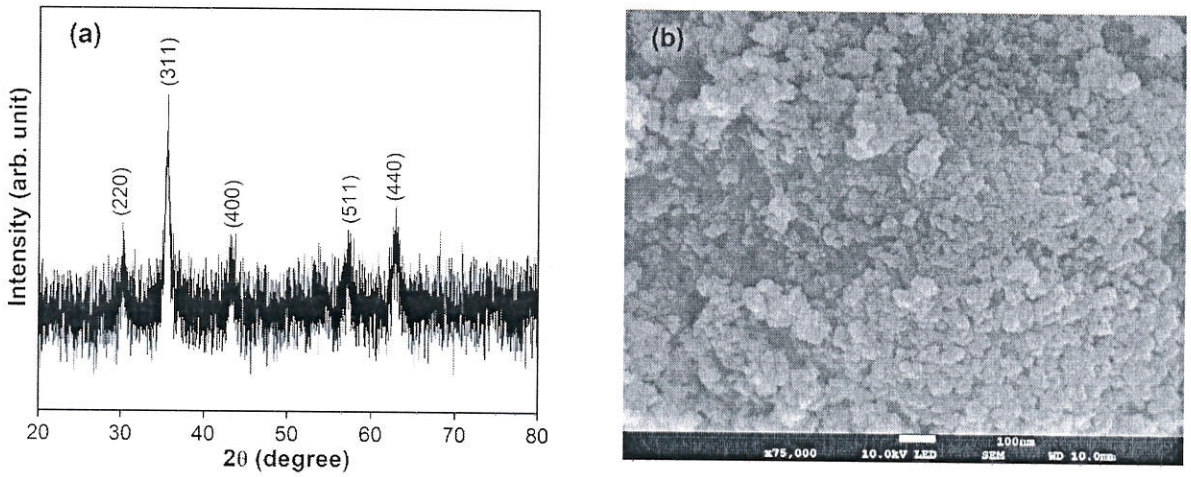

FIGURE 1. (a) XRD pattern, and (b) FESEM micrograph of $CoFe_2O_4$ nanoparticles

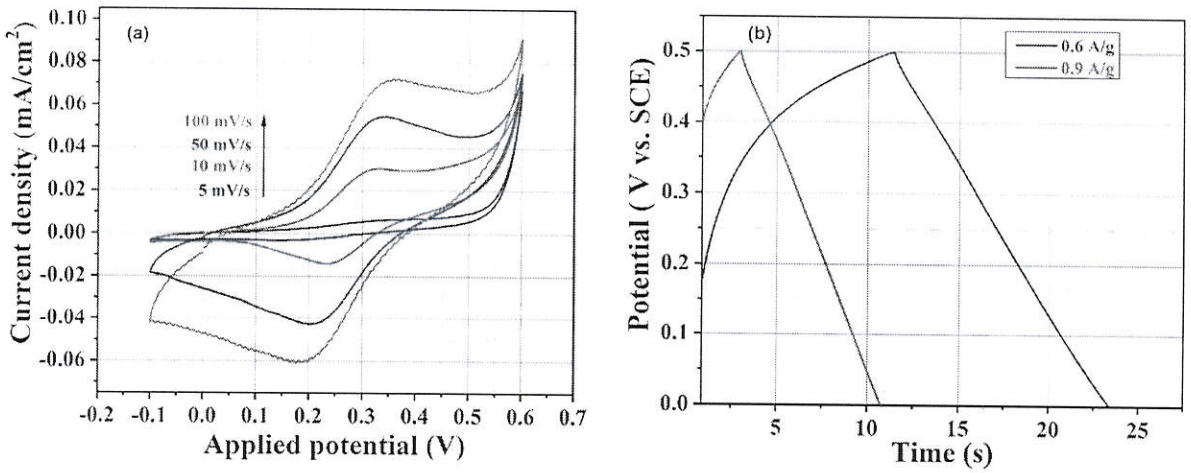

FIGURE 2. (a) CV curves at various scan rates, and (b) charge-discharge behaviors at different current densities of $CoFe_2O_4$ nanoparticles

The electrochemical performance and charge storage mechanism of the $CoFe_2O_4$ nanoparticles were investigated using cyclic voltammetry. The cyclic voltammograms (CV) of $CoFe_2O_4$ nanoparticles at various scan rates (5–100 mV/s) in the potential range of -0.1 to 0.6 V are shown in Fig. 2(a). The shape of the CV curves is deviating from the ideal rectangular shape, suggesting that the capacitance of $CoFe_2O_4$ nanoparticles are mainly pseudocapacitive

Room temperature synthesis of nanocrystalline $CuInSe_2$ thin films by electrodeposition

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Chavan Navnath K., Pawar Sachin J., and Nimat Rajesh K.

Room Temperature Synthesis of Nanocrystalline $CuInSe_2$ Thin Films by Electrodeposition

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Abstract: Nanocrystalline copper indium diselenide ($CuInSe_2$) thin films were synthesized by one step electrodeposition technique at room temperature. The XRD pattern reveals the chalcopyrite structure of $CuInSe_2$. The SEM image shows the cauliflower nature of nanocrystalline $CuInSe_2$ with crystallite size of 50-100 nm. The EDS analysis confirms presence of copper, indium and selenium elements. UV- Vis analysis shows optical band gap of 1.2 eV and FTIR study shows the peaks at 2348.87 cm^{-1} and 2853.17 cm^{-1} corresponding to polycrystalline $CuInSe_2$

Keywords: Room temperature, one step Electrodeposition, $CuInSe_2$ thin films.

INTRODUCTION

One of the most important renewable energy is the solar energy because it's clean, environmental friendly, endless availability and cost-free. This energy is converted into electrical energy which is most required energy of the world. Copper indium diselenide (CIS) is a promising material which has direct band gap, high absorption coefficient, high thermal stability and long term opto-electronic stability. CIS material has less toxicity than other semiconducting material.

There have been several methods to synthesis CIS material such as chemical bath deposition, solvothermal, hot injection method, thermal decomposition, arrested precipitation technique, spray pyrolysis, sputtering, co-evaporation, and pulse laser deposition. In the present work we have synthesized $CuInSe_2$ thin film by one step electrodeposition method at room temperature. Electrodeposition has various advantages like low cost processing, high deposition speed, no vacuum systems requirement and no use of toxic gases. Further the structural, morphological and optical properties of $CuInSe_2$ thin films have been investigated.

EXPERIMENTAL

One step electrodeposition technique has been carried out in an aqueous solution at room temperature with three electrode system where graphite as a counter electrode, saturated calomel electrode (SCE) as reference electrode and stainless steel and fluorine doped tin oxide (FTO) substrates as a working electrode. The concentrations of precursors were chosen to be 8 mM $CuSO_4$, 10 mM $In_2(SO_4)_3$ and 50 mM SeO_2. All solutions were adjusted with conc. H_2SO_4 to pH 1.5 and 1M K_2SO_4 was used as supporting electrolyte.

X-ray diffractometry was used to determine formation and crystallinity of the ternery compound $CuInSe_2$. This was done using X-ray diffractometer model PW-3710 with Cu Kα radiation at the wavelength 1.5406 angstrom. Surface morphology and elemental composition were analyzed by using a field emission scanning electron microscope (FE-SEM JEOL-JSM 6360, Mia-3, Tescan, Brno- Czech Republic) attached with an energy dispersive spectrometer (EDS). The optical band gap of the $CuInSe_2$ thin film was determined by UV-Vis spectrophotometer within the range of wavelength 350 nm- 1100 nm. Fourier transform infrared FTIR (model FT/IR-4600typeA) used for optical study.

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The EDS spectrum of the $CuInSe_2$ thin film, displayed in Fig. 3 confirms that presence of Copper, Indium and Selenium elements in the film.

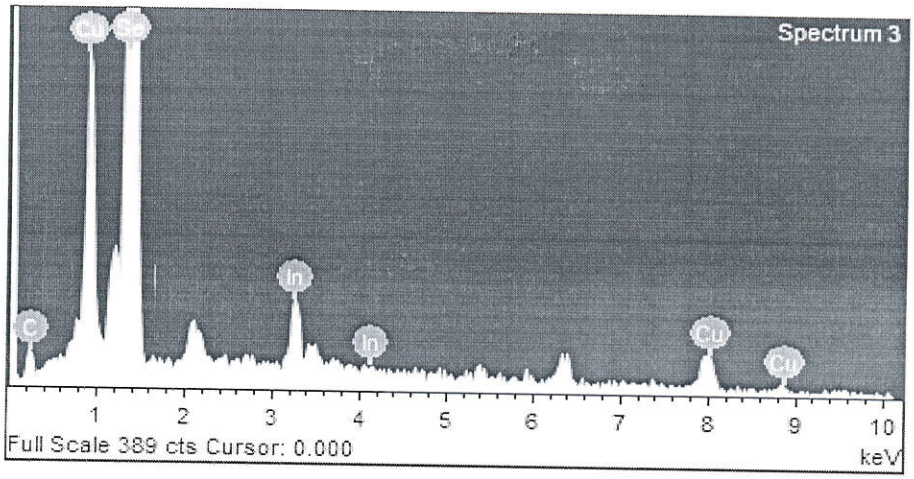

FIGURE 3. EDS spectrum recorded for the $CuInSe_2$ thin film

3. The Optical Performance of $CuInSe_2$

The optical absorption spectrum for as-deposited and was recorded in the wavelength range from 350-1100 nm at room temperature on a UV-vis spectrophotometer. The nature of obtained data shows the direct allowed type of transition and band gap was found to be 1.2 eV (Fig 4). The absorption coefficient for the film was found of the order of 10^4 cm^{-1}.

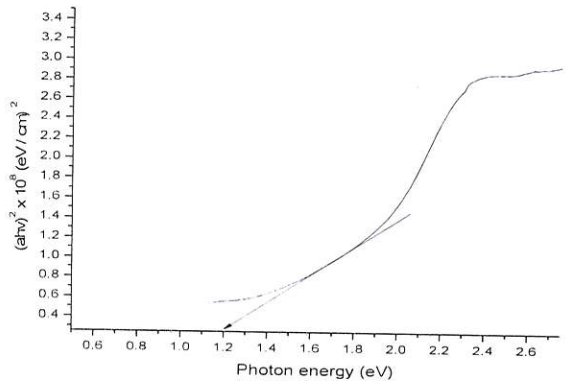

FIGURE 4. Optical absorption spectra to determine band gap energy (Eg) of $CuInSe_2$ thin film

The FTIR spectra (Fig. 5) shows the peaks 2348.87 cm^{-1} and 2853.17 cm^{-1} corresponding to $CuInSe_2$. This leads the broadening of valence band high flow rate of free electrons and thus CIS crystal structure becomes polycrystalline thin films.

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Declining sex ratio : Facing a Demographic Crisis, The study of sex ratio of Kolhapur District

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Dr.M.A.Patil

Abstract

India have consistently recorded the decline in sex ratio. States like Maharashtra, Gujarat, Punjab, Himachal Pradesh and Haryana have recorded more than 50 point decline in the child sex ratio. The main reason of this skewed sex ratio is female foeticide.. India has one of the highest female foeticide incident in the world. At least 12,991,043 sex-selective abortions had taken place in India between 2000 and 2014.It takes daily average of sex selective abortion to 21332. The aim of this research paper is to study the initiatives taken by the Kolhapur district officials to curb the female foeticides in a district as it had declining sex ratio and it got worsened by the year 2001 i.e 949 females per 1000 males. The sex ratio for the district in 0- 6 age group is 839. This is a tickling bomb for the residents and administrators of the district. To overcome the situation the administratiors started lots of programs like Installation of Silent Observer Device to track the sonography machines,Beti Badhao.Beti Padhao Abhiyan,Janani Shishu suraksha Karyakram and strict implementation of PCANDT Act. As a result the sex ratio had increased in the 2011 census(957) .

Key words:Declining sex ratio ,Female foeticide,Slilent Observer,Beti Bachao,Beti Padhao Abhiyan,Janani shishu suraksha karyakram,PCPNDT Act.

Introduction

Sex Ratio is the number of females per 1000 males. This indicator shows the gender imbalance in an area. The figures of sex ratio is also indicates the status of women in society and their health.In many countries sex ratio is negative in terms of number of girls. That means there are less number of female than male . According to the United Nations Population Fund,117 million girls demographically go "missing" every year...

Girls are not vanished overnight.The change in sex demographics is mainly due to the ire to having a male child. This desire gives birth to the sex selective abortions and the foeticide become a normal incident in our society. Naturally the percentage of he male child is more than the female child but the difference in number of girls

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and boys are getting wider and wider as our society enforces a women to give birth to boy rather than girl. Though there are so obligations on sex selective abortions by the governmental acts but still the number shows the evidences of female foeticide. Foetal sex determination and sex selective abortion by unethical medical professionals has today grown into a Rs.1,000 Crore industry, Traditionally families across the country have preferred boys as they are seen as more able to provide financial stability. Technology and money are also exacerbating the problem. They say female foeticide is being compounded by readily available,and relatively inexpensive, ultrasound technology of the increasing wealth of India's middle class.

Since 1991, 80% of districts in India have recorded a declining sex ratio with the state of Punjab being the worst. states like Maharashtra, Gujarat, Punjab, Himachal Pradesh and Haryana have recorded more than 50 point decline in the child sex ratio.This skewed Sex ratios have moved beyond the states of Punjab,Haryana,Delhi,Gujarat and Himachal Pradesh.The decline in child sex ratio in India is evident by comparing the census figures. In 1991, the figure was 947 girls to 1000 boys. Ten years later it had fallen to 927 girls for 1000 boys. (Unicef. in / Press Releases/227/ female foeticide In India .)

India has one of the highest female foeticide incident in the world. The female child population in the age group of 0-6 years declined from 78.83 million in 2001 to 75.84 million in 2011. During the period of 1991-2011, the child sex ratio (0-6 years) declined from 945 to 914. According to the population Research Institute, at least 12,991,043 sex-selective abortions had taken place in India between 2000 & and 2014.It takes daily average of sex selective abortion to 21332.

The aim of this research paper is to study the initiatives taken by the Kolhapur district officials to curb the female foeticides in a district as it had declining sex ratio and it got worsened by the year 2001. Kolhapur is one of the prosperous districts of Maharashtra in all the natural resources but the data from the census 2001 reveal that this prosperous district have a very bad child sex ratio as compared to the other districts in Maharashtra. This was a tickling Bomb for the district .Shockingly the developed tahsils like Panhala shows child sex ratio lesser than state average as development of infrastructure ,including better roads ,has improved peoples access to illegal sex determination test and abortions. This alarming

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situation woke up the residents and officials in the district and the major actions were taken by the officials in time which results into the improvement of sex ratio in consequent census.

Objectives -

It is an retrospective study of changing sex pattern in Kolhapur district.

1) To study and analyze the sex pattern in the district from 2001 to 2011 and after 2011

2) To study the measures taken by administration to stop the female foetiicide.

Data Collection

The present study is primarily based on the secondary data. The data collects from various sources like decennial census reports, National family household surveys, Socio-economic review of a district, various articles and news papers.

Research Methodology

The data have been analyzed for the sex ratio as the number of females per 1000 males. The data collected from various sources has represented in the tables and the comparison between the two are presented with the help of graphs.

Study Area

Kolhapur is one of the oldest city in Maharashtra having a very glorious history. The district is situated in the southernmost part of the Maharashtra having an area of 7,685,00 sq.km. The physiography of the district may be grouped into 3 parts with The Sahyadri hills a) The Plateaux and 3) The basin Krishna River. The climate of Kolhapur is generally temperate. . According to the census 2011 the district has 3,876,001 total persons,from which 1,980,685 are males and 1,895,343 are females .Approximately 88.57% population is literate. In The ruin of Chchatrapati Shahu Maharaj Kolhapur became a socio-economically active centre . He touched the every aspect of social and economical life of his subjects and from then district is known for its advancement in economical and social achievement and also

ISSN: 0474-9030
Vol-68-Issue-33
February-2020

known as 'Purogami jilha'. District derives its importance from its past political associations and its present positions as a great commercial, religious, cultural and educational centre.

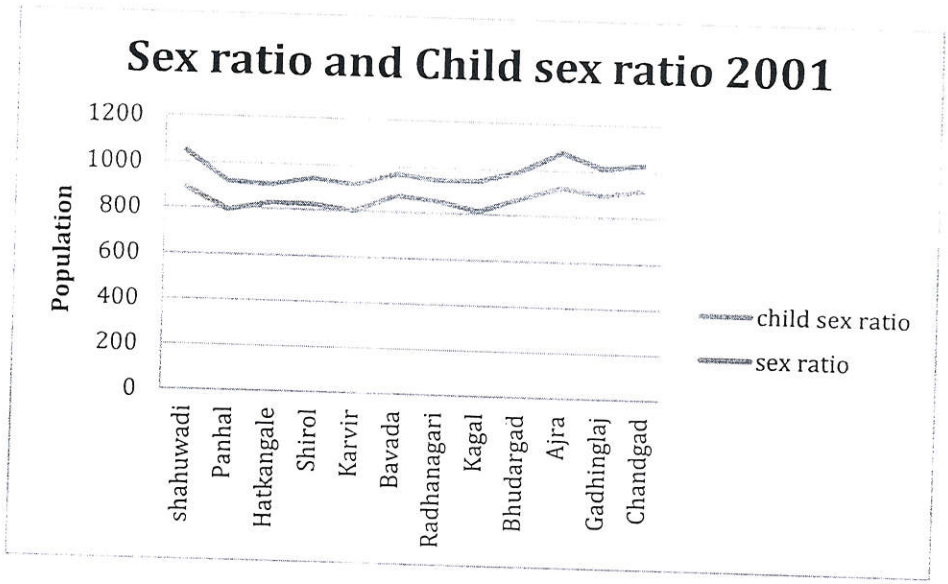
Statement of Problem

2001 census recorded sex ratio of 949 females per 1000 males .In the year 2001 the sex ratio of Kolhapur district is fluctuated between 975 and 946 exhibiting generally decreasing trend. In the rural areas in different census years the district figures were found always lower than the state figures.The sex ratio for the district in 0- 6 age group is 839 , Shahuwadi bavada, Radhanagari, Bhudargad, Ajra, Gadhinglaj.and Chandgad have higher sex ratio in 0-6 age group.Remaining Tahsil Panhala Hatkanangale, Shirol, Karvir and kagal have lowest sex ratio as compared to district sex ratio 839. The decline in child sex ratio is the like a warning bell to the administration.

Serial no.	Name of Tahsil	Total	Sex ratio for 0-6 age group
1	Shahuwadi	1049	892
2	Panhala	921	795
3	Hatkanangle	911	829
4	Shirol	941	827
5	Karvir	917	803
6	Bavada	969	874
7	Radhanagari	946	855
8	Kagal	949	816
9	Bhudargad	955	874
10	Ajra	1082	926
11	Gadhinglaj	1016	896
12	Chandgad	1033	921
13	**District Total**	**949**	**839**

(Source: District census Handbook,2001)

ISSN: 0474-9030
Vol-68-Issue-33
February-2020



(Source: District census Handbook,2001)

If we go deep into the causes of this decline, we found that the increasing rate of female foeticide is one of the main cause of the situation. The increase in wealth of middle class population leads to the increase in sex selective abortions and it is aided by the easily available medical facilities in a district.

In a bid to encourage families to have girl children, prevent female foeticide and educate the girl child, the government launched Beti Bacho, Beti Padhao campaign . It also launched several conditional cash transfer schemes such as Balika samriddhi Yojana and Dhanalaxmi Scheme.

There are some initiatives taken by the administration to tackle the problem . Mr.Laxmikant Deshmukh , the then collector of Kolhapur district had took a great efforts like installation of "Silent Observer" device ,strictly implementation of an act regarding to Prenatal sex diagnostics etc, to handle the situation. .

Though the administration with help of government had took lots of efforts and started so many new projects and schemes ,we have discussed here some of the actions proved to be great modifier to increase the situation.

1) The installation of Silent Observer Device
2) Beti Bachao Beti Padhao Abhiyan

ISSN: 0474-9030
Vol-68-Issue-33
February-2020

3) Janani - Shishu Suraksha Karyakram
4) PCPNDT Act

Other than that the increasing status of women with respect to her education and increasing percentage in work participation is also a modifier to women's mentality towards the girl child. Other than that the local government e.g.Jilha parishad had also started some programs like Laxmichi Pawale,Financial assistance to the women, felicitate a girl child with presents. Chirayu Yojana to decrease infant mortality rate etc.

1)The Installation of Silent Observer Device

The census figures for 2001 were alarming tickling bombs for Kolhapur residents.As we discussed earlier the root cause of declining sex ratio was female foeticide. Panhala is a semi-urban tahsil of Kolhapur.It has a birth ratio that is worse than the state average of Kolhapur. In 2001 census there are only 729 girls for every 1000 boys in panhala. Tracking of the incidents of female foeticide and controlling it was the main challenge before the government .To accomplish this purpose the device named as 'silent observer had been invented. This divice was used to monitor the activity of doctors at sonography centres, Silent Observer device had installed in hundreds of ultrasound machines in clinics and hospitals across the district.Approximately 240 ultrasound machines in -area have been fitted with silent observer to sonography centre.

The silent observer records sonography imagery in real-time and then links it to details of the unborn child and its parents on an online portal called save the baby Girl.It is a pilot program firstly launched in Kolhapur district. The project was launched by the then district magistrate Laxmikant Deshmukh in April-May 2009,data from all sonography centre were collected in district.

As a result average child sex ratio in Kolhapur has increased from 845 to 849 within years. Four to Six sonography centres have been reportedly shut down after Installation of Silent Observer and there has been a 15-20% hike in reporting of sonography cases by doctors in Kolhapur. The result of this initiative was an increase in sex ratio from 839 in 2001 1 to 878 in 2010.

ISSN: 0474-9030
Vol-68-Issue-33
February-2020

2)Beti Bachao Beti Padhao

The Kolhapur district is one of among 10 in Maharashtra to be selected for the Bharat Beti.Bachao Beti Padhao Abhiyan, an initiative of the union ministry of women and child development to combat the gender imbalance in India. The Collectors and commissioners of the district have to implement the program. Recruitment of other officers were also done in health centers . The main objective of the program was to measure the baseline data of child sex ratio and sex ratio at birth and mapping of all ultrasonography machines. So the periodical data collection had been done which was useful to know the ground reality and also helped the government and administration to plan the action plan.

3)Janani shishu Suraksha Karyakram -

About 67000 women die in India every year due to pregnancy related complications . About 30 lakh new born that die within four weeks of birth, about 7 lakh die within the first week of their birth(Press Information Bureau, Government of India) So to reduce the both maternal and infant deaths new scheme was launched by the government.

The scheme entitles all pregnant women delivering in all public health institutions to absolutely free and no expense delivery including caesarean. It also provides free drugs and consumables , free diet, free diagnostics and free blood. This programe helps to minimize the risk of maternal and infant deaths. According to the National Family Household survey 4 about 5.8 percent mothers in a district had received the financial assistance under this program .

4)PCPDNT ACT

Pre-natal Diagnostics (Prevention and Prevention of Abuse) Act 1979 was implemented to control the abuse for prenatal sex diagnosis. The act was modified in 2003 to target the medical professions. Prevention of Gender Selection Act 1989 also implemented to preventing gender selection and preventing of prenatal and postnatal diagnostics. Under this act control has been set up on the many fractures and distributors of sonography machines. It is obligatory to the manufacturers and distributors to inform the appropriate authorities of

ISSN: 0474-9030
Vol-68-Issue-33
February-2020

state when purchasing and selling machines .For this purpose the district level squad has been done for the inspection a Sonography centers, and many more provisions.

Laxmikant Deshmukh the the collector of the district had illustrated the power of Act.However Major reason for increase in sex ratio at birth in rural areas of Kolhapur district were changes made in PCPNDT Act and its strict implementation.

Changing Scenario in the District -

The positive consequences of the efforts taken by the government have fructified into 2011 census. The sex ratio of Kolhapur district has increased from 957 in 2011 to 978 in 2014-15. The increase in sex ratio is due to the microscopic planning at village level. The sex ratio was increases as we had concentrated on efforts required to minimize the use of sex determination from the village level to city level. Every couple is hacked by keeping tab on sonography centers in district. The NFHS4 (2015-2016) report shows that there has been Consistent increase in the sex ratio figure since last five years. According to the report of National family household survey -4, the sex ratio of the total population is 978. Maharashtra have brought down IMR,TFR and MMR.(National health profile -2018)

Conclusion

Female foeticide is one of the big problem of the Indian society. The desire to having a male child restrain the birth of unborn girl child. Country shows great economical progress but at the same time there are imbalance in the population of males and females in the country. The situation in Kolhapur district is not other than that. The Progressive and economically advanced Kolhapur district shows a very bad child sex ratio(839) and sex ratio(949) in the census of 2001.By recognizing the seriousness of the situation the local administrative officers illustrates the action plans with the help of governmental acts and schemes to overcome the problem. The programmes like installetion of Silent observer device, Beti Bachao,Beti Padhao Abhiyan,Janani Shishu Suraksha Karyakram and the strict implementation of PCPNDT Act showed the very positive results and the sex ratio within a district had increased from 949 to 957 in 2011 and 978 in 2014-15.

ISSN: 0474-9030
Vol-68-Issue-33
February-2020

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- District Socio-economic Survey

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Geographical Perspective of Changing Climatic Conditions in Pune Division of Maharashtra (1901 To 2013)

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Abstract:- The phenomenon like climate change is not only happen in India but also it is observed World-wide. The Pune division is one of the leading spatial unit on all fronts i.e. agriculture and its allied activities, industry, transportation, commerce etc. But past few years this division has suffering different problems which are arrived due to only changing climatic conditions. The climate change is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time that is decades to millions of years. The present research work flash light on changing climatic conditions of Pune division with using Thornthwaite Moisture Index (TMI). The trends in the annual, decadal and tri-decadal average moisture condition in study area have been studied for the period of 1901 to 2013. The shifting of climatic conditions are analysed with 94 grid points (0.25° × 0.25°) over Pune division. The researchers also examine the of development of annual rainfall (mm) and mean monthly temperature (^{0}C).

Keywords:- *Climate, Change, Moisture Index, Rainfall, Temperature, Pune Division.*

I. INTRODUCTION

As per Intergovernmental Panel on Climate Change (IPCC) usage, climate change refers to a change in the state of the climate that can be identified by changes in the mean and or the variability of its properties and persists for an extended period, typically decade or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the United Nations Framework Convention on Climate Change (UNFCCC) where climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods. According to Indian Meteorological Department (IMD), climate change refers to a statistically significant variation in either the mean state of the climate or in this variability, persisting for an extended period typically decades or longer.

The natural and anthropogenic process mechanisms caused by climate change. These natural factors are tectonic forces, earth orbital changes, ocean currents, solar output and volcanic eruption. The IPCC (2007) concluded with high confidence that anthropogenic warming over the last three decades has had a discernible influence on many physical and biological systems. The causes of climatic changes due to human activities are very significant because it makes more impact than natural incidences or phenomena. The human activities are land use change, deforestation, industrialization, urbanizations, agriculture and the burning of fossil fuels. There is strong evidence that the warming of the earth over the last half-century has been caused largely by human activity (The Royal Society, 2010). The impacts of climatic changes are in the form of rising temperature, precipitation pattern, glaciers melting, sea level rise, biodiversity loss, extreme weather events, water scarcity, threats to human health and food insecurity. Significant changes in physical and biological systems have already occurred on all continents and in most oceans, and most of these changes are in the direction expected with warming temperature (Rosenzweig, 2008).

➢ *Study Area*

The Pune division is located in south-west part of Maharashtra state. It lies between 15^0 45′ N to 19^0 0′ N latitude and 73^0 32′ E to 76^0 15′ E longitudes. The area under study comprises of five districts namely Pune, Sangli, Satara, Solapur, Kolhapur and the whole division has 58 tehsils. The Pune division is bounded by the Aurangabad district to the north and north-east, Thane district encircled by north and north-west. The west boundary of study area delimited by Raigad, and Ratnagiri district, Sindhudurg district enclosed in south and south-west part. The south and eastern boundary surrounded by Goa and Karanataka state and Osmanabad district delimited eastern boundary (fig. 1).

Physiographical, region can be divided in to three parts: hilly, plateau and lowlands. Sahyadrian ranges passes through Pune division; its slope decreases from west to east. In this region temperature varies in the different parts, the average temperature of the study area is 25.62^{0}C. An average annual rainfall in the Pune division is recorded 1239.09 mm. There are major two river basins; it includes Krishna and Bhima. The Pune division has total geographical area about 57, 275 km^2. The study area having 23,449,051 population as per 2011 census and out of the total population of the study area more than 58.76 per cent population has been located in rural areas and remaining population 42.24 per cent are living in urban areas. The population density and sex ratio are 403 persons per km^2 and 953 females per thousand males respectively according to 2011 censes.

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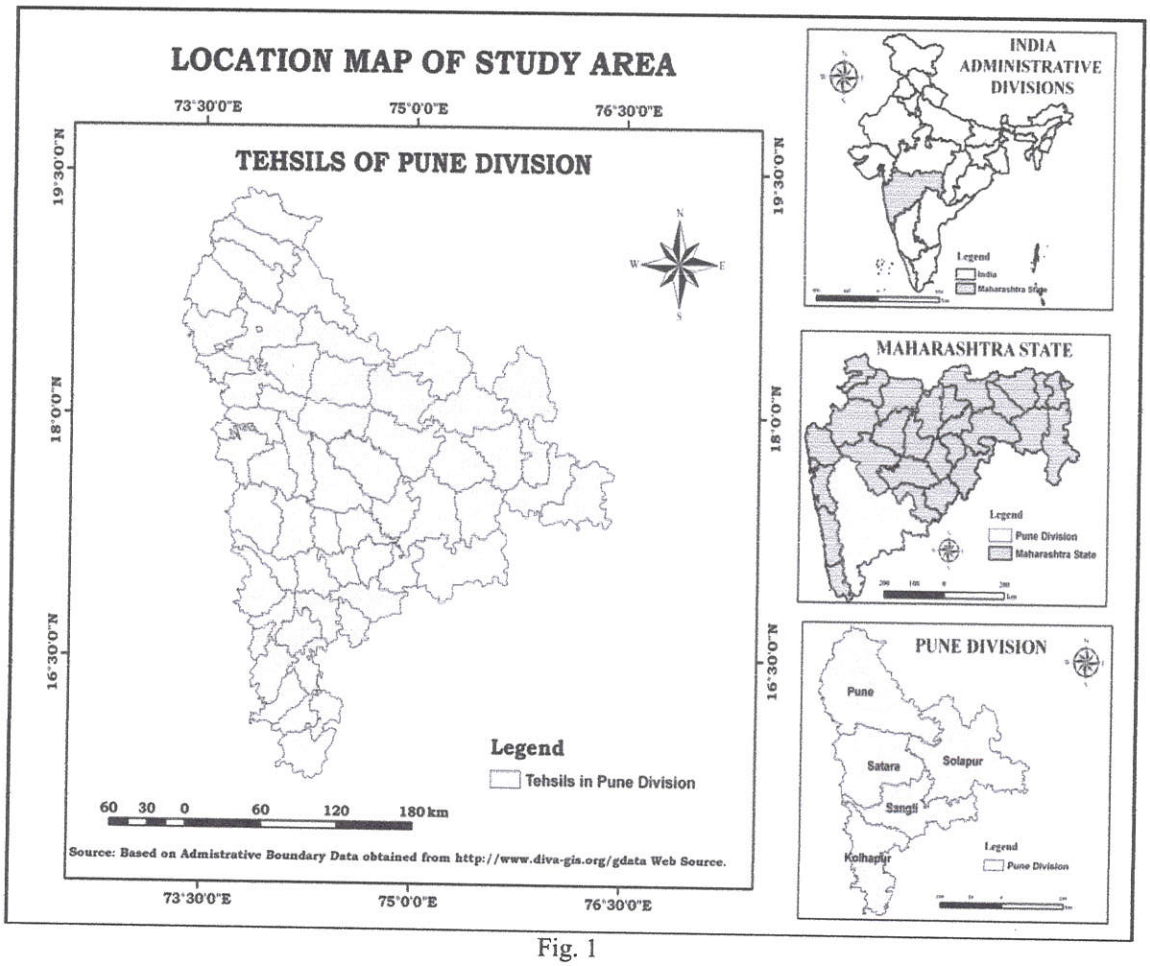

Fig. 1

➢ *Objective*

The main objective of the present research work is to study the shifting or changing climatic conditions of the Pune division of Maharashtra state.

➢ *Data Collection and Methodology*

The present study, month-wise data of temperature and rainfall of Pune division have been taken into consideration. Total, 113 years (1901 to 2013) span of time selected for the study. The data has been collected from secondary sources such as India water Portal (1901 to 2002) and the Global Weather Report (1979 to 2013). The trends of these moisture indexes have shown an annual average, an average of decadal and a tri-decadal average. The Thornthwait's method is used to draw potential evapotranspiration in the Pune division for the period 1901 to 2013 by using temperature and rainfall parameters. In order to study shifts in climate in Pune division, moisture index of Thornthwait's and Marther (1955) have been used. The Potential Evapotranspiration has calculated by Thornthwait's method (1955), which is as below:

$$PE = 1.6\,(10\,t / I)^{a}$$

Where, PE = potential evapotranspiration
t = mean monthly temp in ^{0}C
I = annual heat index ($\sum I$)
I = monthly heat index is equal to $(t/5)^{1.514}$
a = non linear function of heat index, approximated expression,
a = annual rainfall $(0.000000675 * I^3 - 0.0000771 * I^2 + 1.7921 * I + 0.49239)$
Unadjusted PE (e) – obtained is for average 12 hours sunshine and a 30 days month.

The Moisture Index was carried out with the help of Thornthwait and Marther's method (1955). It is as given below:
Humidity Index (Ih) = WS / PE * 100
Aridity index (Ia) =WD / PE *100
Moisture Index (Im) = Ih- Ia
Where, PE = Potential Evapotranspiration
AE = Actual Evapotranspiration
WS = Water Surplus (Water Surplus = the sum of the monthly difference between precipitation (P) and ETp for those months; When P exceeds PE cm).
WD = Water Deficient (Water Deficiency = the sum of the monthly difference between ETp and precipitation (P) for those months; When PE exceeds P cm).

➢ *Shifting of Climatic Conditions in Pune Division*

The shift is measured by the changes in features associated with Moisture Index. Overall climatic is shifting during the last few decades in Pune division. The climatic parameters are studied to knowing the changing climatic conditions. Beside these another more valuable index such

ISSN No:-2456-2165

as moisture index, which will help to confirm the actual shifting of climatic condition. The Thornthwaite Moisture Index (TMI) can be generally described as reflecting the aridity or humidity of the soil and climate, calculated from the collective effects of precipitation, evapotranspiration, soil water storage, moisture deficit and run off (Austroad, 2010). The present work is based on Thornthwaite's Moisture Index Method (1955) to determine the shifting or changing climatic conditions in the Pune division. For this purpose 113 years temperature, rainfall, relative humidity, solar radiation, wind velocity, cloud condition, vapour pressure, crop evapotranspiration, frost condition and wet day frequency etc. climatic factors are considered. Whereas, concern to sunshine data, it is assumed that 12 hours day times (actual sunshine period) and all climatic factors including sunshine 30 day (month) data used for determine the climate type of the Pune divistion.

Decade	Climate Type						
	A	B4	B3	B2	B1	C2	Total
1901-10	10	0	0	0	0	0	10
1911-20	7	0	2	0	1	0	10
1921-30	9	0	0	1	0	0	10
1931-40	9	0	0	0	1	0	10
1941-50	7	1	1	0	1	0	10
1951-60	8	1	1	0	0	0	10
1961-70	6	0	2	2	0	0	10
1971-80	7	0	1	1	1	0	10
1981-90	10	0	0	0	0	0	10
1991-00	7	3	0	0	0	0	10
2001-13	5	4	2	2	0	0	13
Total	85	9	9	6	4	0	113
Climate Shift (%)	75.22	7.96	7.96	6.19	3.53	0	100

Table 1:- The Climatic Conditions in Pune Division (1901 to 2013)
Source: The Global Weather Data (1901 to 2013)

As per Table 1. and Fig. 2, it is observed that in 113 years, there is dominance of Per humid or 'A' type climate in the considered period out of total years 75.22 per cent (85 years) represents per humid climatic type. It also shows up to 1981-90 decade the Pune division has same climatic condition. But after this decade climate type per humid (A) shifting towards B_4, B_3, B_2 and B_1 (Humid) climate types. These categories of climatic type are having shifting frequently 9 (7.96%), 9 (7.96%), 6 (6.19 %) and 4 (3.53%) respectively. It is clearly indicating that climate type of the Pune division is shift from per humid (A) to humid (B_4- B_1) climate.

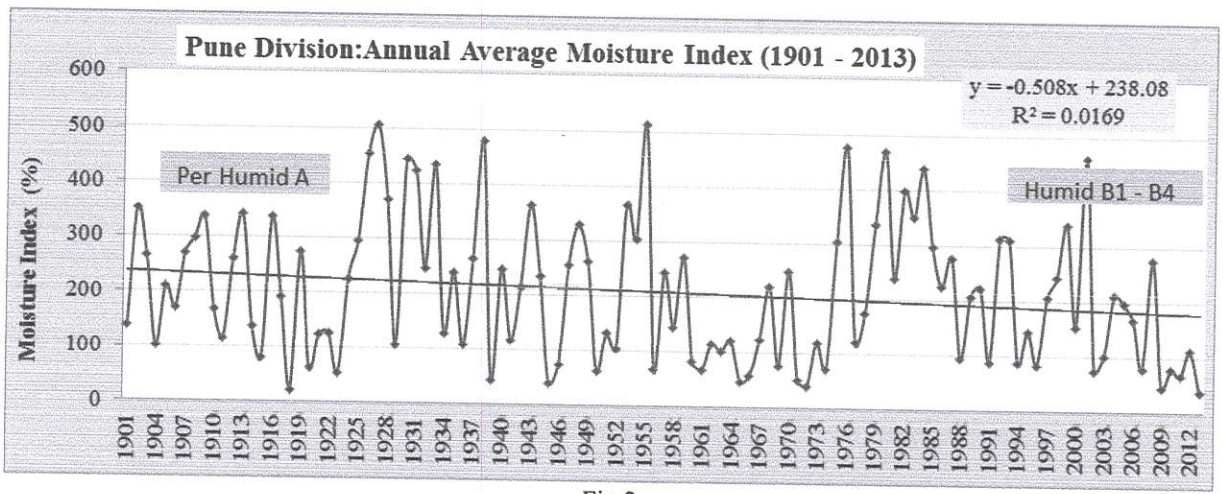

Fig 2

The moisture Index was decrease up to 57.40 percent over Pune division during 1901 to 2013 (Fig. 1.2). The rate of moisture index was 0.508 per year also shows decrease trend in study area. The highest and lowest moisture indexes were recorded (513.76) in 1955 and (22.13) in 1918 respectively. Its indicating, the climate of Pune division is shifted from weather 'A' (per humid) type climate in to drier B (humid) type of climate in the period of 113 years. The researchers have attempts to study the trend of moisture index with implementing annual average values and it is quite clearly reveals the shifting or changing climatic condition. The initial period particularly 1901 to 1925 there were not more changes in moisture index. Thereafter, there were maximum up and downs in moisture index 1926 to

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1957 (Fig. 2). The period 1957 to 2013 represents unevenness in climatic conditions of the study area.

The decadal change of moisture index for initial 25 years (1901 to 1925) was 'A' type (per humid) climate and it is shifting into dry (humid) 'B' type climate (drier humid) during 1925 to 2013. The lower moisture index was reported 118.37 per cent in 1961-1970, these years were under 'B_2' Climate, one year 'B_1' climate and 6 years shows 'A' type climate (fig. 1.3). The moisture index is higher (275.41 %) during 1981-1990, this 9 year under 'A' climate and one year are 'B_4' Climate. The decadal moisture index was decreased by 4.02 per cent from 1901 to 2011. In the decade, 1981 to 1991 represents wet per humid ('A') type climate which is dominant. Over all decadal changes in moisture index values shows that climate type of the Pune division is shifting from per humid ('A') to humid ('B_1-B_4') type climate. The trend of moisture index denoted declining from base decade (1901-10) to the last decade (2001-13).

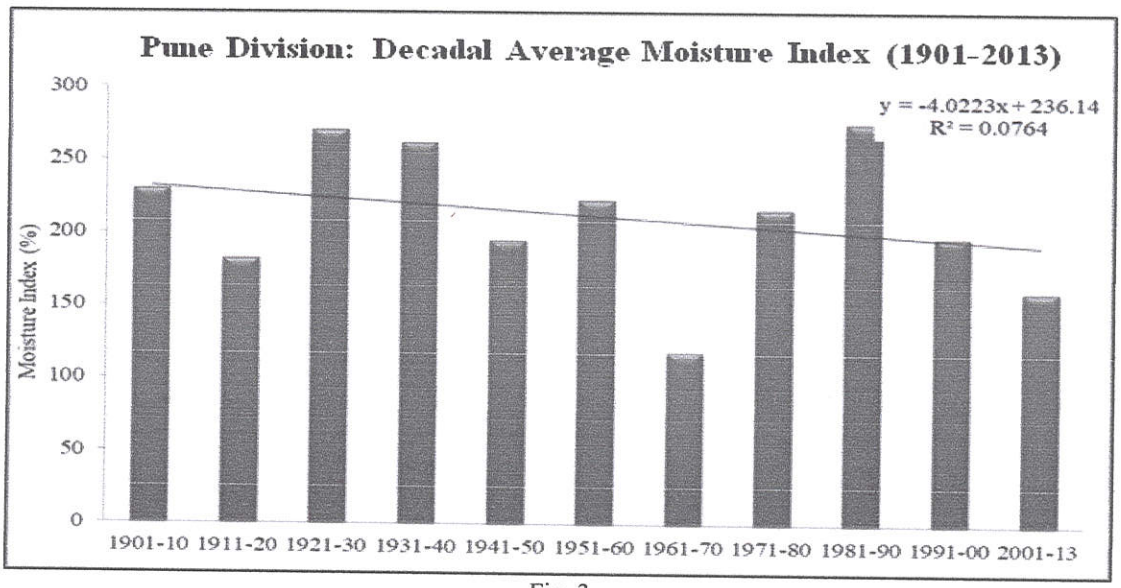

Fig. 3

Tri decadal moisture index is highest in 1901-30 (227.30%) and it is followed by 1931-1960 (226.86 %) remains high which come under 'A' type per humid climate. The next try decadal climate shifted from per humid 'A' to the humid 'B_4-B_1' climate. The moisture index has decreased at the rate of 16.99 per cent per 30 years (Fig. 4). The moisture index was 203.51 per cent in 1961-1990 and the last 20 years moisture index was reported 178.87 per cent which is indicating highly declined trend. It is observed that the decadal moisture index during 1911-20, 1961-70 and 2001-13 were less than the average due to the frequent droughts. Whereas, during 1921-30. 1931-40 and 1981-90, it was more than the average due to over rainfall (recurrent floods). Tri-decadal moisture index during 1901-1960 reveals high. While from 1960 to 2013, it is noticed low because of industrialization, urbanization, deforestation, increase in population, No. of vehicles etc. have been taken place in the study area and all these factors magnificently affecting on climatic conditions of Pune division and along with not only industrial sector of this area is responsible for such condition but also other areas of India and World nations cumulatively support to climate change in study area.

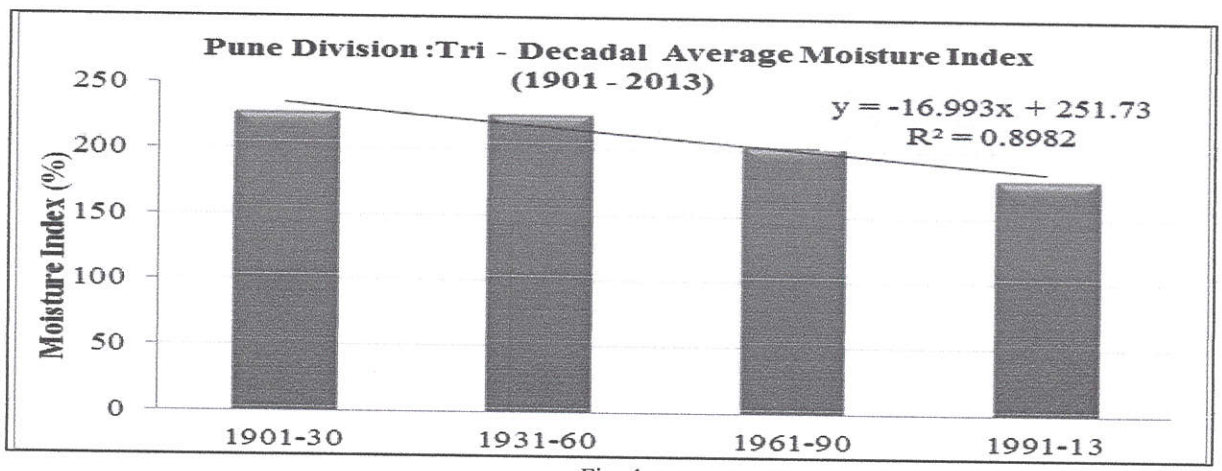

Fig. 4

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II. CONCLUSION

It is concluded that moisture index indicates the shifting of the climate is happened in the Pune division. It is confirm through Moisture index which was decreased up to 57.40 per cent during the period of investigation. It is also clearly reveals that moisture index has been shifted from 'A' climate (per humid) to 'B_1-B_4' climate (drier humid). It means Pune division has been going to different stages of climatic changes i.e wet per humid to drier humid climate during 1901 to 2013.

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सबाल्टर्न इतिहास लेखन प्रवाहाचे इतिहास लेखन (वंचित, जनसामान्यांचा इतिहास)

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श्री. विजयसिंह यादव कला व विज्ञान महाविद्यालय, पेठ वडगाव. जि. कोल्हापूर.

- **प्रस्तावना -**

इतिहास विशिष्ट पध्दतीने लिहिणे, त्या लिखाण्याकरिता विशिष्ट संशोधन पध्दती वापरणे यामुळे इतिहासामध्ये वसाहतवादी, राष्ट्रवादी, मार्क्सवादी, स्त्रीवादी, सबाल्टर्न असे विविध प्रवाह निर्माण झाले. सबाल्टर्न इतिहास लेखन या प्रवाहाने पारंपारिक इतिहास लेखनाला छेद देवून नवी आव्हाने उभी केली. इंग्रजांनी भारतात आपले वर्चस्व निर्माण केल्यानंतर वसाहतिक दृष्टिकोनातून भारताचा इतिहास लिहिला. वसाहतवादी इतिहासकारांनी वसाहतीचे लोकांच्या उध्दारासाठी ही सत्ता त्यांच्यावर लादली आहे या दृष्टीने इतिहासलेखन केले. राष्ट्रवादी इतिहासकारांनी त्याला उत्तर देण्याच्या प्रयत्नातून इतिहास लेखन केले. आमचाही गतकाळ वैभवशाली आहे या दृष्टीकोनातून इतिहास लेखन केले. मार्क्सवादी इतिहासकारांनी वर्गीय जाणीव, आर्थिक दृष्टीला महत्त्व दिले. इतिहासाच्या या विविध प्रवाहाने सबाल्टर्न जाणीवेचा विचार केला नाही, असे रणजित गुहा यांचे मत होते. त्यामुळे त्यांनी सबाल्टर्न इतिहास लेखनाला महत्त्व दिले.

इ.पी. थॉमसन यांनी इ.सन १९६६ साली 'टाईम्स' या नियतकालिकात आपली इतिहास दृष्टी मांडताना 'History from down below' असा प्रयोग केला होता. सबाल्टर्न हा दृष्टीकोन प्रभावशाली समुदायाच्या स्थानावर शोषित अंकित जनसमुहाच्या दृष्टीकोनावर भर देतो.

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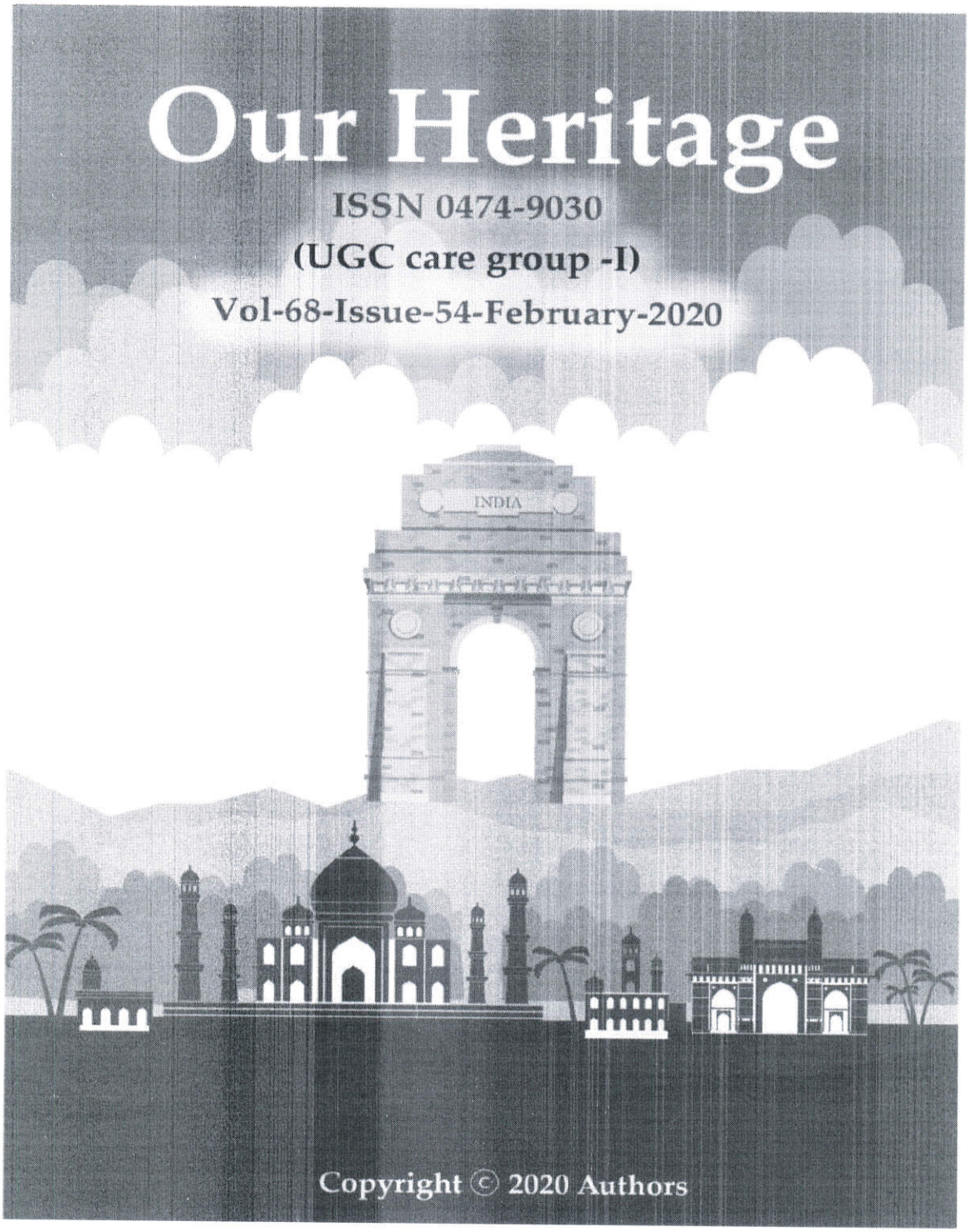

Vol-68 Issue-

Religious Discrimination and Pseudo Spiritual Experiences of Eur Devotees in India with special reference to the novel: Journey to It

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Abstract

From ancient times, India is recognized as a land of spiritual devotion. People from all over the world, especially from Europe visit I search of peace and tranquillity through spirituality as excessive mat and thirst for physical pleasure have led to the mental unrest among the feel that Indian spirituality will lead them to the right path of life and th realize the true meaning and goal of life. However, many time experiences are opposite to the expectations as the false yogis and gur and exploit the innocent European by taking the disadvantage of thei Indian spiritual life. European devotees become victims of r discrimination and experience pseudo-spiritual practices. The pseudo yo just apparently spiritual but in reality, they are sinful money makers business in the name of god. The present research paper focuses on su yogis and gurus who cheat the European people with special referen novel Journey to Ithaca.

Key terms: Pseudo spirituality, Devotees, Yogi, Guru, Ashram, God

Introduction:

The novel Journey to Ithaca revolves around the journeys characters Matteo, Sophie and Laila (Mother) who visit India in se spiritual experiences. Matteo mainly experiences pseudo-spiritual p India during his early period of spiritual search. Matteo has develope attraction for India from his early childhood due to his teacher Fabian introduced him Hermann Hesse's books *The Journey to East* and *Siddha*

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IMPACT OF CHANGES IN SERVICE SECTOR IN INDIA

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Abstract:

The government agencies group industries into four industrial sectors - agriculture (including forestry, fishing, poultry, etc.), mining, manufacturing and services. It can also be classified into three sectors i.e. the primary sector (agriculture, forestry, fishing and mining), the secondary sector (manufacturing) and the tertiary sector (services). Until recently, the service sector was not considered as important as other sectors. However, this view of the service sector changed considerably, particularly in the 1980s, when it was realised that services consist of a large and significant component of modern economies - both industrial and post- industrial. The service sector produces "intangible" goods. Some are well known and already existing viz. government, health, education and some are quite recent viz. communications, information technology, etc. Production of services tends to require relatively less natural capital and more human capital in comparison to agricultural or industrial goods. As a result, the demand has grown for more educated workers prompting countries to invest more in education bestowing an overall benefit to their people. Another benefit of the growing service sector is that by employing fewer natural resources, it puts less pressure on the local, regional and global environment. In the early economies, the service sector was primarily underdeveloped because governments failed to respond to the growing demand for services. However with the shift to market economies, the service sectors have grown rapidly to meet the rising needs of the emerging private sectors. Growth of services is particularly important because it allows these economies to employ a share of the educated labour force. So, in addition to continued public support for health and education, growth of services can help countries preserve the stock of human capital that will be crucial to their development.

Introduction:

Everything that grows also changes its structure. Similarly, a growing economy also changes the proportions and interrelations among its basic sectors— agriculture, industry, and services and between other sectors— rural and urban, public and private, domestic- and export-oriented. The structure of an economy can be seen by comparing its share between the three main sectors—agriculture, industry, and services in the country's total output and employment. Though agriculture is a developing economy's most important sector, but as the per capita income rises, agriculture loses its prominance giving way to the rise in the industrial sector and subsequently to the service sector. These two consecutive shifts are called industrialization and post industrialization (or "deindustrialization"). All growing economies are likely to go through these stages, which can be explained by structural changes in consumer demand and in the relative labour productivity of the three main economic sectors.

Service Sector in India:

The Services Sector constitutes a large part of the Indian economy both in terms of employment potential and its contribution to national income. This sector covers a wide range of activities from the most sophisticated in the field of Information and Communication Technology to simple services pursued by the informal sector workers, for example, vegetable

sellers, hawkers, rickshaw pullers, etc. The following broad grouping of activities can be considered to form part of the Services Sector.

Objective of the Study:

The specific objectives of the current study are:

- To Study the Growth and Development of Service Sector in India.
- To Study the Impact of Service Sector in Indian Economy.
- To study the Economic policy and implementation of Service Sector.

Research Methodology:

The study is based on the secondary data from 1990 to 2012 which were collected from different published sources like: RBI Bulletins, Online Data, Research Journals, Articles, Newspapers, etc.

Contribution of the Service s sector to India's growth and Development:

The services sector scenario in India is complex and is characterized by an uneven development in different types of services. From the global perspective, the growing importance of services sector within the Indian economy cannot be denied. India's GDP growth in 2008–09 was one of the highest in the world which reflected the resilience of the country's growth impulses to a severe external shock and demonstrated the impact India's policy response had on containing the adverse effects of the global economic crisis on its domestic growth. The Services Sector has been the most dynamic sector of the Indian economy, especially over the last ten years. The growth in output in this particular sector in the recent times has mostly come from the rapid development of skill intensive services in the information technology and professional service segments. However not all services have shown equal dynamism in their growth. The star performer has been IT and IT enabled services while other services which do serve as a crucial input to working of the national economy have not developed as expected.

Table 1: Sectoral Shares in GDP (in %)

Year	Agriculture	Manufacturing	Services
1950-51	59.19	13.09	27.52
1960-61	54.74	16.61	28.65
1970-71	48.12	19.91	31.97
1980-81	41.82	21.59	36.59
1990-91	34.92	24.49	40.59
2000-2001	24	20	56
2009-2010	15	28	57
2018-19	17	29.6	54.3

Source: i) Economic Survey ii) Central Statistics office

Table shows that since 1950, the share of agriculture in GDP has fallen drastically by more than two thirds, from 59% to 15%, whereas the share of manufacturing industry has increased from 13% to 28% and the share of services has nearly doubled from 28% to 57%. Growth in the Service Sector has continued to be broad based. Among the three sub-sectors of services: hotels, transport and communication services have continued to boost the sector. Impressive progress in information technology (IT) and IT-enabled services, both rail and road

traffic and quick addition to existing stock of telephone connections, particularly mobiles, have played a key role in such growth.

Impact of Service Sector In Indian Economy:

India has taken substantial steps towards economic liberalization during the last few years, having worked out strategies for bringing about rapid economic development. With the increasing standards in education, which in India is provided free of cost and compulsory till the age of 14 years by the Indian government, there will be increasing demand for educational services. The demand for primary schools, secondary and higher secondary schools, junior degree colleges are also higher, with the increase in population and an awareness of the benefits of seeking education. As the number of students goes on increasing, there is also increasing demand for tuitions, private coaching classes, etc. With the establishment of technical institutes, there is also an increase in demand for the services of professionally qualified people. With the increasing amount of trade and business covered by road, the demand for transport services have increased considerably with an added benefit to various automobile manufacturers as well. Banking services are very necessary to meet the financial requirements of the public. The electric services provide benefits to the society, industry and so on. Adequate hospital services are essential for the well being of the society. Personal care services are also essential to develop a perfect personality and positive image projection of the people. Hospitality services (hotels & restaurants) satisfy their customers through their services in terms of comfort and satisfaction. The tourism industry is also gearing itself to make tourists enjoy the holiday in destinations of their choice, and take them away from the monotonous life of cities. The entertainment industry equally plays an important role towards this end. All these services rendered to the public only signify that they have unlimited potentialities and we have to explore these opportunities and tap them for our benefit.

Economic Policy and Implementation of Service Sector:

Several major economic and political changes occurred during the 1970s and 1980s, which affected the developing countries and paved the way for the implementation of IMF sponsored Structural Adjustment Policies (New Economic Policy) in India in 1991. New Economic Policy of 1991 includes globalization, liberalization and privatization. It is well known that from 1951 to 1991, Indian policy makers struck to a path of centralized economic planning. Post 1991, there were several measures undertaken by the government to develop services sector. Several other promotional measures were taken by the government to sustain the growth of the services sector. For example, having realized that in knowledge intensive world, driven by IT, integration with the global economy cannot take place without making quality telecom services accessible at affordable prices. A large number of steps like launching of national Telecom Policy (1999), Broad Band Policy (2004) etc. were undertaken. In addition to this, a number of promotional measures have been taken up in IT and ITES segment, tourism, banking and insurance and real estate sectors.

Main Findings:

There is no doubt that the service sector is by far the largest sector in the Indian economy.

1.The service sector contributes some 80% in value added terms and 81% of employment.

2.The sector is diverse ranging from highly technical services, such as in developing computer software, to the more mundane, such as hospital cleaning.

3.The service sector employs a wide range of staff, including professionals from a large number of academic backgrounds.

4.It is the sector which will provide the greatest opportunities in employment growth with export of services becoming increasingly vital to the future of the Indian economy.

Conclusion:

Service sectors which participated in this boom, growth was fastest in communications, banking, hotels and restaurants, community services, trade and business services. One of the reasons for the sudden growth in the services sector in India in the nineties was the liberalization in the regulatory framework that gave rise to innovation and higher exports from the services sector. The agriculture sector contributed 17.2%; manufacturing industry contributed 29.1% while the service sector had a contribution of 52.7% according to 2008 estimates. The growth rate as seen in 2011 was 19.5% in IT-BPO services, 18.5% in exports and 22.8% in domestic IT related services. The growth in output in the sector in recent times has mostly come from the rapid development of skill intensive services in the information technology and professional service segments. The New Economic Policy includes reduction in government expenditure, opening of the economy to trade and foreign investment, adjustment of the exchange rate from fixed exchange rate system to flexible exchange rate system, deregulation in most markets and the removal of restrictions on entry, on exit, on capacity and on pricing. A shift in the consumption pattern of this nature indicates that the demand-side impetus to services growth will continue to get stronger in the years to some. However, along with the growth of the service sector, the agricultural and industrial growth is also of paramount importance to meet the needs of the burgeoning world population.

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Index

10

A perspective of Status-quo Movements in the Process Eradication of Caste system in Maharashtra

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Introduction:

The status-quo movement has fully followed the ideology of Hinduism. 'The Vedic philosophy is the ideal philosophy for the development of human being' is the fundamental hypothesis for functioning of movement. The fourth Varna system and their Arshramsare the foundation of ideal life of human. Hindu Nationalism is the base of this movement. The thinkers, activists,supporters and followers have argued only this ideology and movement has potential to eradicate the caste system and untouchability. The supporters of movements of Hinduism have argued that the caste system has dead. It is not only the contradiction of views, but it is the way of practices in India. Therefore, the study focused on the perspective of status-quo movement in the process of eradication of caste system.

Research Methodology:

Objectives:

1) Understanding of the function's status-quo movement

2) Analysis the perspective of status-quo movement the process of eradication of caste system.

Research Design and Data collection:

The article is an analytical nature for that purpose secondary data has been collected.

Theoretical perspective:

The present study based on the theoretical views of Joytiba Phule and Dr. B.R.Ambedkar.

Background of Status-quo movement:

In the colonial period V. D. Savrkar, B. G. Tilak, Hedgevar, and so on was hardly working for this ideology. Hindu Mahasabha, Rastriya Swayamsevak Sangh, (RSS) Arya Samaj and some are the movements has devoted for this ideology. The issue of abolition of untouchability has been discussed in long time meeting of Hindu Mahasabha at Pune in 1935. No doubt, the most of members hadn't agreed with these issues, but the senior leader Madan Mohan Malviya warned to meeting, it is necessary to rescue the Hindu religion; we should improve our mistakes which had happened in the history. The impact of this meeting had seen the convention of Hindu Mahasabha. Hindus will not discriminate based on birth and caste in public, social, and political life. This resolution has been passed in the convention of Hindu Mahasabha. (Kasbe: 2006, 220) The impact of this resolution has not seen more strongly in the field but some leaders from Untouchable community have attracted towards Hindu Mahasabha. They were become the part of legislative committees of government with the help of Hindu Mahasabha.

V.D. Savarkar led the temple entry movement at the time of Parvati Temple entry Pune as a part of abolition of untouchability. He was against of birth base caste system and untouchability, but he followed forth Varna system in Hindu religion as an ideal social system. These organizations have tried to upgrade statues middle castes through various ways. The second Sar Sanhg Chalak (Chief) of RSS BalasahebDevras argued the 'the RSS has arranged inter-caste marriage higher than other organizations. The Hindu Mahasabha had done activities under the leadership of Savarkar to abolish the Untouchability and reform in the

An Efficient And One Pot Synthesis Of 2,4,5-Tri Substituted Imidazole Catalyzed By Sodium Hypophosphite

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Abstract:-

Sodium hypophosphite has been used as an efficient catalyst for the preparation of one pot three components synthesis of 2,4,5 tri-subtituted imidazole derivatives using reactants , aldehyde ,benzil and ammonium acetate with water as solvent .reaction are carried out at 80 ^{0}C for 60 to 120 minutes with different derivatives of aldehyde .

K vord: MCR, Imidazole , Benzil , Ammonium Acetate , Aldehyde , Green.

1: Introduction

Multicomponet reaction play imp role in organic as well as medicinal chemistry for compound preparation .the large number of new products could be prepared by the MCR which help to development of new methodology in science. Out of these imadazole is the one of the best mcr product and its derivatives have wide range of biological activity make it importance .imidazole has become an most important element in pharmaceuticals chemistry .its show properties such as antifungal ,antiprotozoal , fungicides and antihypertensive etc. Imdadazole are a class of heterocyclic compound having formula $C_3H_4N_2$. The imadazole can serve as base and weak acid. Imidazole was synthesis in aqueous media or without solvent like ionic liquid. Ceric ammonium nitrate (CAN)[11], Incl3.3H2O[2], Nicl2.6h2o [12] and microwave irradiation has been successfully gives a product as imadazole.

In this paper we report simple mild effective method for preparation of 2, 4, 5, triarylimidazoles by using catalyst. Sodium hypophosphite is use as catalyst .it also known as sodium salt of hypo phosphorous acid. It is water soluble and odorless compound. At room temp it is found to be solid state with white color powder.

2: Experimental

2.1: Experimental Section

All chemical were purchased from Merck, sdfcl were commercially available and were used as received without further purification. Melting points were measured by open capillary method incorrectly.IR data collected on shimadzu.(range 4000-400)). NMR Data recorded on bruker avance II400 NMR DMSO –d6 MHz spectrometer

2.2:General method for synthesis of 2,4 ,5 tri substituted imidazole:-

In round bottom flask benzil (1mmol) ,aldehyde (1mmol), ammonium acetate (4mmol) were added with sodium hypophosphite (10%mmol) at 80 ^{0}c with water 10 ml as solvent for about 40 mint to 120 minut with variable aldehyde . Reaction monitor by TLC. After completion of reaction was cooled to room temperature and solid substances washed with water which give the crude product for further purification it was recrystallized from ethanol to get pure product.

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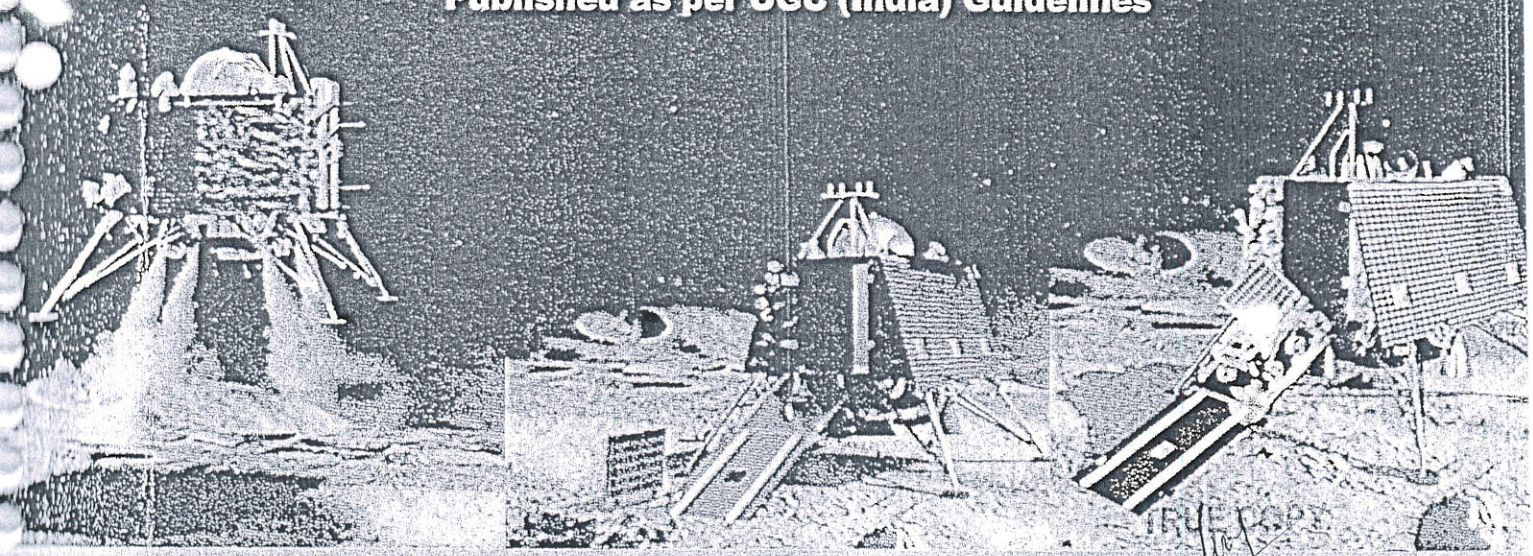

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हिंदी बालकाव्य का बच्चों के व्यक्तित्व विकास में योगदान

डॉ. वर्षाराणी निवृत्तीराव सहदेव
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varsha.sahadev@gmail.com भ्रमणध्वनी 8806919900

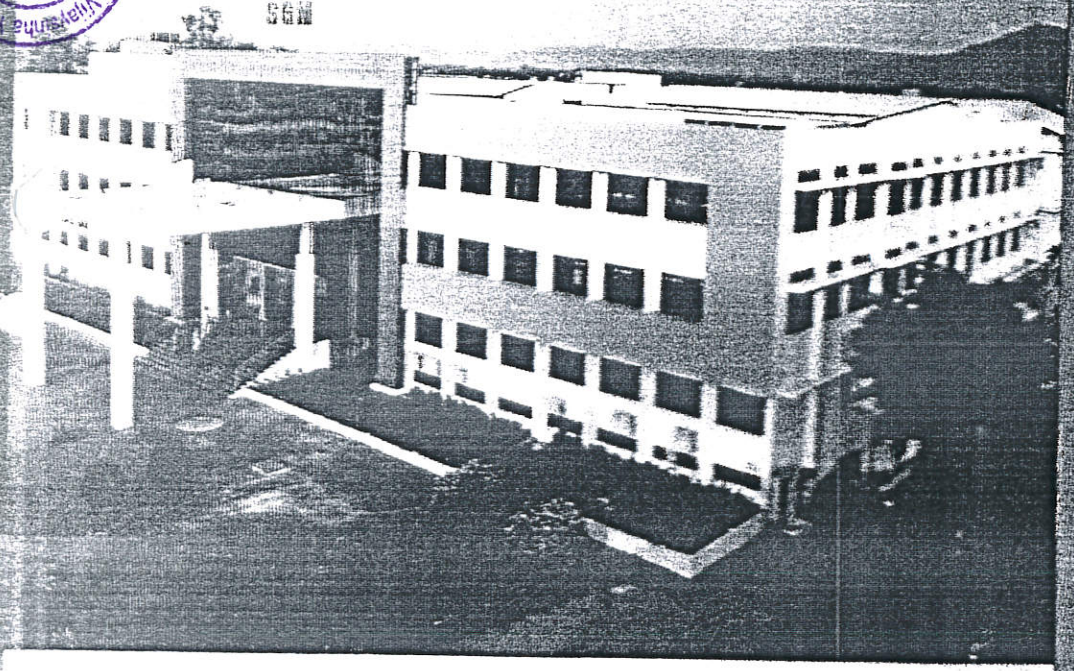
बच्चे देश का भविष्य होते है। आज के बच्चे कल के नागरिक है। वे जितने सक्षम होंगे देश उतना ही सफल रहेगा। अगर नीवं पक्की बनाई गई हो तो ही भवन खडा रह पायेगा। शायद इसी विचार से बालसाहित्य की आवश्यकता महसूस की गई। बचपन कोरे कागज जैसा होता है। उसपर जो लिखेंगें वही रहेगा। आज का बालक परंपरागत प्रतीकों और प्रतिमानों के स्थान पर आधुनिक विज्ञान, कम्युटर, नवीन प्राद्योगिकी और मनोरंजन के नवीन साधनों की ओर आकर्षित हो रहा है। इसलिए आज के बालसाहित्य के सामने कई चुनौतियॉ और संभावनाएँ भी है। उत्कृष्ट बालसाहित्य वही है जो बालको में प्रम, त्याग, मानवता, निस्वार्थता, राष्ट्रीयता आदि का विकास करता है। मुश्कीलों और संकटों से जूझने की प्रेरणा देता है। अतः आवश्यकता इस बात की है कि बालकों के लिए उनकी उम्र को ध्यान में रखते हुए उपयोगी और रोचक बालसाहित्य का निर्माण किया जाए।

बालसाहित्य के अंतर्गत बाल–काव्य ऐसा माध्यम है कि बच्चे तुरंत उससे तादात्म्य स्थापित कर लेते है। आज के बाल–काव्य की सबसे बडी विशेषता यह है कि उनमें बच्चों का मन कुछ अधिक खुला है। आज के बालकाव्य में बाल मनोविज्ञान पर पूरा ध्यान दिया जा रहा है। बालकाव्य अपनी लयात्मकता के साथ विभिन्न विषयों को अभिव्यक्ति दे रहा है। बालकाव्य अपनी उपयोगिता के बलपर सतत गतिशील रहा है। देशभर के अनेक बालकाव्य के रचनाकार मनोयोगपूर्वक बालकाव्य का सृजन कर रहे है।

आज का बाल–काव्य लेखन टी.वी., मोबाईल, इंटरनेट, कम्प्युटर, इलेक्ट्रॉनिक खिलौने आदि पर रचनाएँ लिख रहा है। बीसवीं शताब्दी के अंतिम दशक तक ज्ञान के विस्तार ने बालकोंपर बस्ते के बोझ बढा दिया। वे गृहकार्य की चिन्ता के दबाव में रहने लगे। उनका उल्लास और उमंग के साथ खलना–कूदना बंद हो गया। आर्थोपार्जन की होड में निजी विद्यालयों ने शिक्षा को व्यवसाय बना दिया। अत्याधुनिक सुविधाओं के नामपर अभिभावक उनकी ओर आकर्षित होने लगे। विद्यालय में रटना, घर लौटना, होमवर्क करना, टयुशन जाना आदि सबकुछ यंत्रीकृत हो गया। बालक पग–पग पर स्पर्धा भरे वातावरण में जीने लगा। उनसे उनका बचपन छिन गया। यह एक नई चिन्ता का विषय रचनाकारों के सामने आया। 'बस्ता हल्का कर दो राम'ए 'हमें खेलने जाने दो', 'बचपन हमें बचाने दो' आदि मुद्दे रचनाकारोंद्वारा उठाए जा रहे है।

आज के बच्चों को पढना–लिखना पसंद है पर स्कूल का आतंककारी रूप पसंद नहीं । वे ऐसा स्कुल चाहते है जिसमें भय नहीं, चारों ओर खुशियां बिखरी हों। यश मालवीय बच्चों के मन में बसे एक बढिया और सपनीले स्कूल का चित्र आंकते है –

"ऐसा हो स्कूल हमारा, ऐसा हो स्कूल
जैसे है अपना घर प्यारा, ऐसा हो स्कूल!
नन्हीं जेबों में हम भर लें सूरज, चांद सितारे,
चटपट हमें याद हो जाए गिनती और पहाडे,
बिस्कुट यों कुरकुरा करारा, ऐसा हो स्कूल।"



सद्गुरु गाडगे महाराज कॉलेज, कराड ची भव्य इमारत

बुक - पोस्ट

प्रति,

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संपादक तथा अध्यक्ष
जिल्हा विद्यापीठ मराठी शिक्षक संघ
[illegible] अनुराधे, ७/ब, सूर्यवंशी कॉलनी अ,
तानगुरुजी वसाहत, कोल्हापूर ४१६०१२

शैक्षणिक मराठी

जिल्हा विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर
[illegible] यू.जी.सी. मान्यताप्राप्त त्रैमासिक
[illegible] Referred Research Journal)
ISSN No. 2319-6025

शैक्षणिक संशोधन पत्रिका

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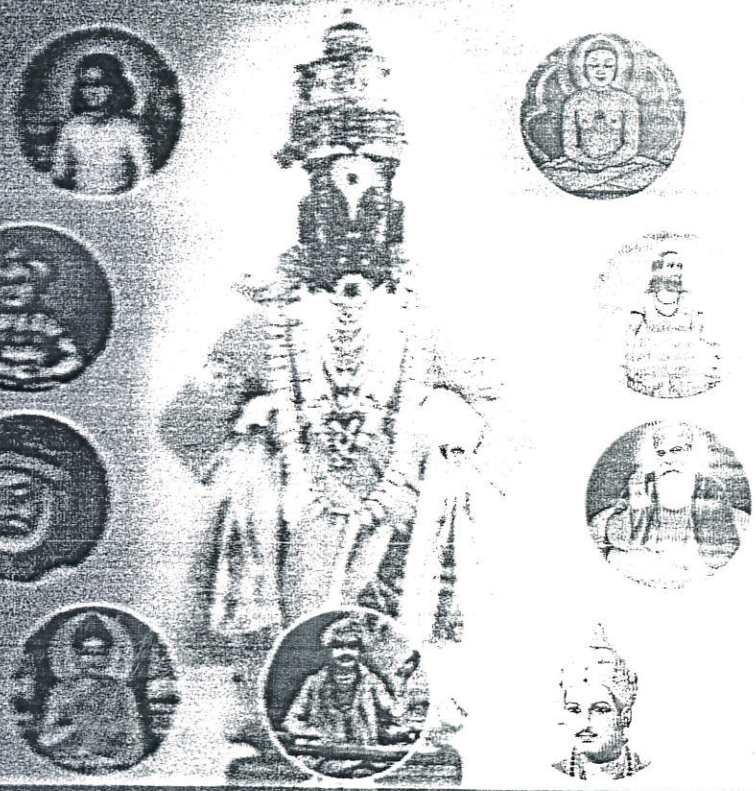
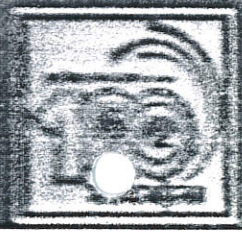
स्वतंत्र मराठी वाङ्मयातील विविध संप्रदाय

विशेषांक १ ले फेब्रुवारी, २०२०





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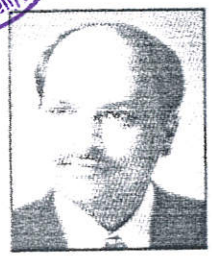
शिवाजी विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर
कार्यकारिणी



अध्यक्ष

डॉ. सुनिता लंगडे
उपाध्यक्ष

मल्लिकार्जुन माळगी
उपाध्यक्ष

प्रा.डॉ. रमेश पोळ
उपाध्यक्ष

सचिव

खजानीस

डॉ. नंदकुमार मोरे
सदस्य

प्राचार्य डॉ. शिवलिंग मेनकुदळे
सदस्य

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डॉ. चंद्रकांत पोतदार
सदस्य

डॉ. सुरेश शिंदे
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शिवाजी विद्यापीठ मराठी शिक्षक संघाचे विद्वत्प्रमाणित त्रैमासिक

शिविम संशोधन पत्रिका

(Peer Reviewed refered Research Journal - ISSN No. 2319-6025)]
(विद्यापीठ अनुदान अयोग नवी दिल्ली, मान्यता अ.क्र. ६४१७५)

सद्गुरु गाडगे महाराज कॉलेज, कराड

राष्ट्रीय उच्चतर शिक्षा अभियान (रुसा)
वर्षे नववे : अंक एकवीस - बावीस
जानेवारी - फेब्रुवारी - मार्च - एप्रिल - मे - जून २०२०

मध्ययुगीन मराठी वाङ्मयातील विविध संप्रदाय

प्रकाशक
अध्यक्ष, शिवाजी विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर
अनुराज, ७/ब, सूर्यवंशी कॉलनी, सानेगुरुजी वसाहत, कोल्हापूर ४१५०११

मुद्रक
श्रीधर मुद्रणालय, कराड
३३८, सोमवार पेठ, कराड ४१५११०
मोबा. ९८९०४९८४९७

मूल्य : ३००/-

हे संशोधन पत्रिका प्रकाशक डॉ. शिवकुमार सोनाळकर यांनी शिवाजी विद्यापीठ मराठी शिक्षक संघ, कोल्हापूर यांसाठी श्रीधर मुद्रणालय, कराड येथे छापून अनुराज, ७/ब, सूर्यवंशी कॉलनी, सानेगुरुजी वसाहत, कोल्हापूर ४१५०११ येथून प्रकाशित केली. या पत्रिकेत प्रकट झालेल्या मतांशी संपादक, प्रकाशक, सल्लागार व मुद्रक सहमत असतीलच असे नाही.

* अंतरंग *

कसून आपल्या जीवनाचे कल्याण साधावे. व्यक्तीकडून समष्टीकडे जाणारा हा विचार व्यक्तीच्या कल्याणाचा आहे तसाच तो समाजाच्या कल्याणासाठी आहे. चक्रधरांनी निरूपण केलेले दर्शनशास्त्र हे परमेश्वराचे आहे ते अत्यंत संक्षेपाने सांगण्याचा प्रयत्न येथे केला आहे. ते प्रथम नीट कळणार नाही तरी देखील ते ऐकावे, वाचावे, घोकावे कालांतराने आपोआप ते कळू लागेल असे चक्रधरांचे ठाम मत आहे.

अहिंसा धर्म

अहिंसाधर्म हा महानुभावांच्या शिकवणुकीतला सर्वात महत्त्वाचा भाग आहे. साधकाने कोणालाही दुखवू नये सर्वात क्षुद्र असणाऱ्या मुंगीची ही हिंसा करू नये असे हा आचार धर्म सांगतो.

सदर्भ

१. जोशी प्र.न. - 'मराठी वाङ्मयाचा विवेचक इतिहास, (प्राचीन खंड), पुणे, १९ ऑगस्ट १९७२'

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४. नासिराबादकर ल.रा. - 'प्राचीन मराठी वाङ्मयाचा इतिहास', फडके प्रकाशन, कोल्हापूर, आठवी आवृत्ती जुलै २००५.

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चक्रधरांची समता : मनुष्यत्वाचा गौरव करणारी

डॉ.प्रशांत गायकवाड

श्री विजयसिंह यादव कला व विज्ञान महाविद्यालय, पेठ वडगाव ४१६११२.

भरवस (भडोच, गुजरात) येथील मल्लदेव राजाचा प्रधान विशालदेव व त्याची पत्नी लक्ष्मणदेवी यांचा पुत्र हरिपाळदेव म्हणजेच चक्रधर होत. वयाच्या सोळाव्या वर्षी हरिपाळ देवांचा मृत्यू झाला. तेव्हा द्वारवती येथील चक्रपाणी यांनी ईश्वर अवतार धारण करून हरिपाळ देवाच्या शरीरात प्रवेश केला. तेच पुढे चक्रधर या नावाने प्रसिद्ध झाले. अशी चक्रधरांविषयी उपलब्ध असलेली माहिती अभ्यासक नोंदवतात. समाजात समता प्रस्थापित करण्यासाठी त्यांनी अनेक प्रयोग केले. त्यांच्याविषयी डॉ.वि.भि.कोलते लिहितात, "हरिपाळदेवांनी त्या काळातील सामाजिक व धार्मिक परिस्थितीचा विचार करून सर्व जाती-धर्माच्या लोकांना भक्तीमार्गाने एकत्र आणण्याच्या उद्देशाने प्रयत्न केले. सर्व जीवांच्या उद्धारासाठी विरक्त होऊन त्यांनी गृहत्याग केला."[१]

वि.भि.कोलते यांच्या वरील विधानातून हरिपाळदेव म्हणजेच चक्रधरांच्या मनामध्ये सर्व जातिधर्मातील लोकांच्या विकासासाठी किती उत्कट करुणा होती, हे दिसून येते. त्यांच्या मनात केवळ करुणाच नव्हती, तर सर्व जीवांच्या उद्धारासाठी विरक्त होऊन त्यांनी गृहत्याग केला होता. त्यासाठी कोणताही त्रास सहन करण्याची, त्याग करण्याची चक्रधरांची मानसिकता होती. विरोधकांनी त्यांना खूप त्रास दिला. पण त्यांनी न डगमगता आपले कार्य पुढे चालूच ठेवले. विरोधकांना त्यांचा प्रभाव रोखून धरता आला नाही. याविषयी पुढे वि.भि.कोलते लिहितात, "त्यांच्या तत्त्वज्ञानाने व व्यक्तिमत्वाने आकृष्ट होऊन अनेक वैदिक पंडित ज्ञानाच्या व वर्णाश्रम धर्माला हादरे देणाऱ्या आचार्यांच्या उपदेशामुळे [illegible] धर्मांतराच्या भीतीने त्यांच्यावर मतलबी आरोप ठेवून त्यांना फार त्रास दिला. अशी परिस्थितीत त्यांनी आपले संपूर्ण तत्त्वज्ञान सर्वसामान्यांना रूचेल, समजेल अशा [illegible] साठी मराठी साधले."[२] चक्रधर आपल्या उक्ती व कृतीद्वारे लोकांना आपलेसे करत असत. गुजराती ही त्यांची मातृभाषा असताना देखील त्यांनी मराठी लोकभाषेचा आग्रह धरला होता, यावरून देखील मोठेपण लक्षात येते. त्यांच्या या बाबतीतील योगदानाविषयी देखील आपण कृतज्ञता व्यक्त केली पाहिजे. संस्कृत भाषेचा व ग्रंथांचाही त्यांचा चांगला व्यासंग होता.

चातुर्वर्ण्याला विरोध

चक्रधरांनी समाजातील विषमतेवर अनेक प्रहार केले होते. चातुर्वर्ण्य त्यांना मान्य नसल्यामुळे त्यांनी चातुर्वर्ण्याला विरोध केला होता. भिक्षा मागण्याच्या बाबतीत त्यांनी म्हाइभटांना जे मार्गदर्शन केलं. ते खूप महत्त्वाचे आहे." 'चातुवर्ण्यं चरेदभैक्ष्यम्:' या शास्त्रासि अनुसरिजे : घर न निवडीत भीक्षा कीजे:"[३]

चक्रधरांचा हा नियम सामाजिकदृष्ट्या खूप महत्त्वाचा आहे. वर्णव्यवस्थेत सर्वात हलक्या

'सर्वोत्तम भूमिपुत्र : गोतम बुद्ध' – बौद्ध संस्कृतीचा अमूल्य ठेवा

प्रशांत गायकवाड

प्रस्तावना

डॉ. बाबासाहेब आंबेडकर यांनी तथागत गौतम बुद्धांवर लेखन करून, १४ ऑक्टोबर, १९५६ रोजी बौद्ध धम्माचा केलेला स्वीकार, तसेच बौद्ध प्रतीकांसंदर्भात घेतलेली भूमिका त्यांचे जागतिक पातळीवरील योगदान ठळकपणे अधोरेखित करणारी आहे. बुद्धांच्या धम्माकडे पूर्वग्रह, पारंपरिक, संकुचित दृष्टीने पाहिले गेले. आधुनिक अभ्यासकांनी त्यातील सामाजिक क्रांतिकारकता दुर्लक्षित केल्याबद्दल बाबासाहेबांनी खंतही व्यक्त केली आहे. बुद्धांच्या धम्माचे आकलन नीट झाले नाही, हे नोंदवून कार्ल मार्क्स आणि त्यांच्या साम्यवादाच्या बाबतीत केवळ दारिद्र्याचे कारण पुढे करून मानवी स्वातंत्र्याचा बळी देणे सुज्ञपणाचे नव्हे, हे स्पष्ट केले आहे. 'THE BUDDHA AND HIS DHAMMA' या ग्रंथात त्यांनी हे स्पष्ट केले आहे. ते म्हणतात, ''दुर्दैव हे आहे, की बुद्धाच्या शिकवणीचा अन्वयार्थ लावणे व आकलन होणे या गोष्टी नीट झालेल्या नाहीत. त्यांची तत्त्वे आणि सामाजिक पुनर्रचना याबाबत पूर्णत: गैरसमज झालेला आहे.''[१] ही उणीव भरून काढण्याचे काम स्वत: बाबासाहेबांबरोबर भदन्त आनंद कौसल्यायन, धर्मानंद कोसंबी, डॉ. आ. ह. साळुंखे इत्यादींनी आपापल्या परीने केले आहे.

सुमारे ५० वर्षांहून अधिक काळ आपल्या लेखन व संशोधनाने, वैचारिक साहित्यात मोलाची भर घालणारे ज्येष्ठ विचारवंत डॉ. आ. ह. साळुंखे यांचा 'सर्वोत्तम भूमिपुत्र : गोतम बुद्ध' हा एक महत्त्वपूर्ण ग्रंथ आहे. आजपर्यंत या ग्रंथाच्या मराठी भाषेतील १० हून अधिक आवृत्त्या निघाल्या आहेत, तसेच हिंदी वगैरे भाषांमध्ये अनुवाद होण्याच्या मार्गावर आहेत. ही गोष्ट या ग्रंथाची उपयुक्तता अधोरेखित करणारी आहे. डॉ. बाबासाहेब आंबेडकर यांच्यानंतर बुद्धचरित्र व तत्त्वज्ञानाची वर्तमानातील उपयुक्तता ध्यानात घेऊन आंबेडकरी दृष्टिकोणातून डॉ. आ. ह. साळुंखे यांनी त्याचा अन्वयार्थ लावला आहे. पाली वाङ्मयाची चिकित्सा करून अनेक दृष्टींनी जागतिक पातळीवर उपयुक्त ठरणारा हा ग्रंथ आहे. तो अभ्यासकांसोबतच अखिल बौद्ध जगताला अनेक पटींनी उपयुक्त व दिशादर्शक आहे.

या ग्रंथाची सर्वांगीण चिकित्सा येथे अभिप्रेत नसून निवडक उदाहरणांच्या माध्यमातून डॉ. साळुंखे यांचे योगदान सूत्ररूपाने अधोरेखित करणे, या मर्यादित हेतूने येथे मांडणी केलेली आहे. ती थोडक्यात पुढीलप्रमाणे आहे.

गृहत्याग

सिद्धार्थांनी गृहत्याग करण्याचा व परिव्रज्या घेण्याचा जो निर्णय घेतला होता, तो अत्यंत विचारपूर्वक, त्यांच्या चिंतनाला साजेसा असाच होता. सिद्धार्थांच्या प्रवासातील त्यांचे शेतावरील पहिले ध्यान आणि गृहत्याग या विषयीचा निर्णय त्यांच्या चिंतनाला साजेसा व विवेकी असल्याचे डॉ.साळुंखे यांचे विवेचन अत्यंत लक्षणीय आहे. या दोन्ही घटना सिद्धार्थांच्या आयुष्याला कलाटणी देणाऱ्या आहेत, याकडे अत्यंत सूक्ष्मपणे डॉ. साळुंखे यांनी आपले लक्ष वेधले आहे.

गृहत्यागाविषयी परंपरागत दृष्टिकोण

सिद्धार्थांनी एके दिवशी एक रोगी, एक वृद्ध आणि एक प्रेत पाहिले. त्यांना प्रथमच दु:खाचे दर्शन झाले. तसेच, एक श्रमण दिसल्यावर त्यांनी गृहत्याग करण्याचा निर्णय घेतला, असे प्रचलित मत आहे. धर्मानंद कोसंबी, डॉ. बाबासाहेब आंबेडकर, डॉ. आ. ह. साळुंखे इत्यादींनी चार दृश्यांची घटना हे सिद्धार्थांच्या गृहत्यागामागचे कारण मानण्यास नकार दिला आहे.

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Endocrine Response to Mercury Contamination by a Teleost Cirrhinus mrigala

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Abstract

Water pollution by industrial effluents containing organics and heavy metals pose a serious hazard to the aquatic biota and public health. Highly polluted water apparently causes the death of fish. Consistent low levels of pollution may decrease the fecundity of fish and eventually the extinction of this important natural resource. Effects of heavy metals on fish are multidirectional and followed by numerous alterations in the physiological and chemical process of the body system. Of all the contaminants mercury is by far the most toxic as well as the metal capable of biomagnifications in almost all food chains. Mercury is known to bioaccumulate in human through food chain causing serious hazards. Mercury released in the environment is transformed in methylmercury causing bioaccumulation and interfere the pituitary-gonadal axis resulting in alterations in reproductive hormones of fish. Pituitary gonadotropins both follicle stimulating hormone (FSH) and luteinizing hormone (LH) control the annual cycle of gonadal growth, ovulation in females, sperm release in males and production of sex steroids in both sexes thereby impairing the reproductive behavior. Radioimmunoassay is an immunological assay technique to measure the concentration of antigen (hormone). It is a sensitive, specific method which involves competitive binding of radiolabeled antigen and unlabeled antigen with a high-affinity antibody. The present study was undertaken to explore and confirm the endocrine disruptive effects of mercury on fish *Cirrhinus mrigala.* The result of quantitative alterations in gonadotropins may be either due to the blocking of gonadotropin-releasing hormone (GnRH) or quantitative and qualitative deterioration of gonadotropes (cells secreting gonadotropins). The

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Vol-68-Issue-34

February-2020

dose-dependent alterations in gonadotropins suggest that the long-termsublethal exposure to mercury is detrimental to fish.

Keywords: Mercury, Radioimmunoassay, gonadotropins, sublethal, *Cirrhinus mrigala.*

Introduction

Heavy metal toxicity is potentially dangerous and causes serious health problems through bioaccumulation viathe food chain [1-2].Biological systems need no heavy metals like mercury, cadmium, arsenic,and lead as they are not essential for any process. Among heavy metals dispersed in the environment, Lead, Mercury, Arsenic,and Cadmium (Cd) are ubiquitous and have severely harmful effects [3-6]. Mercury is a toxic, nonessential heavy metal studied on a large scale as its concentration is environment rises due to some industrial waste. Mercury is a ubiquitous component of industrial and agricultural effluent and an element naturally present in relatively high levels in a number of different regions. (UNEP) Of all the contaminants mercury is by far the most toxic as well as the metal capable of biomagnifications in almost all food chains. Mercury is found in aquatic environments as inorganic mercury (Hg) and as organic methylmercury (MeHg).Methyl mercury is more toxic as it gets biomagnified through aquatic food chains and eventually increases risk to wildlife and humans [7].The human waste in every form is received by aquatic environment which causes the fish populations more vulnerable[8]. Many industrial and agricultural chemicals (including heavy metals and alkyl phenols) present in the environment have adverse effects on the reproductive function of fish [9]. Multidimensional and multidirectional effects of heavy metals result in numerous alterations ofphysiological and chemical process of the body system [10].

The endocrine system, nervous system,and immune system are the three important integrating and regulatory system in the animal body. The pituitary is one of the major endocrine glands. Hormones are the secretory products of endocrine glands and travel through the blood to affect the target organs. Hormones are responsible for maintenance of homeostasis, reproduction, development,andbehavior of the organism. Endocrine disrupters (EDs) have been defined as exogenous agents that interfere with the production, release, transport, metabolism, binding action or elimination of natural hormones responsible for the maintenance and the regulation of

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

developmental processes of the body [11]. EDs have serious effects on the ability of that organism to reproduce and its offspring to survive and eventually reproduce. Endocrine disruptors show a variety of biological effects on human as well as on animal life. Mercury affects the endocrine systems through, accumulation in endocrine systems, cytotoxicity of endocrine tissues, changes in hormone concentrations, interactions with sex hormones and up or down-regulation of enzymes within steroidogenesis pathway [12]. In fish, pituitary gonadotropins control the annual cycle of gonadal growth, ovulation in females, sperm release in males and production of sex steroids in both sexes [13-14]. Mercury inhibits the gonadotropic activity, which thereby leads to alterations in gonadal development [15]. It is acceptable that mercury acts primarily on the ability of the pituitary to secrete gonadotropin hormones altering the release of sex steroids, thereby impairing the reproductive behavior [16]. Pituitary gonadotropins both FSH (Follicle stimulating hormone) and LH (Leutinizing Hormone) play a crucial role in regulating gametogenesis and the production of the gonadal hormone. FSH and LH, are two distinct gonadotropins in fish. Fish FSH and LH are heterodimeric glycoproteins like tetrapod gonadotropins consisting of a common alpha (α) and a hormone-specific beta (β) subunits that are non covalently linked [17].

Gonadotropins are important factors for the prolonged growth phase of teleost oocytes [18]. Exposure to mercury results in decreased secretion of gonadotropins thereby impairing the proliferation and growth of oocytes and resorption of yolk in Channapunctatus[19]. Hg induces decreased secretion of gonadotropin which further results in inhibition of vitellogenesis [20]. It is necessary to identify the gaps in our knowledge of mercury's health risks to animal and human life. Various animal models exposed to mercury caused impairments in all endocrine glands. The data available indicate that mercury may act as a major endocrine disrupter [21-22]. Animal studies with low-levellong-term exposure are of great help and well designed toxicological studies are urgently needed to confirm the endocrine disruptive effects of mercury [23].The goal of the present paper is demonstrating the effects of sublethal mercury exposure on the pituitary-gonadal axis of teleost fish Cirrhinus mrigala through quantitative assay of FSH and LH.

Experimental details

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

The young adults of C. mrigala weighing 75 ± 5g were collected from the local remote reservoir. The fishes were brought alive to the laboratory. The fishes were transferred to well aerate rectangular glass aquaria containing seasoned tap water. Fishes were acclimatized for 15 days before experimentation and kept under the controlled condition of light and temperature. Bioassay tests (acute tests) were conducted using mercuric chloride as a toxicant for 96h. The toxicity tests were repeated for five times and the LC0and LC50values for 96h were determined. The safe concentration of mercuric chloride for the toxic study was determined by obtaining the LC50 value of mercuric chloride. The observed LC0 and LC50 values for mercuric chloride were 400 ppb and 412 ppb respectively. The calculated LC50 value is 410 ppb (Table-1). For chronic toxicity (30 days) $1/20^{th}$ and $1/10^{th}$ concentrations of LC50 values of mercuric chloride were selected. The values of chronic study for mercuric chloride were 20.6 and 41.2 ppb respectively. A control group in similar conditions was kept simultaneously with only seasoned water for acute and chronic toxicity studies. After completion of acute and chronic exposure of test animals to the toxicant 50% fish were anesthetized in 94% clove oil for 3 minutes. Blood samples were collected from a cardinal blood vessel of fish using the method of Kori-Siakpere and Egor (1997). Blood samples were allowed to coagulate for 15 to 20 minutes at room temperature and centrifuged at 3000 rpm for 10 minutes to separate serum. Serum samples were stored in the refrigerator and analyzed for FSH and LH by radioimmunoassay at Dr. Shindagi's pathology and radioimmunoassay laboratory (Recognized by B. A. R. C. Mumbai). The protocol was also followed for fishes of the control group, acute toxicity and chronic toxicity groups of the toxicant.The measurement of FSH and LH concentrations is an important part of the investigation of disorders of the hypothalamic-pituitary-gonadal axis. Quantitative in vitro determination of hFSH in human serum is determined by125I-hFSH IRMA system. The same system was used for quantitative determination of FSH in fish serum.

Principle of method

The technology involves use of two high-affinity monoclonal antibodies in an immunoradiometric assay (IRMA) system. An epitope of the FSH molecule gets bind by 1251 labelled signal antibody, relatively different from that recognized by the biotincapture-antibody.

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

The two antibodies react simultaneously with the antigen present in standards or samples, which leads to the formation of a capture antibody-antigensignal antibody complex, also referred to as a "sandwich". During a2-hour incubation period with shaking immune-complex is immobilized to the reactive surface of streptavidin-coated test tubes. The reaction mixture was discardedand the radioactivity was measured in a gamma counter. The concentration of antigen is directly proportional to the radioactivity measured in test tubes. By constructing a calibration curve plotting binding values against a series of calibrators containing a known amount of hFSH, the unknown concentration of FSH in fish samples can be determined. Specimen collection and storage Blood samples were collected from the caudal blood vessel of fish using the method of Kori-Siakpere and Egor (1997). EDTA coated tubes were used because unlike heparin it did not cause the blood cells to shrink. Blood samples were left to coagulate for 15 to 20 minutes at RT and then centrifuged at 3000rpm for 10 min. to separate serum and the serum samples were stored in polyethylene Eppendorf test tubes at 2-80C if the assay is carried out within 24 hours, otherwise, aliquots should be prepared and stored deep frozen (-200C). Frozen samples should be thawed and thoroughly mixed before assaying.

Preparation of reagents, storage

Add the wash buffer concentrate (20 ml) to 700 ml of distilled water to obtain a 720 ml wash solution. Add 1000µl distilled water to the lyophilized control serum. Mix gently with shaking (avoid foaming). Ensure that complete dissolution is achieved, and allow the solution to equilibrate at room temperature for at least 20 minutes. Store the rest of reagents between 2-80C after opening. At this temperature, each reagent is stable until the expiry date of the kit.

Assay procedure

1. Equilibrate reagents and samples to room temperature before use.
2. Label coated tubes in duplicate each standard (SI-S6), control serum and samples.
3. Avoid foaming by gentle mixing of all reagents and samples.
4. Pipette 100µl of standards, control,and samples in the properly labeled tubes in a rack. Do not touch or scratch the inner bottom of the tubes with a pipette tip.
5. Pipette 200 µl of tracer into each tube.

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

6. Fix the test tube rack firmly onto the shaker plate after sealing with a plastic foil. Turn on the shaker and adjust an adequate speed such that liquid is constantly rotating or shaking in each tube.
7. Incubate shaking tubes at room temperature for two hours.
8. Add 2.0 ml of diluted wash buffer to each tube. Decant the supernatant from all tubes by the inversion of the rack. In the upside-down position place the rack on an absorbent paper for 2minutes.
9. Return the tube-rack to an upright position, and repeat step-8 two more times.
10. Count each tube for at least 1 minute in a gamma counter.
11. Calculate the FSH concentrations of the samples by using special software.

Quantitative determination of LH

The protocol for quantitative determination of fish LH is same that of FSH mentioned in literature [24].

Resultsand Discussion

The pituitary gland plays a central role in initiating reproductive maturation (puberty), maintaining production of sperm and eggs and inducing final maturation and gamete release (spawning)through the actions of gonadotropins (GtHs). Determination of pituitary and serum levels of these hormones makes an important tool in investigating vertebrate reproductive physiology. The pattern of gonadotropin secretion in fish reveals that these hormones are differentially secreted during the reproductive cycle. In females – FSH stimulates the growth of ovarian follicles and secretion of estradiol while LH stimulates ovulation in the female. In males – FSH stimulates spermatogenesis, while LH stimulates testosterone- a gonadal sex steroid hormone.

Effect of mercuric chloride on serum gonadotropin level of C. mrigala

The mercurials primarily act on hormone synthesis and release mechanisms of the pituitary gland. In the present study, we evaluated a possible role for mercury contamination and administration in inactivation of gonadotropins and investigated the endocrine mechanism underlying the fact. The serum gonadotropin level in control and changes in serum gonadotropin

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

level induced by mercuric chloride in C.mrigala at acute and chronic concentrations are shown in Table 1 and Fig.1.

B-1. LC0: The serum gonadotropin level in C. mrigala after exposure to LC0 concentration (400ppb) of mercuric chloride for 96h showed a decrease in both FSH and LH as compared to control. The decrease in FSH was 82% and that of LH was 5% after acute exposure to mercuric chloride at LC0 concentration.

B-2. LC50: The serum gonadotropin level in C. mrigala after exposure to LC50 concentration (412ppb) of mercuric chloride for 96h showed a decrease in both the gonadotropins, FSH and LH. The FSH was lowered by 83% and LH was lowered by 11% as compared to control after acute exposure of fish to LC50concentration of mercuric chloride.

B-3.Chronic: Chronic exposure of C. mrigala to $1/20^{th}$ (20.6ppb) of LC50concentration of mercuric chloride for 30 days showed the considerable effect on serum concentration of gonadotropins, FSH and LH. A significant decrease in both the gonadotropins has been observed. The results are shown in Fig.1. In the present study, serum concentration of FSH was lowered by 44% and that of LH by 27% after an exposure of C.mrigala to $1/20^{th}$of the LC50 concentration of mercuric chloride. Chronic exposure of C. mrigalato $1/10^{th}$ (41.2ppb) of the LC50concentration of mercuric chloride for 30 days showed the effect on serum concentration of gonadotropins, FSH and LH. A significant decrease in both the gonadotropins was observed. Study of a comparative decrease in percent value of gonadotropins showed49% decrease in FSH and 54% decrease in LH after exposure of C. mrigala to $1/10^{th}$of the LC50concentration of mercuric chloride.From the present investigation, it was observed that mercury causes impairment in serum gonadotropin level in C.mrigala. The decrease in serum level of FSH and LH was more in chronic exposure of C.mrigala to $1/10^{th}$ of the LC50concentration of the toxicant than in chronic exposure to $1/20^{th}$of LC50concentration. In the acute exposure of 96h, the decrease in both the gonadotropins serum concentration was more prominent in LC50concentration than LC0concentration of mercuric chloride.

Discussion

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

Mercury was found to be deposited in the pituitaries of laboratory animals after exposure to mercury by various routes [25] and our previous investigations in C. mrigala demonstrate that mercury accumulates in various organs thereby impairing the histology of vital organs [26]. Could mercury as an environmental toxicant influence gonadotropin levels and therefore reproductive behavior? We assessed a possible route of endocrine disruption by mercury and probable mechanism underlying it.Acute stressors have been found to increase gonadotropin circulating levels in brown trout, Salmo trutta[27-30].In a review on the endocrine disruptive effects of mercury suggested that mercury has the potential to cause a series of impairments of almost all endocrine glands of laboratory animals, however, the mechanism of mercury toxicities on the endocrine system is not clearly illuminated. Dearth et al., [31] demonstrated changes in LH secretion in female Fischer rats (F344) administered with 12mg/ml concentration of lead acetate. Findings of the study revealed that puberty was retarded in the off springs of treated animals and a noticeable reduction in estradiol and LH. [32] Crump and Trudeau, showed a reduced LH and sex steroid level in post spawning female goldfish, Carassius auratus exposed to 0.88µg/g of methylmercury.Tartu et al., [33] reported altered reproductive behavior by cadmium through modifications in the gonadotropin and sex steroid release by acting on the pituitary gland.Simultaneous exposures to cadmium and lead have been evaluated by Pillai et al.[34], in female rats. Adult male rats treated with cadmium showed a decrease in plasma FSH level but no modification in plasma LH [35]. The exposure caused alterations in receptor binding and secretary mechanism of pituitary hormones. Ciarrocca et al., [36] reported that cadmium exposure in the urban air reduces FSH secretion in male workers. Mercury primarily acts on the ability of the pituitary to secrete gonadotropin hormonesand impairs reproductive behavior.In the present study, in general, the FSH and LH decreased significantly after the acute and chronic exposure of C.mrigala to mercuric chloride as compared to control. Our parallel histopathological studies on organs including pituitary and gonads indicate that the mercury influence on gonadotropins may be due to structural and functional alterations in gonadotropes of the pituitary gland.

Heavy metals exposure produces a wide range of adverse effects and can impair reproduction and disrupt the expression of estradiol and testosterone in vertebrates [37-38]. Lead

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

absorption leads to a high mortality rate and cause many biochemical and histological alterations in fish [39]. Heavy metals such as lead, cadmium and mercury reported having an endocrine disruptive potential. Pundir and Saxena [40] studied the pituitary gland of fish Puntius ticto after chronic exposure to cadmium. Further, loss of structural organization and change in shape and size of the pituitary gland was reported. Prominent vacuolization was displayed by PPD cells. Remarkable changes in the pituitary gland and inflammation of a pituitary gland of Puntius ticto exposed to weedone were observed by Verma et al. [41]. The gradual accumulation of secretory granules in gonadotropes was reported in cyprinid fish Puntius Sarana exposed to high concentration of cadmium chloride [42]. Ronis et. al., [43] showed alterations in pituitary activity due to metals. Effect of cadmium exposure on the pituitary gland of Italian wall lizard Podarcissiculawas studied by Favorito et al, [44]. Cadmium showed a cytotoxic effect on the gland with an evident alteration in adenohypophyseal cells. Murrel and walking catfish exposed to 10-50 µg/l of methylmercury, inorganic mercury or a mercurial fungicide were studied by Ram and Joy, et al, [45] and smaller, inactive and fewer gonadotropes were reported, in both species. Atrophic changes of the pituitary corticotropes in cortisol impaired fish from sites contaminated with heavy metals were shown by Hontela et al.,[46].The reduced cell size, reduced cell area and presence of large intercellular spaces indicate the atrophy and structural impairment. Hontela, [47] observed structural and functional impairment of pituitary in fish exposed to craft mill effluent with smaller corticotropes and larger intercellular spaces in the exposed fish. Favorito[44] suggested a direct correlation between accumulation of cadmium in the brain and alteration of the normal occurrence and distribution of the corticotropes, lactotropes and gonadotropes cells and their secretory activity. Sakly and Hachfi (2010) [35] reported that cadmium could be the toxicant principally acting on the hypothalamic-pituitary axis. Simultaneous exposure to cadmium and lead lower the membrane fluidity in the pituitary gland. It affects the membrane function and causes alterations in receptor binding and secretary mechanisms of pituitary hormones [34] (Pillai et al., 2002).The pituitary gonadotropins synthesized by gonadotropes, enter into peripheral circulation and bring about the effect on steroidogenesis and gametogenesis by binding the receptors in the gonads.The present study provides evidence for the close relationship between serum gonadotropin levels and quantitative

ISSN: 0474-9030

Vol-68-Issue-34

February-2020

and qualitative profile of gonadotropes.The quantitative alterations in gonadotropins may be either due to the blocking of gonadotropin-releasing hormone (GnRH) or quantitative and qualitative deterioration of gonadotropes.

Table - 1

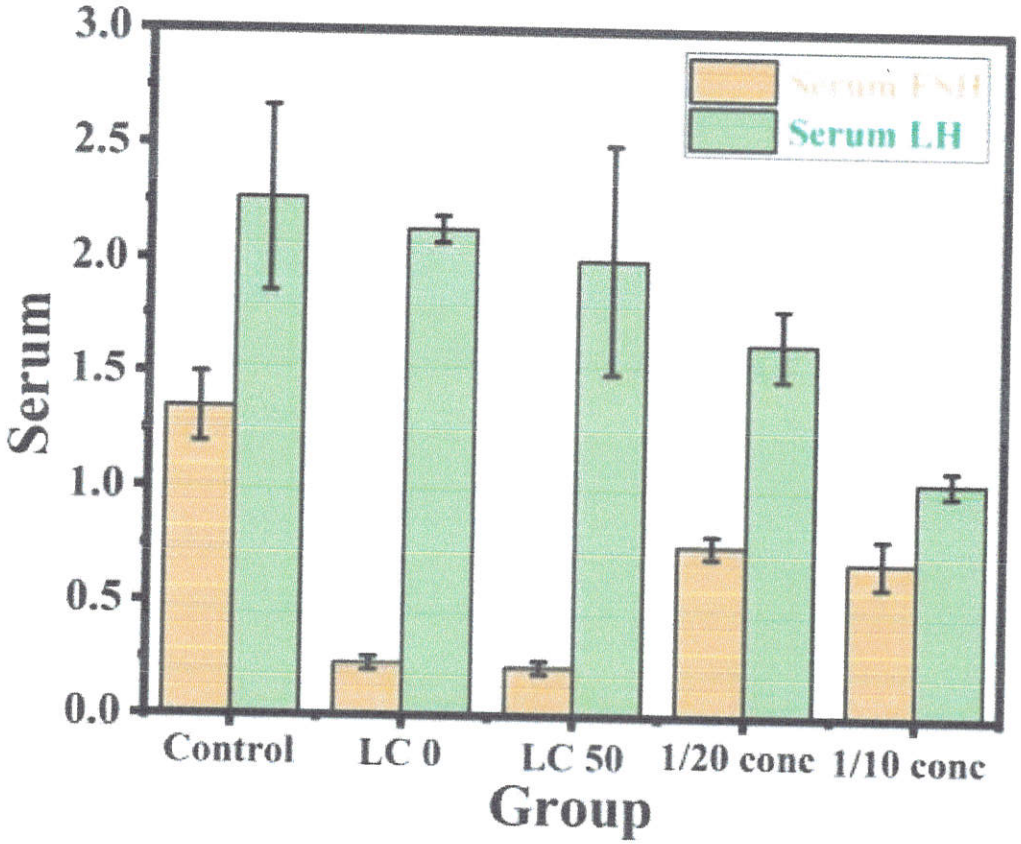
Effect of mercuric chloride on serum FSH and LH of *Cirrhinus mrigala*

Group	Serum FSH (mIU/ml)	Serum LH (mIU/ml)
Control	1.350 ± 0.150	2.267 ± 0.404
LC0	0.233 ± 0.029	2.133 ± 0.058
LC 50	0.217 ± 0.029	2.000 ± 0.500
1/20 conc (20.6ppb)	0.750 ± 0.050	1.633 ± 0.153
1/10 conc (41.2ppb)	0.683 ± 0.104	1.037 ± 0.055

ISSN: 0474-9030

Vol-68-Issue-34

February-2020



Conclusion:

Mercury inhibited the gonadal development, reduced the serum gonadotropin levels in C. mrigala. The present study has thus demonstrated the relationship between the reproductive success of fish and mercury concentration in water. This suggests that reproduction of wild fish may be adversely affected by mercury and that suppress hormone levels can be used to indicate mercury as an endocrine disrupter for teleost.The inclusion of field studies on wildlife and human will enhance research in mercury toxicity.

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ISSN: 0474-9030

Vol-68-Issue-34

February-2020

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Vol-68-Issue-34

February-2020

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ISSN: 0474-9030

Vol-68-Issue-34

February-2020

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