

एक विनम्र सत्यशोधक आणि बहुआयामी साहित्यिक

डॉ. श्रीराम गुंडेकर : व्यक्ती आणि वाङ्मय

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एक विद्वान् सत्यशोधक आणि बहुआयामी साहित्यिक
डॉ. श्रीराम गुंडेकर : व्यक्ती आणि वाङ्मय
संपादक - डॉ. नरसिंग कदम
सहसंपादक - प्रा. संजीवकुमार माने

ISBN - 978-93-92464-69-0

प्रभाकर पब्लिकेशन

३०४, विंग-सी, सिद्धीविनायक अपार्टमेंट,

सुतमील रोड, लातूर

मो. ८६००८८११२७, ८१४९१५३०१८

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प्रथम आवृत्ती

१२ ऑक्टोबर २०२३

मुद्रक

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*सूचना : या पुस्तकातील कोणत्याही भागाचे पुनर्निर्माण अथवा चापर इलेक्ट्रॉनिक अथवा यांत्रिकी साधनांनी - फोटोकॉपींग, रेकॉर्डिंग किंवा कोणत्याही प्रकारे माहिती साठवणुकीच्या तंत्रज्ञानातून लेखकाची लेखी परवानगोशिवाय करता येणार नाही. सर्व हक्क राखून ठेवले आहेत. या प्रकाशातील लेखकांच्या भलाशी संपादक, सहसंपादक प्रकाशक, मुद्रक, वितरक सहमत असतीलच असे नाही.

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९४२१४७७८५४

प्रस्तावना

सत्यशोधकाची परंपरा या देशात फार प्राचीन काळापासून आहे. नाथ, बौद्ध, जैन यांच्या पासून आहे. सत्यशोधक समाजाची स्थापना महात्मा ज्योतिबा फुले यांनी केली इ.स. १८८९ मध्ये मध्ययुगातील वारकरी, महानुभाव, लिंगायत यांच्यापर्यंत ती कधी सातत्याने तर कधी खंडित स्वरूपात ती आढळते. मराठी वारकऱ्यांनी वर्णभेद आणि लिंगभेदाविरुद्ध बंड केले तसेच संस्कृत भाषेविरुद्ध बंड करून उच्च वर्णीयांना त्यांच्या समग्र मर्यादाची जाणीव करून दिली. वारकरी आणि त्यांच्या नंतर मराठीशाहिरांनी अभिव्यक्ती स्वातंत्र्याबाबत लोकशाहीतत्व अवलंबिले होते. त्यांच्या काळातही संकल्पनाही अस्तित्वात नव्हती हे खरे आहे २४ सप्टेंबर १८७३ ला सार्वजनिक सत्यधर्म ग्रंथ लिहिला. महात्मा फुले यांना सत्य शोधण्याची तळमळ होती त्यांच्या अनेक उपक्रमामध्ये ती प्रत्यक्षपणे व्यक्त झाली आहे. तसेच त्यांच्या समग्र वाङ्मयाची उर्मी व प्रेरणा सत्य शोधने हीच आहे. सत्यशोधक साहित्य प्रवाहामध्ये अनेक वाङ्मय प्रकार उदयास आले. आपणास महात्मा ज्योतिबा फुले यांच्या लेखना पासून आधुनिक काळात सत्यशोधकी साहित्य परंपरेचा प्रारंभ झाला. महात्मा फुले यांनी ललित आणि ललितेतर वैचारिक अशा दोन जाती प्रकाराच्या साहित्याची निर्मिती केली एवढेच नव्हे तर त्यांनी लेखनाचे गद्य आणि पद्य अशी दोन्ही प्रकार हाताळले. ग्रंथ लेखनामध्ये त्यांनी नाटक

हा साहित्यप्रकार हाताळला इ.स.न १८५५ मध्ये मराठी नाटक संस्कृती साहित्य इंग्रजी साहित्यावर पोसत होते. व्याख्यान किर्तन प्रवचन इत्यादी प्रकाराचा मराठी नाटकावर प्रभाव होता. तेव्हा महात्मा फुले यांनी तृतीयरत्न हे स्वतंत्र सामाजिक नाटक लिहिले. ब्राह्मणी उत्तराच्या शिक्षणाला का आणि किती प्राधान्य द्यावे या विषयीचे मूल्यदृष्टीभाग या नाटकातून व्यक्त होते. समाजातील एखादा स्थळ किंवा जात श्रेष्ठ किंवा अप्रतिम प्रतिष्ठेची का ठरते तर त्या जाती स्तराची समाज उपयोगिता किती आहे यावरून ठरते. महात्मा फुले उयुक्ता आणि आधुनिक मूल्याच्या कसोटीवर मूल्यमापन करतात. तेव्हा कष्ट करून अन्नधान्याचे उत्पादन करणारे कुणबी म्हणजे शेतकरी आणि अनुष्ठान करणारे किंवा त्या मोबदल्याची दक्षिणा निरीक्षण शेतकऱ्याकडून उकळणारे भट ब्राह्मण अनैतिक ठरतात. मूल्यदृष्टी बदलली की पवित्र अपवित्र नैतिक अनैतिक श्रेष्ठ कनिष्ठ प्रतिष्ठित या संकल्पनांमध्ये अशी उलटा पालट होते.

स्वातंत्र्य, समता, बंधुता या त्रिसूत्रीसाठी जनसामान्य माणसाचा कैवारी बनलेला समुदाय म्हणजे सत्यशोधक समाज होय. संसाराकडे दुर्लक्ष करून वर्ग संघर्ष आणि वर्ण संघर्ष ऐरणीवर घेऊन मानव मुक्तीच्या ध्येयाकडे हा सत्यशोधकीय समाज वाटचाल करत राहिला. सत्यशोधक समाज या शब्दाचा अर्थ सत = खरे शोधक = तपास करणारा मंडळ म्हणजे समाज खरे तपास करणारा समाज असा याचा अर्थ होतो. मानवाच्या उत्क्रांतीमध्ये अधिक काळापासून सामाजिक राजकीय ऐतिहासिक सांस्कृतिक अशा वेगवेगळ्या स्तरावर संघर्ष होत आलेला आहे. आणि या संघर्षाचा शेवट हा सत्याने झालेला आहे. म्हणजेच असत्यावर अन्यायावर सत्याने विजय मिळवलेला आहे. भारताचा विचार केला तर भारतात प्राचीन कालखंडात प्रस्थापित समाज व्यवस्थेला विरोध करण्यासाठी विविध परंपरा निर्माण झाल्या त्यामध्ये जैन धर्म बौद्ध धर्म शैव तत्त्वज्ञान इत्यादी संप्रदाय यामध्ये समावेश होतो. मध्ययुगात वारकरी संप्रदाय महानुभव संप्रदाय लिंगायत दत्त इत्यादी संप्रदायिक परंपरांनी वर्ण व जाती व्यवस्थेला विरोध केला. स्त्री पुरुष समानतेला महत्त्व दिले. हीच परंपरा आधुनिक कालखंडात ब्राह्मो समाज प्रार्थना समाज आर्य समाज आणि सत्यशोधक समाज यांनी समोर ठेवली. यांनी प्रस्थापित समाज

व्यवस्थेला विरोध केला यातूनच सत्यशोधकीय साहित्याची निर्मिती झाली. सत्यशोधकीय साहित्याचा मूळ गाभा हा गुलामगिरीला नकार हा आहे. वर्णव्यवस्था जातीव्यवस्था नाकारणारे स्त्रीदास्य नाकारणारे कर्मकांडाला विरोध करणारे मानव मूल्यांचा विवेक निष्ठेचा पुरस्कार करणारे साहित्य म्हणजे सत्यशोधकीय साहित्य होय. सत्यशोधकीय साहित्यामध्ये सत्यशोधकी संवेदना जाणिवा आणि मूल्य याचा विस्तृतपणे उल्लेख आलेला आहे. एखाद्या व्यवस्थेकडे एक माणूस म्हणून पाहणे म्हणजे भुकेलेल्याला अन्न व तहानलेला पाणी देणे एक मन संवेदनशील असणे हा सत्यशोधकीय समाजाचा मूळ पाया आहे. संवेदना जाणीव आणि मूल्य या त्रिसूत्रानुसार सत्यशोधकीय साहित्याने प्रस्थापित समाज व्यवस्थेतील मानवाने निर्माण केलेले कृत्रिम भेद वर्ण लिंग जाती व्यवसाय पवित्र आपवित्र या सर्व भेदांना दूर करणारे साहित्य म्हणजे सत्यशोधकीय साहित्य होय. महात्मा ज्योतिबा फुले यांनी ज्या कालखंडात कार्य केले तो कालखंड म्हणजे भारतातील चळवळीचा कालखंड होता एकीकडे नावापुरते का होईना इंग्रजाचे कायद्याचे राज्य होते तर दुसरीकडे समाजाने घालून दिलेले नियम जातीयता अंधश्रद्धा स्त्री-पुरुष असमानता आर्थिक विषमता या बाबी होत्या. महात्मा ज्योतिबा फुले यांनी अशावेळी मधला मार्ग निवडला तो म्हणजे सत्यशोधकीय मार्ग होय. त्यांनी हा मार्ग आपली लेखनी चालून सुरू केला म्हणजेच सार्वजनिक सत्यधर्म आणि गुलामगिरी या ग्रंथामधून त्यांनी या साहित्य प्रवाहाला चालना दिली. कोणतेही साहित्य लेखन हे आपला वेगळा प्रभाग घेऊन येते त्याचप्रमाणे सत्यशोधकीय साहित्य लेखन आणि आपला वेगळा प्रवाह आणला त्यामध्ये विविध साहित्य प्रवास निर्मिती स्त्री-पुरुषांचा सहभाग ग्रामीण शहरी स्वतःच्या प्रकाशन संस्था स्वतंत्र वेगळी लिखाण हे निकष असतात हे सर्व निकष सत्यशोधक साहित्यातून दिसून येतात. महात्मा ज्योतिबा फुले यांनी सत्यशोधिके साहित्य लेखणीची परंपरा सुरू केली. त्यानंतर त्यांच्या पावलावर पाऊल ठेवत एक शृंखलाच तयार झाली होती. हा कालखंड सत्यशोधके साहित्याचा सुवर्णकाळ म्हणून ओळखला जातो कारण या कालखंडात एकूण दहा अधिवेशने संपन्न झाली व नवनवीन सत्यशोधकीय विचार मांडणारे लेखन प्रकाशात आले.

जेव्हा सर्वात छळवाद असाह्य होतो तेव्हा त्याविरुद्ध असंतोषाची आग घुमू लागते प्रसंगपरत्वे भडकतेही हिंदू धर्माच्या रूढ स्वरूपाबद्दल व धर्माच्या नावाखाली केलेल्या चालीरीती वृत्तवैकल्य आदी बदल तसेच देवाधर्माच्या नावाखाली चाललेल्या हुंडा ई. बदल संबंध देशभर असंतोष निर्माण झाला. विज्ञानाचा स्पर्श होऊन त्यांना चिकित्सेच्या पायावर व आधारलेली नवी दृष्टी प्राप्ती झाली. चिकित्सक दृष्टिकोनातून पाहताना त्यांना रूढ धर्माचे स्वरूप भोंगळ दिसू लागले. ते त्यांना कालबाह्य वाटू लागले महाराष्ट्रात हा बंडाचा झेंडा प्रार्थना समाजाने दबकतदबकत उभारला तर ज्योतिराव फुले यांनी सर्वसाक्षी जगतपती त्याला नकोच मध्यस्थी अशी गर्जना आणि मानवी समतेचा उद्घोष करित सत्यशोधक समाजाचा झेंडा आघाडीवर आणला कर्मवीर विठ्ठल रामजी शिंदे यांनी यासंबंधी म्हटले आहे की "सत्यशोधक समाजाविषयी म्हटले आहे सत्यशोधक समाज वास्तविक सर्वश्री ब्राह्मणाच्या विरुद्ध नसून भिक्षुक वर्गा विरुद्ध आहे परंतु भिक्षुक वर्गाच्या अन्याय मागण्याचाही जेव्हा जेव्हा ब्राह्मण गृहस्थ वर्गाकडूनही पुरस्कार होऊ लागला तेव्हा मात्र ज्ञान व शिस्त यांना पारखा असणारा ब्राह्मणेत्तर पक्ष चिडून जाऊन आघाचा मागून प्रत्याघात म्हणतात त्या न्यायाने फारच जोराचा प्रतिकार करू लागला विठ्ठल रामजी शिंदे पुढे म्हणतात हिंदू जनतेच्या कल्याणाचा विचारदृष्टी पुढे ठेवून भिक्षुक वर्गातील लोकांकडून निशंकपणे धर्माच्या नावावर अडाणी लोकांवर जो जुलून होत असतो त्याला योग्य आळा बसेल अशी त्यांनी तजवीज या सत्यशोधक धर्मांमध्ये केली पाहिजे"

संशोधनाची उद्दिष्टे-

- १) डॉ. श्रीराम गुंदेकर यांचे चरित्र कार्य अभ्यासणे.
- २) डॉ. श्रीराम गुंदेकर यांनी सत्यशोधकी साहित्य लेखनात दिलेले योगदान अभ्यासणे.
- ३) सत्यशोधक समाजाचा जी मांडणी केली आहे त्याचा अभ्यास करणे.
- ४) डॉ. श्रीराम गुंदेकर यांच्या दृष्टिकोनाचा अभ्यास करणे.
- ५) डॉ. श्रीराम गुंदेकर यांच्या लेखनाला सत्यशोधक समाजाचा आधार आहे का याचा शोध घेणे.

महात्मा ज्योतिबा फुले यांच्या सत्यशोधक विचाराचा प्रचार करण्यासाठी आधुनिक मराठी साहित्यमध्ये ग्रामीण सामाजिक कादंबरी कृष्णराव भालेकर यांनी लिहिलेली ती म्हणजे बळीबा पाटील या कादंबरीमध्ये त्यांनी शेतकऱ्याविषयीचा विचार शेतकऱ्यांच्या आणि शेतीच्या उन्नतीसाठी ते कसे प्रयत्नशील राहिले शेती उत्पादन तंत्र यासाठी काही मशनरी तयार करण्याचा प्रयत्न शेतीमाला थेट योग्य भाव मिळावा यासाठी केलेली प्रयत्न सहकारी कृषी औद्योगिक संबंध निर्माण करण्याचा प्रयत्न बळीबा पाटील ही कादंबरी १८८६ लिहिली तत्कालीन ग्रामीण माणूस शेतकरी एकत्र कुटुंबपद्धती गावगाडा पद्धती गावोगाव भट कुलकर्णी मारवाडी मुसलमान अस्पृश्य यांची स्थान कसे असते याचे चित्रण या कादंबरीमध्ये आलेले आहे. यापुढे ताराबाई शिंदे यांनी स्त्रीपुरुष तुलना हा ग्रंथलिहिला. या ग्रंथांमध्ये धर्म आणि धर्माचा फोलपणा महात्मा फुले यांचा स्त्रीमुक्तीचा विचाराचा पैलू ताराबाई शिंदे यांनी निर्भीडपणे पुराव्यासह मांडला आहे. आधुनिक काळामध्ये स्त्रीमुक्तीच्या विचाराचा प्रारंभ ताराबाई शिंदे यांच्यापासून होतो. ताराबाई शिंदे यांचे व्यक्तिमत्त्व अतिशय तर्कशुद्ध आणि बुद्धीप्रमाणे वादीभूमिकेने त्यांनी आपला निबंध केला आहे. त्यांना त्या काळातील सुधारणावादी आणि सुधारणाविरोधी समाज संस्था वर्तमानपत्रे आणि व्यक्ती ज्ञात आहे. साहित्य आणि मानवी मनाचे पोषण होते सत्यशोधकीय साहित्याच्या माध्यमातून ज्या पूर्वी चालीवृत्ती परंपरा रूढी अमलात आणल्या होत्या वर्णभेद लिंगभेद जातीभेद आव्हान करणे स्त्रीचा अवमान करणे या ज्या चालीरीती होत्या या चालीरीतीवर प्रकषिणे विरोध करण्याचे काम तत्कालीन सत्यशोधकीय साहित्याने केले आहे. वर्णभेद जातीभेद आणि स्त्रीदास्य प्रथा या वाईट आहेत. माणसाची माणुसकी हिरावून घेणारे आहेत ब्राह्मणी धर्म इतरांना गुलामगिरी ठेवण्याची व्यवस्था आहे समाजाला सार्वजनिक धर्माची गरज आहे समता स्वातंत्र्य न्याय या नैतिक मूल्यांचा सत्यशोधकीय साहित्याने आत्मीयतेने आणि निर्भयपणे पुरस्कार केलेला आपणास दिसून येतो.

सर्वसमावेशक साहित्यप्रवाह-

या साहित्यप्रवाहामध्ये अगदी प्रारंभपासून सर्व वर्ण जातीचे साहित्यिक

लेखन करत काही साहित्यिक घेष्ट सत्यशोधक समाजाचे सभासद नव्हते तरी सत्यशोधन हीच त्यांचे लेखन प्रेरणा होती सावित्रीबाईंच्या शाळेतील मुक्ता शाळेचे नावाच्या मातंग मुलीने लिहिलेला निबंध स्वतंत्र अभ्यास करणे एवढा पात्रतेचा आहे. सत्यशोधक साहित्य परंपरेमध्ये जातीतील लेखक आत्मविश्वासाने समर्थ लेखन करित आहेत. स्त्रियांचा सहभागी महत्वाचे वैशिष्ट्ये या प्रवाहामध्ये आधुनिक काळात आढळते समाजातील विषमता अन्याय या बरोबरच मानवी मनातील दाणेबाणे भाव संघर्ष याचेही चित्रण या प्रवाहातून येत आहे. सर्वसामान्य माणसाचा त्यांच्या यथावेदनाचा जिवंत आविष्कार आहे. त्यांच्या हर्षखेदाचा यथा अपयशाचे अक्षरसाहित्य आहे. या साहित्याची अपेक्षा केली दुर्लक्ष केले तरी या परंपरा टिकून राहणाऱ्या आहेत. सत्यशोधकीय साहित्य प्रवाहामध्ये जीवन मूल्यांचा आणि साहित्य मुलांचा पुरस्कार केला आहे. ब्राह्मणी धर्माला नकार देऊन सार्वजनिक सत्यधर्माचा पुरस्कार करून उच्च दर्जाच्या नैतिक मूल्यांचा पुरस्कार या साहित्यामध्ये केलेला आहे सत्यशोधकसाहित्यामध्ये माणसाकडे माणूस म्हणून पाहणे वर्णजाती विषयक दृष्टिकोनाचे विसर्जन करणे लिंगभेदातील दृष्टिकोनाचा अंगीकारकरणे क्षमता स्वातंत्र्य न्यायाचा आग्रह धरणे वर्ण जाती लिंग व्यवस्थेने बहाल केले विशेष अधिकारना कारणे स्वकृत्व स्वप्रयत्नावर विश्वास ठेवणे सचोटी प्रामाणिकपणा चारित्र्य नैतिक मूल्य चारित्र्यत्या सद्गुणाचा स्वीकार करून तसे आचरण करणे यावर सत्यशोधकीय चळवळीचा जास्त भर होता.

सत्यशोधक समाजाचे ध्येय उद्दिष्टे

फुल्यांच्या मृत्यूनंतर सत्यशोधक समाजाची ठराव पास झाले त्यात सत्यशोधक समाजाची तीन ध्येय उद्दिष्टे सांगितली आहे.

- १) सर्व माणसे एकाच देवाचे लेकरे आहेत.
- २) आईलावडिलांना भेटण्यासाठी किंवा वडिलांना प्रसन्न करण्यासाठी ज्याप्रमाणे मध्यस्थीची गरज नसते. त्याच प्रमाणे देवाची प्रार्थना करण्यास पुरोहित किंवा गुरु याची गरज नाही.
- ३) वरीलतत्त्वे कबूल असल्यास कोणासही सत्यशोधक समाजाचे सभासत्व होता येते.

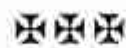
सत्यशोधक समाजाचे सभासद होताना सर्वमाणसे भावंडे आहे अशा पद्धतीने वांग्याची धार्मिक विधी करताना मध्यस्तीची मदत न घेण्याची आपल्या मुलामुलींना सुशिक्षित करण्याची अशी तत्त्वप्रणाली सत्यशोधक समाजाने मानली आहे.”^२

समारोप

अशाप्रकारे आपणास डॉ. श्रीराम गुंदेकर यांचे सत्यशोधकीय साहित्यलेखन या शोधनिबंधाच्या माध्यमातून श्रीराम गुंदेकर यांनी सत्यशोधकीय साहित्य म्हणजे काय त्याच्या प्रमुख प्रेरणा कोणत्या आहेत. त्याचे उद्दिष्ट काय आहे या सर्वबाबींचा विचार त्यांनी या ग्रंथांमध्ये केलेला आहे सत्यशोधकीय साहित्य हे मानव मूल्याची जोपासना करणारे साहित्य आहे हीच मूळ प्रेरणा घेऊन सत्यशोधकीय साहित्यनिर्मिती झालेली आपणास दिसून येते. या ग्रंथाच्या आधारे त्यांनी प्राचीन काळापासून आधुनिक काळापर्यंत सत्यशोधकीय समाजाचे ध्येय उद्दिष्टे घेऊन कशा प्रकारे साहित्यनिर्मिती झाली आहे. याचा विचार समग्र ग्रंथावरून मांडला आहे.

संदर्भग्रंथ-

- १) मा. पमंडकर, कर्मवीर शिंदे यांचे जीवन कार्य, पृष्ठ क्रमांक-२३
- २) प्राचार्य डॉ. एस .एस. गाठाळ, महाराष्ट्रातील सत्यशोधक व ब्राह्मणेतर चळवळ स्वरूप व वाटचाल, कैलास पब्लिकेशन, औरंगपुरा औरंगाबाद, पृष्ठक्रमांक- १३
- ३) संपा. धनंजयकीर, डॉ. सं. ग.मालसे, डॉ. य . दि.फडके, महात्मा फुले समग्र वांग्मय, महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ नवीन प्रशासन भवन मंत्रालया समोर मुंबई.
- ४) संपा. हरी नरके, महात्मा फुले गौरव ग्रंथ, डॉ. बाबासाहेब आंबेडकर महात्मा फुले आणि राजश्री शाहू चरित्र साधने प्रकाशन समिती महाराष्ट्र शासन.





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Azadi ka
Amrit Mahotsav



स्वातंत्र्योत्तर भारत : आर्थिक आणि सामाजिक विकास



संपादक : डॉ. विलास खंदारे

स्वातंत्र्योत्तर भारत : आर्थिक आणि सामाजिक विकास

ISBN : 978-93-91220-89-1

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संपादक

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प्रकाशक

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अपूर्व पब्लिशिंग हाऊस

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मो. 9763830016

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मूल्य :

टॉप : या पुस्तकात प्रकाशित झालेल्या लेखासंदर्भातील मते स्वतः लेखकाचे असून त्यास संपादक, संपादक मंडळ तसेच प्रकाशक सहमत असतीलच असे नाही.

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डॉ. नवनाथ जानोबा पवळे

• कालिदासदेवी कला, आणि नव्य व विज्ञान महाविद्यालय शिर्डी वारडार

❖ प्रस्तावना-

संपूर्ण मानवी क्षमतेचा विकास करण्यासाठी आणि संपूर्ण मानवी क्षमता साध्य करण्यासाठी तसेच न्याय व समानतेने सर्वांगीण विकास करण्याच्या दृष्टीने शिक्षण हे अत्यंत महत्त्वपूर्ण आहे. राष्ट्रीय विकासाला चालना तसेच सामाजिक विकासाला चालना देण्यासाठी सार्वत्रिक, दर्जेदार शिक्षण उपलब्ध करणे आवश्यक आहे. भारताच्या आर्थिक प्रगतीसाठी आणि जागतिक नैतृत्वाच्या दृष्टीने सामाजिक न्याय आणि समानता, वैज्ञानिक प्रगती, राष्ट्रीय एकात्मता आणि सांस्कृतिक संरक्षण, सार्वत्रिक उच्च गुणवत्तेचे शिक्षण हा आपला विकास करण्याचा आणि जास्तीत जास्त प्रगती करण्याचा सर्वोत्तम मार्ग आहे. व्यक्ती, समाज, देश आणि राष्ट्र यांच्या उन्नतीसाठी देशातील समृद्ध प्रतिभा आणि संसाधन जागतिक पुढील दशकात, भारत जगातील सर्वात जास्त तरुण लोकसंख्याचा देश असेल, आणि त्यांना उच्च दर्जाच्या शैक्षणिक संधी उपलब्ध करून देण्याची आपली क्षमता आपले पुढील भविष्य ठरवेल. तुम्हा सर्वांना माहित आहे की, अलोकडेंच मनुष्यबळ व्यवस्थापन मंत्रालयाने शैक्षणिक धोरणात बदल केला आहे. इसोचे प्रमुख डॉ. के. करतुरंगान यांच्या अध्यक्षतेखाली हा बदल करण्यात आला आहे.

❖ राष्ट्रीय शिक्षण धोरण -

1986 मध्ये तयार करण्यात आले. आणि 1992 मध्ये सुधारित करण्यात आले. तेव्हापासून अनेक बदल झाले आहेत. ज्या धोरणात सुधारणा करण्याची आवश्यकता आहे. NEP 2020 हे 21 व्या शतकातील पहिले शैक्षणिक धोरण आहे. आणि ते चौदाव्या वर्षे जुन्या शिक्षणाबरोबर, राष्ट्रीय धोरण (NPE), 1986 च्या जागा घेतं. प्रवेश, समानता, गुणवत्ता, परवडणारी क्षमता आणि उत्तरदायित्व या

मूलभूत स्तंभांवर आधारित हे धोरण आहे. हे धोरण शाश्वत विकाससाठी 2030 च्या अर्जेंटाशी संरेखित आहे आणि शालेय आणि महाविद्यालयीन शिक्षण अधिक समग्र, लवचिक, बहुविधशाखायुक्त, 21 व्या शतकातील गरजांना अनुकूल बनवून भारताला एक मजबूत विद्वान समाज आणि जागतिक विद्वान महासत्ता बनवण्याचे उद्दिष्ट आहे. 21 व्या शतकातील गरजांसाठी उपयुक्त आणि प्रत्येक विद्यार्थ्यांच्या अद्वितीय क्षमता विकसित करण्याच्या उद्देशाने राष्ट्रीय शैक्षणिक धोरणांतर्गत शाळा-महाविद्यालयांमधील शिक्षणाचे धोरण तयार केले जाते. भारत सरकारने नवीन राष्ट्रीय शैक्षणिक धोरण 2020 लॉच केले आहे. केंद्र सरकारने शैक्षणिक धोरणात अनेक मोठे बदल केले आहेत. राष्ट्रीय शैक्षणिक धोरणाद्वारे भारताला जागतिक विद्वान महासत्ता बनवणे, आता मनुष्यबळ व्यवस्थापन मंत्रालय हे शिक्षण मंत्रालय म्हणून ओळखले जाईल. राष्ट्रीय शैक्षणिक धोरणांतर्गत, 2030 पर्यंत शालेय शिक्षणात 100% GER सह प्रोस्कूल ते माध्यमिक शाळेपर्यंत शिक्षणाचे सार्वत्रिकीकरण केले जाईल (वैद्यकीय आणि कायद्याचा अभ्यास समाविष्ट नाही). याआधी 10+2 चा पॅटर्न पाळला जात होता. पण आता 5+3+3+4 हा नवीन शिक्षण पॅटर्न धोरणानुसार फांलो केला जाईल. 2014 च्या सार्वत्रिक निवडणुकीत भारतीय जनता पक्षाच्या जाहीरनाम्यात या राष्ट्रीय शैक्षणिक धोरणाचा समावेश करण्यात आला होता.

❖ संशोधनाचे उद्दिष्टे-

- 1) नवीन शैक्षणिक धोरणाची रूपरेषा समजावून घेणे.
- 2) नवीन शैक्षणिक धोरण विद्यार्थ्यांसाठी किती उपयुक्त आहे हे समजावून घेणे.
- 3) नवीन शैक्षणिक धोरण व पूर्वीचे धोरण यामधील फरक जाणून घेणे.

- ४) नवीन शैक्षणिक धोरणाचे उद्दिष्टे जाणून घेणे.
 ५) नवीन शैक्षणिक धोरणामधील महत्त्वाच्या वावी जाणून घेणे.

❖ **संशोधनासाठी संशोधन पद्धती-**

या शोधनिबंधासाठी मो आस्थादात्मक समीक्षा पद्धती. वर्णनात्मक समीक्षा पद्धतीचा वापर केलेला आहे.

❖ **नॅशनल एजुकेशन पॉलिसी 2023 अंतर्गत शालेय शिक्षण सार्वत्रिक प्रवेश सुनिश्चित करणे-**

NEP2023 सर्व स्तरांवर शालेय शिक्षणासाठी सार्वत्रिक प्रवेश सुनिश्चित करण्यावर लक्ष केंद्रित करण्यात येईल : प्रांस्कूल ते माध्यमिक, पायाभूत सुविधा, सोडून गेलेल्यांना पुन्हा मुख्य प्रवाहात आणण्यासाठी नाविन्यपूर्ण शिक्षण केंद्रे, विद्यार्थ्यांचा आणि त्यांच्या शिकण्याच्या पातळीचा मागावा घेणे, शिक्षणाच्या औपचारिक आणि अनौपचारिक अशा दोन्ही पद्धतीसह शिक्षणाचे अनेक मार्ग सुलभ करणे. शाळांसोबत समुपदेशक किंवा प्रशिक्षित सामाजिक कार्यकर्त्यांची संघटना, NIOS द्वारे आणि राज्य मुक्त शाळांद्वारे इयत्ता 3,5 आणि 8 साठी खुले शिक्षण, तसेच इयत्ता 10 आणि 12 च्या समतुल्य माध्यमिक शिक्षण कार्यक्रम, व्यावसायिक अभ्यासक्रम, प्रौढ साक्षरता आणि जीवन-संबंधन कार्यक्रम. हे सर्व साध्य करण्याचे काही प्रस्तावित मार्ग आहेत. NEP2022 अंतर्गत सुमारे 2 कोटी शाळाबाह्य मुलांना पुन्हा मुख्य प्रवाहात आणले जाईल.

❖ **नॅशनल एजुकेशन पॉलिसी: प्रारंभिक बाल संगोपन आणि शिक्षण व नवीन अभ्यासक्रम आणि अध्यापनशास्त्रीय संरचना -**

प्रारंभिक बाल संगोपन आणि शिक्षणावर भर देऊन, शालेय अभ्यासक्रमाची 10+2 रचना अनुक्रमे 3-8, 8-11, 11-14 आणि 14-18 वर्षे वयोगटातील 5+3+3+4 अभ्यासक्रमाच्या रचनेने बदलली जाणार आहे. चामूळ आतापर्यंत वगळण्यात आलेले 3-6 वर्षे वयोगट शालेय अभ्यासक्रमांतर्गत आणले जाईल. ज्याला जागतिक स्तरावर मुलांच्या मानसिक क्षमतांच्या विकासातील महत्त्वाचा टप्पा म्हणून ओळखले जाते. नवीन प्रणालीमध्ये 12 वर्षांचे शालेय शिक्षण आणि तीन वर्षांचे अंगणवाडी/प्री-स्कूलिंग असेल.

NCERT 8 वर्षांपर्यंतच्या मुलांसाठी अर्ली चाइल्डहुड केंडर अँड एज्युकेशन (NCPFECCE) साठी राष्ट्रीय अभ्यासक्रम आणि शिक्षण फ्रेमवर्क विकसित करेल. अंगणवाड्या आणि शिक्षकांसह प्री-स्कूल असलेल्या संस्थांच्या लक्षणांय विस्तारित आणि मजबूत प्रणालीद्वारे ECCE विस्तारित केले जाईल. आणि अंगणवाडी संविकांना ECCE अध्यापनशास्त्र आणि अभ्यासक्रमात प्रशिक्षित केले जाईल. ECCE चे नियोजन आणि अंमलबजावणी मानव संसाधन विकास मंत्रालय, महिला आणि बाल विकास (WCD), आरोग्य आणि कुटुंब कल्याण (HFW) आणि आदिवासी व्यवहार मंत्रालयांद्वारे संयुक्तपणे केले जाईल

❖ **NEP 2023 अंतर्गत मूलभूत साक्षरता आणि संख्याशास्त्र आत्मसात करणे-**

मूलभूत साक्षरता आणि संख्याशास्त्र शिकण्यासाठी तातडीची आणि आवश्यक पूर्वतयारी म्हणून, NEP2023 मध्ये MHRD द्वारे मूलभूत साक्षरता आणि संख्याशास्त्रावर राष्ट्रीय मिशनची स्थापना करण्याचे आवाहन करण्यात आले आहे. 2025 पर्यंत सर्व प्राथमिक शाळांमधील संपूर्ण विद्यार्थ्यांसाठी सार्वत्रिक मूलभूत साक्षरता आणि संख्यात्मकता प्राप्त करण्यासाठी राज्ये एक अंमलबजावणी योजना तयार करतील. यासाठी राष्ट्रीय प्रोत्साहन धोरण तयार केले जाणार आहे.

❖ **शालेय अभ्यासक्रम आणि अध्यापन शास्त्रातील सुधारणा-**

शालेय अभ्यासक्रम आणि अध्यापनशास्त्राचे उद्दिष्ट, विद्यार्थ्यांना 21 व्या शतकातील प्रमुख कौशल्यांसह सुसज्ज करून, अभ्यासक्रमातील सामग्री कमी करून आणि आवश्यक शिक्षण आणि गंभीर विचार वाढवण्यासाठी अनुभवात्मक शिक्षणावर अधिक लक्ष केंद्रित करून. सर्वांगीण विकास साधण्याचे उद्दिष्ट असेल. त्यामुळे विद्यार्थ्यांची लवचिकता आणि विषयांची निवड वाढेल. कला आणि विज्ञान, अभ्यासक्रम आणि अतिरिक्त अभ्यासक्रम आणि व्यावसायिक आणि शैक्षणिक प्रवाहांमध्ये कोणतेही कठोर पृथक्करण केले जाणार नाही. शाळांमध्ये 6 वी पासून व्यावसायिक शिक्षण सुरू होईल आणि त्यात इंटर्नशिपचा समावेश असेल. शालेय शिक्षणासाठी एक नवीन आणि व्यापक राष्ट्रीय

अभ्यासक्रम फ्रेमवर्क, NCFSE 2020-21, NCERT द्वारे विकसित केले जाईल.

❖ **NEP 2023: बहुभाषिकता आणि भाषेची शक्ती-**

या धोरणात किमान इयत्ता 5 वी पर्यंत शिक्षणाचे माध्यम म्हणून मातृभाषा/स्थानिक भाषा/प्रादेशिक भाषा यावर जोर देण्यात आला आहे, परंतु प्राधान्याने इयत्ता 8 वी पर्यंत आणि त्यापुढील. त्रिभाषा सूत्रासह शालेय आणि उच्च शिक्षणाच्या सर्व स्तरावरील विद्यार्थ्यांसाठी पर्याय म्हणून संस्कृतचा वापर केला जाईल. भारतातील इतर अभिजात भाषा आणि साहित्य देखील पर्याय म्हणून उपलब्ध असतील. कोणत्याही विद्यार्थ्यांवर कोणतीही भाषा लादली जाणार नाही. 'एक भारत श्रेष्ठ भारत' उपक्रमांतर्गत, विद्यार्थी कधी-कधी इयत्ता 6-8 मध्ये 'भारतातील भाषा या विषयावरील मजेदार प्रकल्प/क्रियाकलापांमध्ये सहभागी होतात. माध्यमिक स्तरावर अनेक परदेशी भाषा देखील दिल्या जातील. भारतीय सांकेतिक भाषा (ISL) देशभरात प्रमाणित केली जाईल आणि श्रवण-अशक्त विद्यार्थ्यांच्या वापरासाठी राष्ट्रीय आणि राज्य अभ्यासक्रमाची सामग्री विकसित केली जाईल.

❖ **नॅशनल एजुकेशन पॉलिसी 2023: मूल्यांकन सुधारणा -**

NEP2023 सममितीय मूल्यांकनातून नित्य आणि फॉर्मेटिक अससेसमेंटकडे वळण्यात येईल, जे अधिक सक्षमतेवर आधारित आहे, शिक्षण आणि विकासाचा चालना देणे आणि विश्लेषण, गंभीर विचार आणि संकल्पनात्मक स्पष्टता यासारख्या उच्च-क्रम कौशल्यांची चाचणी करणे. सर्व विद्यार्थी इयत्ता 3, 5 आणि 8 मधील शालेय परीक्षांना बसतील ज्या योग्य प्राधिकरणाद्वारे घेतल्या जातील. इयत्ता 10 आणि 12 च्या बोर्ड परीक्षा सुरु राहतील परंतु उद्दिष्ट म्हणून सर्वांगीण विकासासह पुनर्रचना केली जाईल. एक नवीन राष्ट्रीय मूल्यमापन केंद्र, PARKH (सार्वभौमिक विकासासाठी कार्यप्रदर्शन मूल्यांकन, पुनरावलोकन आणि विश्लेषण) एक मानक-सेटिंग संस्था म्हणून स्थापित केले जाईल.

NEP 2023: न्याय्य आणि सर्वसमावेशक शिक्षण-

NEP 2023 चे उद्दिष्ट जन्माच्या परिस्थितीमुळे किंवा पार्श्वभूमीमुळे कोणत्याही मुलाने

शिकण्याची आणि उत्कृष्ट कामगिरी करण्याची संधी गमावू नये, हे सुनिश्चित करणे. सामाजिक आणि आर्थिकदृष्ट्या वंचित गटांवर (SEDGs) विशेष आणि दिला जाईल, ज्यात लिंग, सामाजिक-सांस्कृतिक, आणि भौगोलिक ओळख आणि अपंग यांचा समावेश आहे. यामध्ये वंचित प्रदेश आणि गटांसाठी जेडर इन्क्लुजन फंड आणि विशेष शैक्षणिक क्षेत्रांची स्थापना समाविष्ट आहे.

अपंग मुलांना मूलभूत अवस्थेपासून ते उच्च शिक्षणापर्यंतच्या नियमित शालेय प्रक्रियेत पूर्णपणे सहभागी होण्यास सक्षम केले जाईल, क्रॉस अपंगत्व प्रशिक्षण, संसाधन केंद्रे, राहण्याची सोय, सहाय्यक उपकरणे, योग्य तंत्रज्ञान-आधारित साधने आणि इतर सहाय्यक यंत्रणेसह शिक्षकांच्या समर्थनासह. त्यांच्या गरजा पूर्ण करण्यात येईल. प्रत्येक राज्य/जिल्ह्याला कला-संबंधित, करिअर-संबंधित आणि खेळ-संबंधित क्रियाकलापांमध्ये सहभागी होण्यासाठी विशेष दिवसाच्या बॉर्डिंग स्कूल म्हणून "बाल भवन्स" स्थापन करण्यासाठी प्रोत्साहित केले जाईल. मोफत शाळेच्या पायाभूत सुविधांचा उपयोग सामाजिक चेतना केंद्र म्हणून केला जाऊ शकतो.

❖ **NEP 2023: मजबूत शिक्षक भरती आणि करिअर मार्ग-**

एका मजबूत, पारदर्शक प्रक्रियेद्वारे शिक्षकांची भरती केली जाईल. पदोन्नती गुणवत्तेवर आधारित असतील, ज्यामध्ये बहु-स्रोत नियतकालिक कार्यप्रदर्शन मूल्यमापन आणि शैक्षणिक प्रशासक किंवा शिक्षक शिक्षक होण्यासाठी उपलब्ध प्रगती पथ यांचा समावेश आहे. NCERT, SCERT, शिक्षक आणि तज्ञ संस्था यांच्याशी सल्लामसलत करून 2022 पर्यंत शिक्षकांसाठी एक समान राष्ट्रीय व्यावसायिक मानक (NPST) विकसित केले जाईल.

❖ **नॅशनल एजुकेशन पॉलिसी 2023 उद्दिष्टे-**

नॅशनल एजुकेशन पॉलिसी 2023 चे मुख्य उद्दिष्ट भारतात दिले जाणारे शिक्षण जागतिक स्तरावर आणणे आहे. जेणेकरून भारत जागतिक ज्ञान महासत्ता बनू शकेल. नॅशनल एजुकेशन पॉलिसीद्वारे शिक्षणाचे सार्वत्रिकीकरण केले जाईल. सरकारच्या माध्यमातून नॅशनल एजुकेशन पॉलिसी 2023 मध्ये जुन्या शैक्षणिक धोरणात अनेक सुधारणा करण्यात

आल्या आहेत. जेणेकरून शिक्षणाचा दर्जा सुधारेल आणि मुलांना चांगले शिक्षण घेता येईल. नॅशनल एजुकेशन पॉलिसीच्या अंमलबजावणीसाठी GDP च्या 6% खर्च केला जाईल.

- अभ्यासामध्ये संस्कृत आणि भारतातील इतर प्राचीन भाषांचा अभ्यास करण्याचा पर्याय असेल. विद्यार्थ्यांना हवे असल्यास या भाषांचा अभ्यास करता येईल.
- बोर्डांच्या परीक्षांमध्येही बदल केले जातील. असे होऊ शकते की विद्यार्थ्यांवरील ओझे कमी करण्यासाठी बोर्डांच्या परीक्षा वर्षातून दोनदा घेतल्या जातात.
- आर्टिफिशियल इंटेलिजन्स सॉफ्टवेअर देखील अभ्यास सुलभ करण्यासाठी वापरला जाईल.
- उच्च शिक्षणातून एमफिल पदवी रद्द केली जात आहे.

अभ्यासक्रमेतर उपक्रम मुख्य अभ्यासक्रमात समाविष्ट केले जातील.

विद्यार्थ्यांना 3 भाषा शिकवल्या जातील ज्या राज्य स्वतःच्या स्तरावर ठरवेल.

शालेय शिक्षणासाठी राष्ट्रीय अभ्यासक्रम आराखडा राष्ट्रीय शैक्षणिक संशोधन आणि प्रशिक्षण परिषद तयार करेल.

या नवीन शैक्षणिक धोरणाची अंमलबजावणी करण्यासाठी, अनेक संस्था स्थापन केल्या जातील जेणेकरून हे धोरण सुरळीत चालेल.

नवीन राष्ट्रीय शैक्षणिक धोरणांतर्गत मुलांच्या शिक्षणासोबत त्यांच्या कौशल्यावर विशेष लक्ष दिले जाईल.

नवीन शैक्षणिक धोरणांतर्गत, जर एखाद्या विद्यार्थ्याला एखादा अभ्यासक्रम मध्यभागी सोडून दुसऱ्या अभ्यासक्रमात प्रवेश घ्यायचा असेल, तर तो पहिल्या अभ्यासक्रमातून ठराविक काळासाठी ब्रेक घेऊन दुसऱ्या अभ्यासक्रमात सहभागी होऊ शकतो.

♦ नॅशनल एजुकेशन पॉलिसी 2023 महत्वपूर्ण वैशिष्ट्ये-

29.07.2020 रोजी राष्ट्रीय शैक्षणिक धोरण 2020 जाहीर करण्यात आले. राष्ट्रीय शैक्षणिक धोरण 2020 मध्ये शालेय शिक्षण तसेच तांत्रिक शिक्षणासह उच्च शिक्षणामध्ये विविध सुधारणा सुचवल्या आहेत. राष्ट्रीय शैक्षणिक धोरण

2020 मध्ये शालेय शिक्षण तसेच उच्च शिक्षणामध्ये अंमलबजावणीसाठी अनेक कृती मुद्दे/क्रियाकलापांचा उल्लेख केला आहे.

♦ खालील NEP 2023 ठळक मुद्दे-

पूर्व-प्रार्थमिक शाळा ते इयत्ता 12 पर्यंत शालेय शिक्षणाच्या सर्व स्तरांवर सार्वत्रिक प्रवेश सुनिश्चित करणे

गुणवत्तापूर्ण बालसंगोपन, 3-6 वयोगटातील सर्व मुलांसाठी आणि तसेच शिक्षण सुनिश्चित करणे नवीन अभ्यासक्रम आणि अध्यापनशास्त्रीय संरचना (5+3+3+4)

कला आणि विज्ञान, अभ्यासक्रम आणि अतिरिक्त अभ्यासक्रम, व्यावसायिक आणि शैक्षणिक प्रवाहांमध्ये कोणतेही कटोर पृथक्करण नाही

- मूलभूत साक्षरता आणि संख्याशास्त्रावर राष्ट्रीय मिशनची स्थापना
- बहुभाषिकता आणि भारतीय भाषांच्या संवर्धनावर भर, किमान इयत्ता 5 पर्यंत शिक्षणाचे माध्यम, परंतु शक्यतो इयत्ता 8 वी आणि त्यापुढील, मातृभाषा/मातृभाषा/स्थानिक भाषा/प्रादेशिक भाषा असेल.
- मूल्यमापन सुधारणा — कोणत्याही शालेय वर्षात दोन वेळा बोर्डांच्या परीक्षेसाठी, एक मुख्य परीक्षा आणि इच्छित असल्यास सुधारणा करण्यासाठी.
- नवीन राष्ट्रीय मूल्यमापन केंद्र, पारख (परफॉर्मन्स असेसमेंट, रिव्ह्यू आणि अॅनालिसिस ऑफ नॉलेज फॉर समग्र डेव्हलपमेंट) ची स्थापना.
- न्याय्य आणि सर्वसमावेशक शिक्षण — सामाजिक आणि आर्थिकदृष्ट्या वंचित गटांवर (SEDGs) विशेष भर देऊन.
- वंचित प्रदेश आणि गटांसाठी स्वतंत्र लिंग समावेश निधी आणि विशेष शिक्षण क्षेत्र.
- शिक्षकांची भरती आणि गुणवत्तेवर आधारित कामगिरीसाठी एक मजबूत आणि पारदर्शक प्रक्रिया
- शाळा संकुल आणि क्लस्टर्सद्वारे सर्व संसाधनांची उपलब्धता सुनिश्चित करणे
- राज्य शाळा मानक प्राधिकरण (SSSA) ची स्थापना
- शालेय आणि उच्च शिक्षण प्रणालींमध्ये व्यावसायिक शिक्षणाचा संपर्क

- उच्च शिक्षणातील GER 50% पर्यंत वाढवणे
- एकाधिक प्रवेश/निर्गमन पर्यायांसह सर्वांगीण आणि बहु-विषय शिक्षण
- NTA HEI मध्ये प्रवेश घेण्यासाठी सामाईक प्रवेश परीक्षा घेईल
- शैक्षणिक बँक ऑफ क्रेडिटची स्थापना
- बहुविद्याशाखीय शिक्षण आणि संशोधन विद्यापीठे (MERUs) स्थापन करणे

- राष्ट्रीय संशोधन प्रतिष्ठान (NRF) ची स्थापना
- हलकें पण घट्ट नियमन.
- शिक्षक शिक्षणासह आणि वैद्यकीय आणि कायदेशीर शिक्षण वगळून उच्च शिक्षण क्षेत्राच्या प्रचारासाठी एकल व्यापक छत्र संस्था- भारतीय उच्च शिक्षण आयोग (HECI) - मानक सेटिंगसाठी स्वतंत्र संस्थांसह- सामान्य शिक्षण परिषद, निर्धो-उच्च शिक्षण अनुदान परिषद (HEGC), मान्यता- राष्ट्रीय मान्यता परिषद (एनएसी), आणि नियमन-राष्ट्रीय उच्च शिक्षण नियामक परिषद (NHERC).

• ग्रॉस एनरोलमेंट रेशो (GER) वाढवण्यासाठी खुल्या आणि दूरस्थ शिक्षणाचा विस्तार.

❖ राष्ट्रीय शैक्षणिक धोरण 2023 चे काही महत्त्वाचे मुद्दे-

- उच्च शिक्षणामध्ये योग्य प्रमाणपत्रासह अनेक प्रवेश आणि निर्गमन बिंदू असतील.
- पदवीपूर्व अभ्यासक्रम 3 किंवा 4 वर्षे कालावधीचे असू शकतात. ज्यामध्ये एक्झिटचे अनेक पर्याय असतील. यासोबत योग्य प्रमाणपत्र असेल जसे की एखाद्या विद्यार्थ्यांने 1 वर्षाच्या पदवीपूर्व अभ्यासक्रमात शिक्षण घेतले असल्यास, त्याला 2 वर्षांचा प्रगत डिप्लोमा, 3 वर्षांचा पदवीधर आणि 4 वर्षांच्या पदवीनंतर प्रमाणपत्र दिले जाईल. संशोधन पदवी दिली जाईल.
- एक शैक्षणिक बँक ऑफ क्रेडिटची स्थापना केली जाईल ज्यामध्ये विद्यार्थ्यांनी मिळवलेली डिजिटल अकादमी क्रेडिट्स विविध उच्च शिक्षण संस्थांद्वारे संग्रहित केली जातील आणि हस्तांतरित केली जातील आणि अंतिम पदवीपर्यंत मोजली जातील.
- नवीन राष्ट्रीय शैक्षणिक धोरणाचे उद्दिष्ट शिक्षणावर भर देऊन पाठ्यपुस्तकांवरचे अवलंबित्व कमी करण्याचे आहे.

नॅशनल टेस्टिंग एजन्सी उच्च शिक्षण संस्थांमध्ये प्रवेशासाठी सामाईक प्रवेश परीक्षा आयोजित करेल.

- 2030 पर्यंत प्रत्येक जिल्ह्यात किमान एक मोठी बहुविद्याशाखीय उच्च शिक्षण संस्था बांधली जाईल.
- नवीन शैक्षणिक धोरणाचे उद्दिष्ट 2040 पर्यंत सर्व उच्च शिक्षण संस्थांना बहु-अनुशासनात्मक बनविण्याचे आहे.
- संपूर्ण उच्च शिक्षणासाठी भारतीय उच्च शिक्षण आयोग ही एकच संस्था असेल. (वैद्यकीय आणि विधी शिक्षण वगळता)
- भारतीय उच्च शिक्षण आयोगाचे राष्ट्रीय उच्च शिक्षण नियामक परिषद, सामान्य शिक्षण परिषद, उच्च शिक्षण परिषद आणि राष्ट्रीय मान्यता परिषद अशा चार अनुलंब असतील.
- शैक्षणिक धोरणांतर्गत सरकारी आणि खाजगी शिक्षण समान असेल. आणि दिव्यांगांच्या शिक्षणात बदल केले जातील

❖ निष्कर्ष-

- 1) नवीन राष्ट्रीय शैक्षणिक धोरणाची रूपरेषा समजून घेतली आहे.
- 2) नवीन राष्ट्रीय शैक्षणिक धोरण हे विद्यार्थ्यांसाठी किती उपयुक्त आहे आणि या धोरणाचा विद्यार्थ्यांना किती उपयोग होणार आहे हे समजावून घेतले आहे.
- 2) नवीन शैक्षणिक धोरणामध्ये व्यवसायिक आणि भाषिक कौशल्यावर जास्त भर दिला गेला आहे.
- 3) नवीन शैक्षणिक धोरणामध्ये व्यवसायाभिमुख शिक्षण पद्धतीवर जास्त भर दिला गेला आहे.
- 4) पूर्वीचे शैक्षणिक धोरण आणि नवीन राष्ट्रीय शैक्षणिक धोरण यामध्ये बराचसा फरक आहे.

❖ समारोप-

नवीन राष्ट्रीय शैक्षणिक धोरण 2023 हे योग्य दिशेने टाकलेले पाऊल आहे. हे गंभीर विचार, अनुभवात्मक शिक्षण, परस्परसंवादी वर्ग, एकात्मिक अध्यापनशास्त्र आणि सक्षमतेवर आधारित शिक्षणावर लक्ष केंद्रित करते. सर्वसमावेशक डिजिटल शिक्षण हे धोरणाचा एक मजबूत घटक आहे. जर शिक्षण व्यवस्थेत गुंतवणूक केली गेली आणि धोरणात नमूद केलेल्या आकांक्षा पूर्ण करण्यासाठी सर्व राज्यांनी

सहकार्य केले, तर भारत आपल्या तरुण लोकसंख्येचा फायदा घेऊ शकेल. सशक्त शिक्षण प्रणालीद्वारे, भारत स्वतःला प्रस्थापित करण्याच्या दिशेने एक मोठे पाऊल उचलेल. एक ज्ञान महासत्ता, संपूर्ण मानवी क्षमता प्राप्त करण्यासाठी, न्याय आणि न्याय्य समाजाच्या विकासासाठी आणि राष्ट्रीय विकासाला चालना देण्यासाठी शिक्षण ही मूलभूत आवश्यकता आहे. संपूर्ण जग ज्ञानाच्या लँडस्केपमध्ये झपाट्याने बदल करत आहे. कोणत्याही समाजाच्या आणि देशाच्या सर्वांगीण विकासासाठी शिक्षण हा एक अत्यावश्यक आणि अपरिहार्य घटक आहे आणि ही गरज पूर्ण करण्यासाठी राष्ट्राने सर्वसमावेशक राष्ट्रीय शैक्षणिक धोरण तयार केले आहे. भारत सरकारने मंजूर केलेले नवीन राष्ट्रीय शैक्षणिक धोरण, 2023 हा या दिशेने एक महत्त्वाचा उपक्रम आहे. त्याचा अंमलबजावणी कशी होते यावर या नव्या शैक्षणिक धोरणाचे यश अवलंबून असेल. त्यामुळे असे म्हणता येईल की भारत हा सर्वांत तरुण लोकसंख्या असलेला देश आहे आणि या तरुणांना उच्च दर्जाच्या शैक्षणिक संधी उपलब्ध करून देण्यावर भारताचे भवितव्य अवलंबून असेल.

संदर्भ :

- <http://www.education.gov.in>
- National Education policy-2020-Minis-
- Try of human Resource Development, Government Of India





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POST INDEPENDENT INDIA

Editor : Dr. Vilas Khandare



Post Independent India

ISBN : 978-93-91220-08-2

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Editor

Dr. Vilas Khandare

Publisher :

Bharat Jamdhade

Apoorv Publishing House,

B-2/15, Sunny Center, Pisadevi Road, Aurangabad (M.S.)

Mob. 9049591747, 8177803216

Email : apoorvjamdhade@rediffmail.com

bharatjamdhade1976@gmail.com

Edition : 20 September 2023

Page Setting

Yajuwendra Wankar

Mob. 9763830016

Cover page

Nisarg Print, Bharat Bazar, MIDC, Chikalhana, Aurangabad

Price : ₹ 350

Note : The views expressed by the authors in their research papers in this book are their own. The Editor/ Publisher is not responsible for them. Author is responsible for any factual error Subject (MS) Jurisdiction.

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Cultural Tourist Place Hampi (Special Reference Lakxmi Narashima Temple)

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Abstract:- The Object of little Research Paper is, not only to give clear and brief description of Cultural Tourist Place Hampi and many more monuments and places present there during the Vijaynagra period. In this research paper focus on one of the special Place that is the Lakxmi Narashima Temple most of the visitor's visit this place. Hampi is any hamlet which grow up around the great Pampoti temple which stands on the southern bank of the *Tungabhadra River* in the Hotpet Taluka of the Bellary District in Karnataka. It is a great place of Pilgrimage for devotee from the surrounding country and word wide tourists.

Keywords- Hampi, Vijaynagra Empire, Laxmi Narashima

Introduction:-

The ruins at Hampi were brought to light in 1800 by an engineer and antiquarian named Colonel Collin Mackenzie. An employee of the English East India Company, he prepared the first survey map of the site. Much of the initial information he received was based on the testimonies of priests of the *Virupaksha* temple and the shrine of Pampadevi. Subsequently, from 1856 photographers began to record the monuments which enabled scholars to study them. As early as 1836 epigraphists began collecting several dozen inscriptions found at this and other temples at Hampi.

In an effort to reconstruct the history of the city and the empire, historians collated information from these sources with accounts of foreign travelers and other literature written in Telugu, Kannada, Tamil and Sanskrit. Hampi is a village located 13 km from Taluka of Hospet in the Bellary district of Karnataka state, Hampi is the erstwhile capital of the Vijaynagra Empire. Today, seeing the ruined palaces, idols of gods and goddesses, various stone arches, baths, the main road of the market, the side shops, the hills in the sky, all standing in ruins today, is mind-blowing. The magnificent and glorious history of Vijaynagra (city of victory) is South India in AD. A powerful Hindu empire from 1336 to 1565. When Krishna devaraya was the emperor in AD.

1503 to 1530 was the golden age of this empire. During the same period, Portuguese expatriate *Domigo Pies* stayed in Hampi as a guest of the imperial emperor. Their dailies are available in various languages and their descriptions are worth engraving in golden letters. It was famous as far as Iraq-Iran as the best noble city in the world, full of all comforts. "Persian traveler *Abdul Razak* writes, "My eyes have never seen a city so wonderful as Hampi, nor have I heard the name of any other city of its ruins."

At one point Hampi was also one of the biggest trading centers of the world. Vijaynagra brought a lot of wealth, fame and splendor to Hampi. In those times, most markets in Hampi were always crowded and swarming with buyers and also merchants. These merchants were not just Indians, but also people from various parts of the world. In no time, the markets grew tremendously and goods were exchanged for spices and cotton. In ancient times, the currencies were all silver and gold.

Foundation of Vijaynagra:-

Epigraphical evidence points to the fact that the Vijaynagra empire was founded in A.D. 1336, by two Hindu princes name Hakka and Bukka, sons of Sangma, the former of whom became the first king taking the name of Harihara, and his brother succeeded him shortly after this. The first *sangama* dynasty of Vijaynagra, who was Yadvas held the throne from 1336 to 1486, and conceded probably of nine kings. The *Saluva* dynasty was ruled only by two rulers in the name of Saluva Narasimha Deva and Immadi Narasimha. The *Tuluva* Dynasty was the third in a row to rule the Vijayanagara Empire.

Immadi Marasimha who initially ruled the dynasty was killed by Vira Narasimha who then took over the throne and made the *Tuluva* dynasty in 1505. The *Aravidu* Dynasty is the last dynasty of the Vijayanagara Empire and Tirumala was the founder. This dynasty was defeated and taken over by Bijapuri Muslims. Before the Vijayanagar Kings rose in this area, the city was ruled by Kampili and his chiefs. Kampili is now a quaint town that is situated 19 km on the east of Hampi. It was Colin Mackenzie who discovered

the ruins of Hampi in 1800. The Archeological Survey of India still does many excavations to discover the many beautiful temples and also other artifacts.

Vijaynagra in Inscriptions:-

If legendary history and local traditions be created, there was town on this site many centuries before the Vijaynagra kings selected it for their capital, some of the most dramatic scenes in the great epic of the Ramayana occurred at the place called *Kishkindha* and it is asserted by the local Brahmans and generally acknowledged by the learned in such matters that this *Kishkindha* was closed to Hampi. *Kishkinda* Vanara Kingdom is where Ram and Lakshman had stayed when they had set out in search of Sita who was abducted by Ravana. We will also find several spectacular mountains that are said to be spots where Ram, Hanuman, Sugreeva and Vall stayed. And because we are talking of Ramayana and its association with Hampi, the first thing that comes to mind is the Hazara Ram temple at Hampi that is one of the thousands of temples here.

The famous temples and monuments of Hampi:

Since Hampi is popular all over the world for its beautiful monuments and temples, here are some of them that you need to explore on your visit.

Virupaksha Temple

The temple's history is uninterrupted from about the 7th century. The Virupaksha-Pampa sanctuary existed well before the Vijayanagara capital was located here. Inscriptions referring to Shiva date back to the 9th and 10th centuries. What started as a small shrine grew into a large complex under the Vijayanagara rulers. Evidence indicates there were additions made to the temple in the late Chalukyan and Hoysala periods, though most of the temple buildings are attributed to the Vijayanagara period. The huge temple building was built by Lakkana Dandasha, a chieftain under the ruler Deva Raya II of the Vijayanagara Empire.

Ceiling Paintings in the Virupaksha date to fourteenth and sixteenth century. The religious sect of Virupaksha-Pampa did not end with the destruction of the city in 1565. Worship there has persisted throughout the years. At the beginning of the 19th century there were major renovations and additions, which included restoring some of the broken towers of the north and east gopura. This temple is the only well preserved and maintained temple in Hampi until date; the other numerous temples in Hampi were destroyed and ruined by the Bahmani sultanates.

Vittala Temple

The renowned Vittala Temple dates back to the 15th century. It was built during the reign of King Devaraya II (1422 – 1446 A.D.), one of the rulers of the Vijayanagara Empire. Several portions of the temple were expanded and enhanced during the reign of Krishnadevaraya (1509 – 1529 A.D.), the most famous ruler of the Vijayanagara dynasty. He played a significant role in giving the monument its present look.

The Vittala Temple is also known as Shri Vijaya Vitthala Temple. It is dedicated to Lord Vitthala, an incarnation of Lord Vishnu. An idol of Vitthala-Vishnu was enshrined in the temple. Legend has it that the temple was built as an abode for Lord Vishnu in his Vitthala form. However, the Lord had found the temple to be too grand for his use and had returned to live in his own humble home.

Architecture of Vittala Temple

The Vittala Temple is presumed to be the grandest of all temples and monuments in Hampi. The temple exemplifies the immense creativity and architectural excellence possessed by the sculptors and artisans of the Vijayanagara era. The Vittala temple is built in the Dravidian style of architecture. It has traits and features that are characteristic of typical south Indian temple architecture. It's elaborate and artistic carvings and magnificent architecture is unmatched by any other structure found in Hampi. It is believed that the main shrine of the temple originally had one enclosed Mantapa. An open Mantapa was added to it in the year 1554 A.D. The temple complex is a sprawling area that is surrounded by high compound walls and three towering gateways. The temple complex has many halls, shrines and pavilions located inside it. Each of these structures is made of stone and each structure is a beauty in itself. Notable among these structures are the shrine of the Goddess (also known as Devi shrine), Maha Mantapa or main hall (also known as Sabha Mantapa or congregation hall), Ranga Mantapa, Kalyana Mantapa (marriage hall), Utsava Mantapa (festival hall), and the famous Stone Chariot.

Achyuta Raya Temple

The Achyuta Raya temple got built during the rule of Achyuta Deva Raya, who was one of the emperors of the Vijayanagara Empire. He came to power by succeeding his elder brother Krishna Deva Raya in the year 1529. The stunning and heavenly temple is devoted to Lord Tiruvengalanatha; he is a configuration of Lord Vishnu. Thus, this temple was initially known as Tiruvengalanatha Temple. However, later on, it came to be called after the king in whose reign it was built. Hence, it became widely known as the Achyuta Raya temple.

Temple Architecture
 The principal shrine of the temple is located in the centre of a pair of rectangular enclosures. There are pillared walkways on the interior flanks of the two enclosures. The outer walkways are in a state of disrepair, collapse, and disintegration. The temple is distinctly visible from the top of the Matanga hill. At the end of the abandoned Courtesan Street. On entering the inner court one can spot a shrine that is facing the porch leading to the main hall. There is a small shrine chamber which once sanctified an image of Garuda. The main hall has few extremely lauded sculpted images in Hampi. The carvings are done on monolithic blocks of rocks. The statues and sculptures on the pillars reveal themes like lord Krishna blessing an elephant, lord Krishna playing his flute while the calves are watching the scene with interest and infant Krishna dancing with a snake and holding it by the tail. There is a Mandapa which is a marriage hall of the Gods and the Goddesses for the yearly festivals.

Lakshmi Narshima Temple

This is the largest statue in Hampi, the Lakshmi Narasimha statue has Narasimha (an incarnation of Lord Vishnu), sitting on the coil of a huge seven-headed snake, called Adishesha. The heads cover the statue in the form of a hood. The Lord is in cross-legged Yoga position with a belt supporting his knees. The specialty of this imposing sculptures in the ruined town of Hampi is that it is the largest monolith statue here. One of the most important attractions in Hampi, this statue is the rich heritage of the Vijayanagara Empire. Hindu mythology states that Narasimha is the 4th incarnation of Lord Vishnu. He appeared on earth as half human (Nara) and half lion (Simha). While the lower body was of a human, the upper part was like a lion. Placed in the Lakshmi Narasimha temple, this gigantic statue similarly has the face of a fierce lion and the body of a human being.

As far as the angry look on the face of the statue is concerned, there are two theories. One of them suggests that this is an image of Ugra Narasimha or fierce Narasimha and thus it has scary facial expressions with protruding eyes. Moreover, the absence of Goddess Lakshmi along with the Lord, increases the relevance of this theory. According to the second theory, this sculpture is a representation of Malola Narasimha form where his consort, Goddess Lakshmi is seen sitting on his lap but is not visible as the statue is now damaged. The

word Malola is a combination of 2 words Ma (Goddess Lakshmi) and Lala (beloved).

The statue lies in the Lakshmi Narasimha temple that was constructed in the year 1528, during the reign of Krishnadevaraya, one of the rulers of Vijayanagara Empire. Lord Narasimha and his consort, Goddess Lakshmi are the residing deities of this temple. Originally, the statue also had a small statues of the Goddess, sitting on his lap. But during the raid by the Mughals in 1565, the statue was highly damaged and disfigured. At the time of the attack the limbs of the statue were also broken and the statue of the Goddess was separated from the main sculpture. Also, one hand of the Goddess' statue was also broken and this hand can be seen today at the back of the statue of the Lord. This damaged statue of the Goddess today is kept at the Archaeological Museum in Kamalapur. An architectural masterpiece, the Lakshmi Narasimha statue is 6.7 meters in height and has been rafted with amazing details. It is one of the best works that were done in the Vijayanagara style of architecture. The status lies between an arch or Makara torana.

The statue of Lord Narasimha has a clearly-designed mane and wonderfully-shaped broad chest. A well-designed headgear adorns the statue that is seated in cross-legged position. The statue is seated on the coils of seven-hooded holy snake, Adishesha, who is known to be the King of snakes. The hoods of the snake make a canopy on the head of the Lord. On the hood of the snake, a lion mask has been placed. The protruding and angry eyes of the statue are its important feature and the statue an imposing aura. This huge statue has been carved one single boulder of granite stone and a wonderful piece of craftsmanship.

Conclusion: - Hampi is the capital of the Vijayanagar Empire, in Karnataka state. It was a powerful Hindu empire in South India from 1336 to 1565 AD. The golden period of this empire was from 1503 to 1530 AD when King Krishna devaraya was emperor. According to the Portuguese traveler Domingo Payas, "It was known as the best rich city in the world with all the comforts, up to Iraq and Iran." In 1565 AD, vijayanagar a fierce battle between the Bahamani kingdom and the Vijayanagar Empire at Talikot (Rakshastagadi) was defeated. It was built under the rule of Krishnadevaraya, one of the greatest rulers of the Vijayanagara Empire. The original sculpture had a small figure sitting on the lap of Narasimha's wife Lakshmi Devi. In 1565, when the Vijayanagara Empire was destroyed in a raid

by the Bahamanis, this huge statue was damaged and desecrated. The arms and legs of Narasimha's statue were broken in the attack. The statue of Lakshmi separated from Narasimha. The damaged statue of Lakshmi is now in the Archaeological Museum at Kamalapur.

Overall, Listed under the UNESCO World Heritage Site as the Group of monuments at **Hampi**, this city was also at one point one of the richest cities in the world when it was at its peak. Located inside the Vijayanagara city, Hampi has been one of the most significant tourist places of attraction. People from all over the country visit Hampi for its beautiful monuments and history.

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Published By :

Royal Book Publishing

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2024
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Publishing in Feb/March -2024

Chapter -15

Biological Significance of Five and Six membered Heterocyclic Compounds

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Abstract:

Heterocyclic compounds are of huge importance biologically and industrially and the largest of classical division of organic chemistry is formed by heterocycles. Today there are a number of heterocyclic compounds are known, day by day the number is increasing fast due to the enormous synthetic research and also their synthetic utility. Most fields of sciences such as medicinal chemistry, biochemistry also another area of sciences important role of Heterocyclic compounds. In this chapter, recently synthesized heterocyclic compounds shows enormous biological activity such as antifungal, anti-inflammatory, antibacterial, antioxidants, anticonvulsant, antiallergic, herbicidal and anticancer.

Keywords: Heterocyclic compound, Biological active, Five & Six Membered Heterocycles etc.

Introduction

Heterocyclic compounds are of huge importance biologically and industrially and the largest of classical division of organic chemistry is formed by heterocycles. More than a century, the largest area is being occupied by heterocyclic compounds in the area of research. Organic chemists weekly synthesize hundreds of new heterocyclic compounds. In most cases specific reason for the synthesizing of particular heterocyclic compounds generally, based on the theoretical consideration, pharmaceutical chemistry and biological mechanism or all of three combinations.

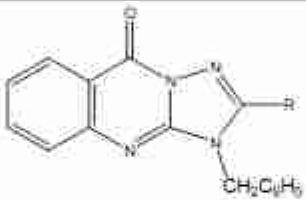
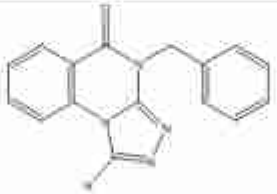
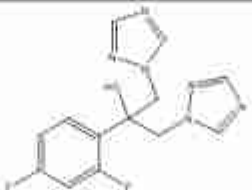
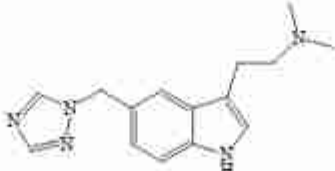
Cyclic compounds containing one or additional hetero atoms in the ring are called heterocyclic compounds. Most of the heterocycles are individually having five or six membered rings and containing nitrogen (N), Sulphur (S) and oxygen (O) are common heteroatoms but heterocyclic rings containing other heteroatoms are also generally known. Heterocyclic chemistry is the branch of pure organic chemistry that involves synthesis and evaluation of properties and applications of these heterocycles. It has become an important branch of organic chemistry and contributes medicinal chemistry to a greater extent. Nitrogen heterocycles are naturally abundant than those of Sulphur or oxygen heterocycles [1] and which are widely distributed in nucleic acids, involvement in approximately every physiological process of plants and animals.

Organic researchers more attentions to the synthesis of heterocyclic compounds over the years due to their therapeutic values.[2] Nitrogen, oxygen and sulfur heteroatom containing poly-functionalized aliphatic or aromatic heterocyclic compounds proven as significant in the process of drug discovery.[3] Drugs analyses in the market shows that more than sixty percent are heterocycles.[4] Hence, it is clear that the past decades due to chemotherapeutic value of heterocyclic nuclei containing compounds gain much importance in the development of novel biologically active scaffolds, such as anti-malarial, analgesic, local anesthetic, antioxidant, antimicrobial, anti-diabetic, anti-tubercular, anti-helminthic, anti-inflammatory, anti-epileptic, anti-anxiety, antiviral, antihistaminic, anti-neoplastic, antidepressant, antihypertensive, and anti-Parkinson's agents, etc.[5-6] The heterocyclic compounds are generally distributed in environment and are extremely essential for the living organisms; they play a fundamental role in metabolism of all living cells, such as the pyrimidine and purine bases of the genetic material DNA, the essential amino acids, proline, tryptophan and histidine, the coenzymes, vitamins, the photosynthesizing pigment chlorophyll, and the oxygen transporting pigment haemoglobin etc. A vast number of synthetic and naturally occurring heterocyclic compounds found their use in medicines, agrochemical, and polymers etc.

Cimetidine, chlorpromazine, metronidazole, diazepam, famotidine, azidothymidine, barbiturates, methotrexate, antipyrine, and captopril are synthetic drugs which are heterocyclics. H₁ receptor blockers such as Cetirizine [7] and Chlorpheniramine, antiretroviral drugs such as Zidovudine/azidothymidine (AZT) reverse transcriptase inhibitor [8-10](also called ZDV), Acyclovir (ACV), anticancer drugs Cladribine (Leustatin) [11] and Pentostatin [12] are heterocyclics. Many antibiotics including penicillin, cephalosporin, norfloxacin, and beta-lactamase inhibitors Clavulanic acid and Sulbactam contain heterocyclic rings.

Biological Significance

Table 1. Biologically Active 1,2,4-Triazole Derivatives

Compound	Structure	Biological Activity [Ref]
3-benzyl-2-substituted-3H-[1,2,4] triazolo[5,1-b]quinazolin-9-ones		Antihypertensive activity [13]
4-benzyl-1-substituted-4H-[1,2,4] triazolo[4,3-a]quinazolin-5-ones		Antihistaminic agents [14]
Fluconazole		Antifungal Agent [15]
Rizatriptan		Treatment of migraine headaches [16-17]

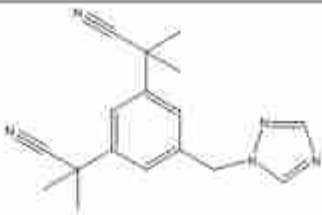

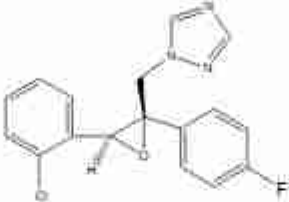
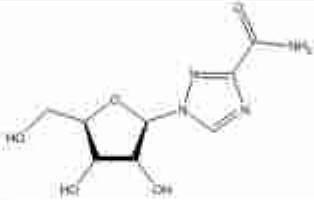
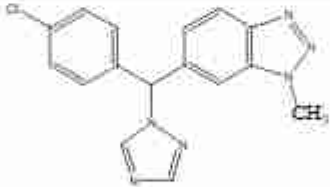
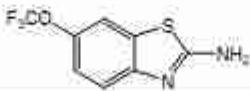
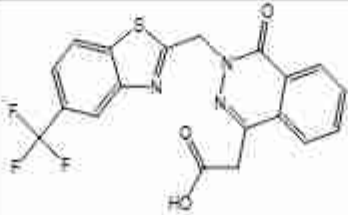
Anastrozole		Treatments for breast cancer [18]
Loreclezole		Anticonvulsant activity [19]
Epoxiconazole		Fungicide active ingredient [20]
Ribavirin (1-β-D-Ribofuranosyl-1,2,4-triazole-3-carboxamide)		Antiviral activity [21-22]
Vorozole		Antineoplastic agent [23]

Table 2. Biologically active benzothiazoles derivatives

Compound	Structure	Biological activity [Ref]
Riluzole		Anticonvulsant [24]
Zopolrestat		Aldose Reductase Inhibitor [25]

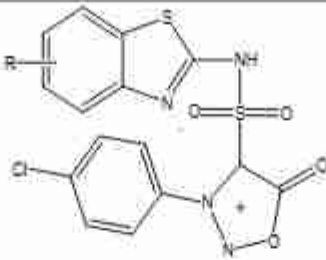
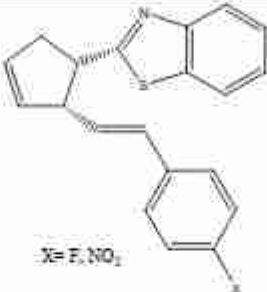
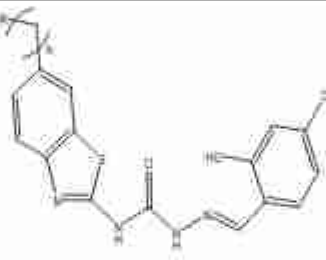
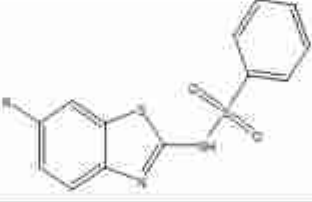
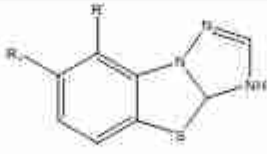
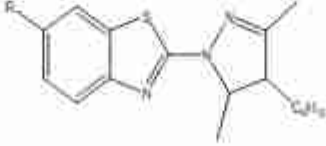
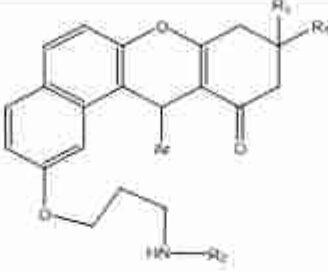
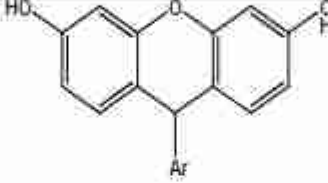
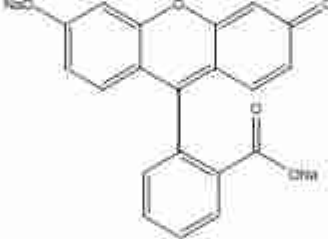
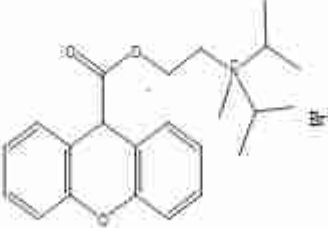
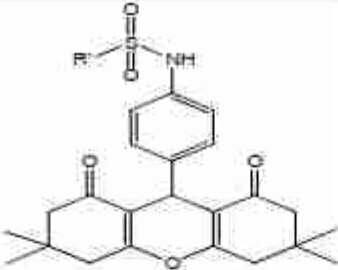
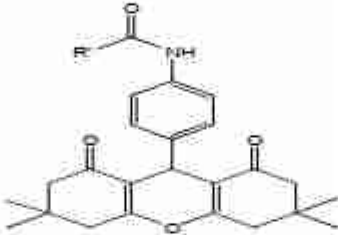

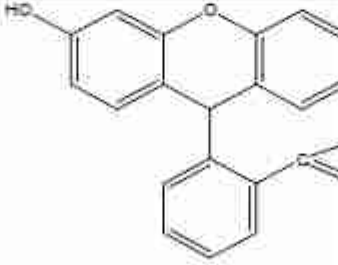
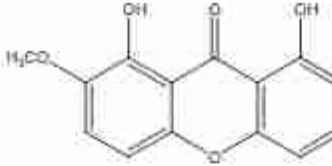
<p>4-[(Substituted-1,3-benzothiazol-2-yl)sulfamoyl]-3-(4-chlorophenyl)sydnonones</p>		<p>Antimicrobial [26]</p>
<p>2-Substituted benzothiazole derivatives</p>	 <p>X= F, NO₂</p>	<p>Anticancer and Antioxidant [27]</p>
<p>Benzothiazole and <i>ortho</i>-hydroxycarbamoylhydrazone moieties</p>		<p>Antitumor Agents [28]</p>
<p>2-(substitutedarylsulfonamido)-6-substituted</p>		<p>Anti-bacterial activity [29]</p>
<p>8-fluoro-9-substituted benzothiazolo 1,3,4-triazoles</p>	 <p>R= Antifine, Nitro aniline R₁= F, Br</p>	<p>Anthelmintic activity [30]</p>
<p>2-(4'-butyl-3',5'-dimethylpyrazol-1'-yl)-6-substituted benzothiazoles</p>		<p>Anti-inflammatory activity [31]</p>

Table 3 Biologically active xanthenes derivatives

Compound	Structure	Biological activity [Ref]
2-(3-aryl/alkylaminopropoxy)-12-arylxanthene derivatives		Antibacterial and Antifungal activity [32]
9-aryl-9H-xanthene-3,6-diol derivatives		Anti-inflammatory and analgesic agents [33]
Fluorescein		Fluorescein angiography or angioscopy of the retina and iris vasculature
Propantheline bromide		Anti-muscarinic agent [34]

<p>Xanthene sulfonamide and carboxamide derivatives</p>	 <p>Xanthene sulfonamide</p>  <p>Xanthene carboxamide</p>	<p>Antimicrobial activity [35]</p>
<p>2,2,5,5-Tetramethyl-9-aryl-3,4,5,6,7,9-hexahydro-1H-xanthene-1,8(2H)-dione Derivatives</p>		<p>Antioxidant, Antimicrobial and Anti-proliferative Activity [36]</p>
<p>2-(3,6-dihydroxy-9H-xanthen-9-yl) benzamide</p>		<p>Anti-cancer activity [37]</p>

1,8-dihydroxy 3,7-dimethoxy-xanthene-9-one		Anti-malarial Activity
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Conclusion

Heterocyclic compounds one of the important types of organic compounds, which is taking a wide range in the medicinal chemistry this due to the enormous number of heterocyclic compounds that used in medicine as drugs for varied diseases. The drugs which contain the core of heterocyclic its skeletons such as Antifungal activity, anti-inflammation, anti-bacterial, antioxidants, anticonvulsant, antiallergic, herbicidal activity and anticancer, etc.

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Chapter -31

Synthesis, Characterization and Antimicrobial activity of metal complexes novel 1,3-diones

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Abstract:-

The synthesized 1,3-dione have many uses such as important intermediates for the synthesis of core heterocycles compounds such as pyrazole, isoxazole, and triazole in medicinal chemistry. Each metal complexes synthesized by metal nitrate with 1, 3 dione (L) in the ratio 1:2 stoichiometry. The characterization was carried out by elemental analysis, UV-Visible spectroscopy, infrared spectroscopy, $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, magnetic susceptibility, molar conductance and TGA for structural formulae study. The synthesized 1, 3-dione and their transition metal complexes have been screened for in vitro antibacterial, and antifungal activity using Resazurin 96 well plate method. It achieves more accurate minimum inhibitory concentration (MIC).

Keywords:-1, 3-dione, Metal-complexes, Magnetic susceptibility, TGA, Antimicrobial activity

Introduction:-

1,3-diketones are used in synthesis of various heterocycle compounds such as pyrazol [1], isoxazole [2], triazole [3], flavones [4], benzodiazepine [5] and pyrimidine [6]. The complexes of Europium (III) have excellent luminescent property, [7] as chelating agent and extractants for lanthanide ions.[8-9]The 1,3-diones are very important molecules showing anti-sunscreen activity, antibacterial, antiviral, insecticidal, antioxidant, potential prophylactic antitumor and more important they proven to be an important pharmacophore of HIV-1 Integrase (IN) inhibitors. A characteristic of metals is that they easily lose electrons from metal to form positively charged ions, which tend to be soluble in biological fluids.

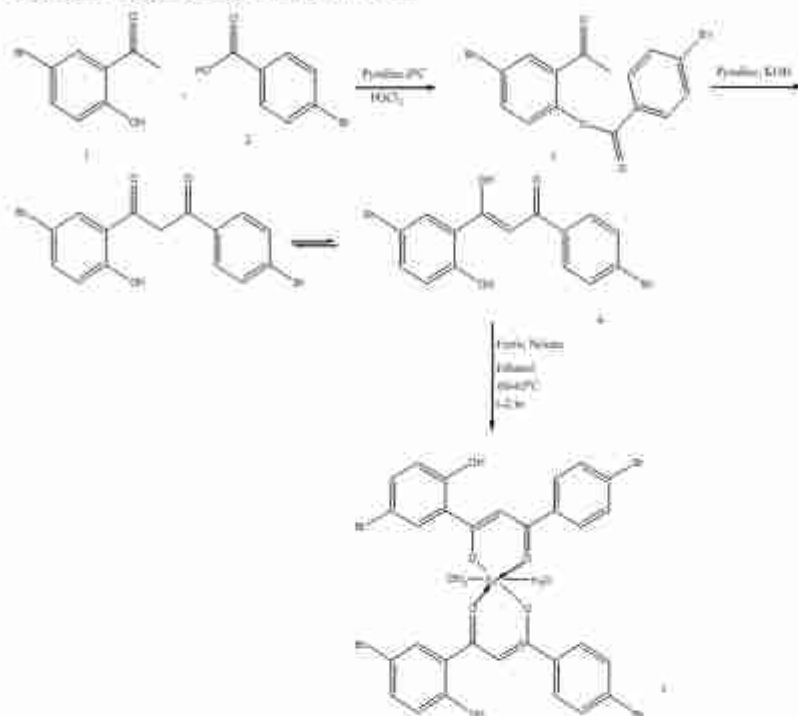
The metal ions are electron deficient, most biological molecules such as proteins and DNA are electron rich. The attraction of these opposite charges leads to a general tendency for metal ions to interact with biological molecules. In hemoglobin, an iron ion's strong affinity to bind with oxygen in the respiration process. Zn ions provide the structural framework for the zinc fingers that regulate the function of genes in the nuclei of cells also zinc is a natural component of insulin, to regulate sugar metabolism. Metals such as copper, zinc, iron, and manganese are important in catalytic proteins which initiate chemical reactions needed for life.

General Scheme Synthesis of 1,3-diones and its metal complexes:-

The compound substituted benzoic acid (0.01 mol) and substituted 2-hydroxy acetophenone (0.01 mol) was dissolved in 20 ml dry pyridine cool the mixture below 5°C add phosphorous oxychloride (1-2 ml) drop wise and continuously stirrer for 5-6 hrs form ester. Then using Baker Venkataraman rearrangement, ester dissolve in pyridine and add powdered KOH and stirrer for about 2-3 hrs. Then it was poured over crushed ice and acidified with dil. HCl. The resulting solid was crystallized from ethanol. The yield of 1,3-diones is 65-70%.

Synthesis of metal complexes of 1,3 dione:-

A Mixture of 1,3 dione (L) (5 mmol) and 2.5 mmol of appropriate metal nitrate added in anhydrous 30 ml ethanol and the resulting mixture was refluxed at 60-65°C for 2-3 hour whereupon the complex precipitation occurs after the addition of alcoholic ammonia. The precipitated colored solid complex washed with ethanol and crystallized by using dichloromethane. The yield of complexes near about 62- 72%.

General scheme of reaction**A) IR Spectra:-**

The characteristic infrared spectral data of 1,3-dione (L) and their metal complexes are reported. The carbonyl group ($>\text{C}=\text{O}$) stretching frequency of ligand (L) appearance at $1600\text{-}1620\text{ cm}^{-1}$. The appearance of frequency at $1575\text{-}1593\text{ cm}^{-1}$ due to ($-\text{C}=\text{C}-$) double bond and the bond ($\text{C}-\text{O}$) appear at $1200\text{-}1225\text{ cm}^{-1}$. The metal complexes of ligand (L) show IR frequency of carbonyl group ($>\text{C}=\text{O}$) at $1591\text{-}1610\text{ cm}^{-1}$ which were lower than IR frequency of 1,3-dione (L). This lowering stretching frequency indicates that ligands coordinated with the transition metal ions. In addition, new band at $509\text{-}534\text{ cm}^{-1}$ observed due to metal-oxygen ($\text{M}-\text{O}$) bond vibrations in metal complexes which were absent in ligands. This confirms of metal ions coordinate with ligand via oxygen.

B) ^1H NMR and ^{13}C NMR Spectra:-

The ^1H NMR spectral data of the 1,3-dione (L) shows singlet at δ 15.00 ppm due to enolic proton, a singlet at δ 11.94-12.00 ppm due to

phenolic proton adjacent to the carbonyl group which confirms the formation of 1,3-dione.

In the ^{13}C NMR of 1,3-diones (L) peak appeared at δ 190.0 - 194.86 ppm corresponds to carbonyl carbon (C=O) and enolic carbon (C-O) at δ 178.47-179 ppm. The signal at δ 98.10 ppm appeared shows methine linkage.

C) Magnetic Susceptibility and Molar Conductance:-

The molar conductance values were obtained in $\Omega^{-1}\text{cm}^2\text{mol}^{-1}$ at room temperature using DMSO as a solvent and results are recorded. The molar conductance values were obtained in the range 13-20 $\Omega^{-1}\text{cm}^2\text{mol}^{-1}$. The conductance values show metal complexes non-electrolytic in nature.[10] All metal complexes were paramagnetic in nature except Zinc complexes were diamagnetic due to non-availability of unpaired electrons

D) UV-Visible Spectroscopy:-

The electronic spectra of the 1,3 dione exhibited bands in the regions of 259.5 and 361.5 nm, which can be assigned to intramolecular $\pi \rightarrow \pi^*$ and $n \rightarrow \pi^*$ electronic transitions due to the aromatic and carbonyl groups. In all metal complexes intramolecular $\pi \rightarrow \pi^*$ and $n \rightarrow \pi^*$ electronic transitions occur but weak d-d transition not found. All metal complexes have center of symmetry the 3d orbital cannot mix with the 3p orbital in such mixing being symmetry forbidden. The octahedral complexes with center of symmetry so $T_{2g}-E_g$ transitions were very weak not observed.

E) Thermo Gravimetric Study of Some Metal Complexes:-

The TG/DT analysis of some metal complexes, the temperature range usually selected 25°C to 600°C at the rate 10°C/Min in Nitrogen atmosphere using $\alpha\text{-Al}_2\text{O}_3$ as reference. The thermogram curve of L-Fe Complex shows weight loss 6.018% up to 225°C clearly indicate removal of surface two coordinated water molecules.[11-12] A sudden weight loss (48.05%) from 225°C to 475°C was due to loss of one phenyl ring with two hydroxy and one carbonyl group. Further, the weight loss (29 %) from 475°C to 566°C corresponds to the

decomposition of two phenyl ring and a propane-1, 3-dione moiety. On further heating above 566°C the weight remained constant corresponding the formation of Ferrous oxide. In DTA graph small endothermic peak observed at 123°C which indicates dehydration process and strong exothermic at 501°C indicates thermal decomposition of L-Fe Complex.

F) Antimicrobial Activities:-

The antimicrobial activity carried out by Resazurin method which is developed by Drummond and Waigh in 2000.[13] This method is simple, sensitive, rapid, and reliable and achieves more accurate minimum inhibitory concentration (MIC). In this method Resazurin used as an indicator and it was prepared by dissolving 270 mg tablet in 40 ml of sterile distilled water. The color changes from purple to pink or colorless were recorded as positive. MIC values taken as color change occur at lowest concentration. The average of three values of MIC for the test material and bacterial strain has been considered.

MIC ($\mu\text{g/ml}$) values of 1-(5-bromo-2-hydroxyphenyl)-3-(4-bromophenyl)-propane-1,3-dione (L) and its metal complexes using modified Resazurin assay method.

Compounds	Antibacterial activity				Antifungal activity	
	Gram positive		Gram negative		Calbicans	S.cerevisiae
	B.subtilus	S.aureus	E.coli	P.aerugenosa		
L	<50	<50	100	50	150	150
L-Fe	100	<50	100	100	150	100
L-Co	100	<50	50	50	150	100
L-Ni	50	<50	100	50	150	100
L-Cu	50	<50	100	50	100	50
L-Zn	100	<50	100	100	100	50
Tetracycline	2	1	4	1	-	-
Amphotericin B	-	-	-	-	1.25	1.25

Conclusions:-

The above chapter present research work shows 1,3-dione and its transition metal complexes reveals that 2:1 stoichiometry ratio for all the prepared metal complexes. These complexes were characterized by various physicochemical and spectral analyses. It shows non-electrolytic nature and octahedral geometry with center of symmetry. The thermal stability was evaluated by TG method whose results revealed good thermal stability for the synthesized metal complexes. As per results, it can be seen that the 1,3-dione and its metal complexes shows considerable antimicrobial activity against all tested bacteria and fungi compared with antibiotics Tetracycline and Amphotericin B.

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An International Edited Book

ISBN: 978-81-959483-8-3

Environment and Society 2023



Editors

Dr. V. K. Chaudhary
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Published By



Nature Light Publications, Pune



GSSA, New Delhi

An International Edited Book

ISBN-978-81-959483-8-3

ENVIRONMENT AND SOCIETY 2023

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Nature Light Publications, Pune



*Global Environment and Social
Association (GESA), New Delhi, India*



Environment and Society 2023

ISBN: 978-81-959483-8-3 | Year: 2024 | pp: 10 - 13 |

Biofuels for Sustainable Development

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Background

In recent years, the world has increasingly turned its attention to finding sustainable alternatives to traditional fossil fuels. As the effects of climate change become more pronounced and the demand for energy continues to rise, the need for renewable and low-carbon energy sources has become paramount. One such alternative is biofuel, which is derived from organic matter such as plants and animal waste. Biofuels have the potential to significantly reduce greenhouse gas emissions and lessen the world's dependency on non-renewable energy sources. This chapter aims to provide an overview of biofuels, their potential for sustainable development, and the challenges and opportunities associated with their use.

Objectives:

- To provide a comprehensive understanding of biofuels and their different types.
- To explore the potential of biofuels in promoting sustainable development.
- To analyze the challenges and opportunities associated with the production and utilization of biofuels.
- To outline the importance of biofuels in the context of global energy transition and climate change mitigation.
- To present case studies and examples of successful biofuel initiatives around the world.

Scope:

This chapter will cover the following topics:

➤ Types of biofuels:

This section will discuss first-generation biofuels (e.g., ethanol and biodiesel) and second-generation biofuels (e.g., cellulosic ethanol and algae-based biofuels).

➤ Environmental and social benefits of biofuels:

This section will explore the potential of biofuels in reducing greenhouse gas emissions, promoting rural development, and enhancing energy security.

➤ Challenges and opportunities:

This section will address the technological, economic, and policy challenges associated with biofuel production and utilization, as well as the opportunities for innovation and market growth.

➤ **Case studies:**

This section will showcase successful biofuel initiatives from different regions, highlighting the lessons learned and the potential for scalability and replication.

Importance of Biofuels for Sustainable Development:

At their core, biofuels offer a sustainable and renewable alternative to fossil fuels. By utilizing organic materials such as crops, agricultural residues, and waste products, biofuels can significantly reduce the carbon footprint of the transportation sector, which is a major contributor to global greenhouse gas emissions. In addition to environmental benefits, biofuels can also create new economic opportunities, especially in rural and agricultural regions, and contribute to energy security by diversifying fuel sources.

Biofuels play a crucial role in the transition towards a low-carbon economy, aligning with the goals of the Paris Agreement and the United Nations Sustainable Development Goals (SDGs). As countries strive to meet their emission reduction targets and promote energy access and economic development, biofuels have emerged as a viable and important component of the renewable energy mix. The sustainable development is utmost necessity for better environment (Ashok, 2019), however, anthropogenic activities, pollution etc badly affect it (Verma and Prakash, 2020; Kumar, 2021; Prakash and Verma, 2022; Singh et al., 2023).

Overview of Biofuel Types:

➤ **First-Generation Biofuels:**

First-generation biofuels are derived from food crops such as corn, sugarcane, soybeans, and oil palm. Common

examples include ethanol and biodiesel. Ethanol is produced through the fermentation of sugar or starch, while biodiesel is typically obtained from oilseeds. These biofuels have been widely used and are well-established in many countries. However, concerns have been raised about their impact on food prices, land use, and competition with food production.

➤ **Second-Generation Biofuels:**

Second-generation biofuels are produced from non-food sources such as agricultural residues, woody biomass, and algae. Cellulosic ethanol, for instance, is derived from the cellulose and hemicellulose in plant materials, and is considered more sustainable than first-generation biofuels due to its use of non-food feedstocks. Algae-based biofuels have also gained attention for their high productivity and potential to be grown in non-arable land, reducing competition with food production.

Environmental and Social Benefits of Biofuels:

Biofuels offer several environmental and social benefits, including:

Reduction of greenhouse gas emissions: Biofuels have the potential to significantly reduce carbon dioxide emissions compared to traditional fossil fuels, contributing to climate change mitigation.

Rural development: The production of biofuels can create new economic opportunities in rural areas, providing income for farmers and promoting agricultural diversification.

Energy security: By diversifying fuel sources and reducing dependency on imported oil, biofuels can enhance energy security and resilience.

Challenges and Opportunities:**➤ Technological Challenges:**

The production of biofuels poses several technological challenges, including the development of efficient conversion processes, improvement of feedstock sustainability, and reduction of production costs. Research and innovation in biofuel technologies are essential for overcoming these challenges and maximizing the potential of biofuels for sustainable development.

➤ Economic and Policy Challenges:

The economic viability of biofuel production is influenced by various factors, including feedstock availability, market demand, and government policies and incentives. Policy frameworks that support sustainable biofuel production and consumption, such as renewable fuel standards and carbon pricing, are crucial for creating a conducive environment for biofuel development.

➤ Opportunities for Innovation:

Despite the challenges, biofuels present opportunities for innovation and market growth. Advanced biofuel technologies, such as bio-refineries and integrated biorefinery concepts, hold promise for improving the efficiency and sustainability of biofuel production. Additionally, the emergence of bio-based aviation and marine fuels presents new opportunities for the expansion of biofuel markets.

Case Studies:**➤ Brazil's Ethanol Program:**

Brazil has been a pioneer in the development and commercialization of ethanol as a biofuel. The country's sugarcane-based ethanol program has demonstrated the potential for biofuels to reduce reliance on fossil fuels, promote energy security, and contribute to rural

development. Brazil's experience serves as a valuable case study for other countries seeking to implement successful biofuel initiatives.

➤ United States' Cellulosic Ethanol Production:

The United States has made significant investments in the development of cellulosic ethanol technologies, aiming to scale up the production of advanced biofuels from non-food sources. Despite early challenges, ongoing research and demonstration projects have shown progress in overcoming technical and economic barriers, illustrating the potential for second-generation biofuels to contribute to sustainable development.

Conclusion:

Biofuels have emerged as a key component of the global effort to transition towards a more sustainable and low-carbon energy system. Their potential to reduce greenhouse gas emissions, promote rural development, and enhance energy security makes them an important asset in the pursuit of sustainable development. However, the successful deployment of biofuels requires addressing technological, economic, and policy challenges, while seizing opportunities for innovation and market growth. Thus, this article concludes that the specific aspects of biofuel production, utilization, and sustainability, providing insights and practical recommendations for realizing the full potential of biofuels in the context of sustainable development.

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Organised by

Department of Zoology

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Editor:

Dr. Ravindra Pathre

Head, Dept. of Zoology,
MSS's Arts, Science & Commerce College,
Ambad, Dist. Jalna (MS)

ISBN: 978-93-92310-66-9

Published By:

Ramanshil Publication,
Chhatrapati Sambhajinagar (MS)

Composed and Setting by:

Dr. Tukaram Gajar

Department of Geography,
MSS's Ankushrao Tope College
Jalna, Maharashtra, India

Mr. Sachin Jadhav & Mr. Yogesh Kayande

Department of Zoology, MSS's Arts, Science and
Commerce College Ambad, Jalna (M.S)

Publication Month & Year:

January 2024

Price: INR 490

Disclaimer

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Insects: Key Players in Sustainable Development and Biodiversity Conservation

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Abstract:

The most acquiring species on earth are Insects and are usually overlooked when considering the crucial roles, they play in sustainable development and biodiversity conservation. Recent evidences suggested that insect populations may be declining at local and global level, threatening the sustainability of the ecosystem which provided by insects. The conservation of insect diversity is therefore a topic of global importance. This paper presents an overview of the importance of insects in these domains and the pressing need to protect them. The methods of this research involve a comprehensive review of existing literature and case studies that demonstrate the significant contributions of insects to sustainable development and biodiversity conservation. The results highlight the multifaceted roles of insects in pollination, pest control, waste decomposition, and their impact on ecosystem functioning. The discussion delves into the threats faced by insect populations and the measures required to preserve their diversity and abundance. Finally, the paper concludes with a call to action to recognize the pivotal role of insects in sustaining ecosystems and promoting biodiversity conservation.

Key words: Insect, sustainable development, biodiversity

Introduction:

Insects are the most abundant animals in the world, with all species accounting for more than 70% of the global animal population. Throughout human existence, insects have initially been viewed as "enemies." According to reports, insect pests cause 25–80% of agricultural losses worldwide; the amount of food they eat would be enough to feed over a billion people (Birch et al., 2011). Insects have been and still remain to be important causes of socioeconomic stressors like starvation and health crises, which makes them barriers to reducing poverty. But insects and other invertebrates also play an important role in ecological webs, offering essential ecosystem services like carbon sequestration in soils, organic matter recycling, pollination and seed dissemination in food systems, and water filtration (Schowalter, 2013). They are responsible for a wide range of functional roles within the ecosystem, contributing to the ecosystem service framework (Metcalfe et al. 2014; Noriega et al. 2018; Ollerton 2021; Seibold et al. 2021). From pollination and pest control to waste decomposition and nutrient recycling, insects play critical roles in maintaining ecosystem processes and services. In addition, insects provide a variety of unconventional ecosystem services (Morimoto 2020), including plastic degradation (Bombelli et al. 2017) and many contributions to human culture and tourism. (Duffus et al. 2021 and Jacinto Padilla et al. 2021).

The outline of insects and their colorful body patterns have initiated prominent contributions to our art, literature and culture and offer great educational tools (Pyle et al., 1981). In many regions, insects are also an important part of the human

diet. Some insects have great value in Chinese medicine. Insects form an essential part of the Earth's ecosystems, receiving relatively little attention compared to larger organisms, yet their contributions are far-reaching and fundamental for sustainable development and biodiversity conservation.

The global ecological and socioeconomic impacts of insects and other arthropods are very important for several sustainability goals. Despite their importance, insect populations are under pressure due to habitat loss, climate change, pollution and pesticide use, resulting in reduced abundance and diversity. This paper aims to underscore the significance of insects in sustainable development and biodiversity conservation and advocate for their protection and preservation.

Methods:

This research involves a comprehensive review of existing literature, including scientific studies, reports, and case studies that illustrate the roles of insects in sustainable development and biodiversity conservation. The review encompasses research on insect pollinators, pest control, decomposition, and their broader impact on ecosystem functioning. Case studies from various regions are also examined to present specific examples of the contributions of insects to sustainable development and biodiversity conservation.

Results:

Insects, particularly pollinators such as bees, butterflies, and other species, are crucial for the reproduction of numerous plant species, including many of the crops on which human populations depend. The economic value of insect pollination services is immense, contributing significantly to agricultural productivity and food security. In addition to pollination, insects provide natural pest control by preying on pest insect species, which reduces the reliance on chemical pesticides and associated environmental impacts. Furthermore, insects are integral to the process of decomposition, breaking down organic matter and facilitating nutrient recycling in ecosystems.

The decline of insect populations poses a significant threat to ecosystem functioning and biodiversity. Loss of insect diversity can lead to imbalances in food webs, reduced pollination services, disruptions in nutrient cycling, and impacts on ecosystem stability.

The Role of Insects in Agriculture: Insects provide indispensable services to agriculture through pollination and pest control. Pollinators, including bees, butterflies, and other insects, facilitate the reproduction of many flowering plants, thereby supporting crop production and enhancing the genetic diversity of plant populations. Moreover, insects such as ladybird beetles, parasitic wasps, and predatory bugs act as natural enemies of pests, contributing to the reduction of crop damage without the need for chemical pesticides. The reliance on insect pollinators and natural pest control services underscores the critical role of insects in ensuring food security and sustainable agricultural practices.

Insects and Ecosystem Services: Insects contribute significantly to the provision of ecosystem services, including nutrient cycling, soil aeration, and decomposition of organic matter. From dung beetles processing animal waste to termites breaking down cellulose in decaying wood, insects play a crucial role in maintaining ecological balance and healthy ecosystems. They facilitate the recycling of nutrients and the decomposition of organic matter, which are essential processes

for the productivity and sustainability of natural ecosystems. Additionally, insects are pivotal in supporting diverse food webs and providing sustenance for many other species, making them integral to the overall functioning of ecosystems.

Challenges and Opportunities in Harnessing the Potential of Insects for Sustainable Development: While insects offer numerous opportunities for sustainable development, they also present challenges that need to be addressed. One such challenge is the impact of habitat loss, pollution, and climate change on insect populations, leading to declines in their diversity and abundance. These factors contribute to the disruption of essential ecological processes and the loss of valuable ecosystem services provided by insects. However, there are also opportunities to harness the potential of insects through sustainable agriculture practices, such as promoting pollinator-friendly habitats and implementing integrated pest management strategies that prioritize natural pest control methods over chemical interventions. Furthermore, the burgeoning field of insect farming for food and feed presents an opportunity to address global food security challenges in a sustainable and resource-efficient manner.

Impact of Human Activities on Insect Populations: Human activities, including habitat destruction, pesticide use, and climate change, have had detrimental effects on insect populations worldwide. Loss and fragmentation of natural habitats have resulted in the decline of insect species, while the widespread application of chemical pesticides has led to significant declines in beneficial insect populations, including pollinators and natural enemies of pests. Climate change further exacerbates these challenges by altering the geographic ranges and phenology of many insect species, leading to shifts in ecosystem dynamics and potential mismatches with their host plants or prey. Recognizing and addressing the impacts of human activities on insect populations is essential for mitigating further declines and conserving their crucial ecological roles.

Conservation and Sustainable Utilization of Insects: Conservation efforts aimed at protecting insect biodiversity and promoting their sustainable utilization are essential. Studies of the diversity of most insect order have neglected Collembola, Ephemeroptera, Neuroptera and Plecoptera, which have many ecological roles and services. Monitoring should be done for each insect species so that the information can be used for conservation strategies. In addition, many other actions carried out by various stakeholders were reported, such as support of research, monitoring and evaluation of pollinator species and pollinator-dependent plants; promotion of awards, guidelines, publications and best practices; development of legal and financial instruments for the protection of insects and vulnerable habitats.

Discussion:

The multifaceted roles of insects in sustainable development and biodiversity conservation underscore the urgency of addressing the threats faced by insect populations. Habitat loss and fragmentation due to agricultural expansion and urbanization are key drivers of insect population declines. Climate change exacerbates these pressures, disrupting insect life cycles and distribution patterns. Pesticide use, particularly neo-nicotinoids, has been linked to significant harm to insect populations, including pollinators. Furthermore, pollution and invasive species also pose threats to insect biodiversity.

Conserving insect populations is imperative for ecosystem resilience and biodiversity conservation. Implementation of sustainable agricultural practices,

including reduced pesticide use and the promotion of pollinator-friendly landscapes, is essential. Protecting natural habitats and creating wildlife corridors can help mitigate the impacts of habitat loss and fragmentation. Public awareness and education programs can also play a crucial role in fostering a greater understanding of the importance of insects and garnering support for conservation efforts.

Conclusion:

In conclusion, this research underscores the critical importance of insects in sustainable development and biodiversity conservation. Insects are pivotal in maintaining ecosystem processes, supporting agricultural productivity, and contributing to human well-being. The decline of insect populations poses significant risks to ecosystems and global food security. Protecting and preserving insect diversity is essential for the sustainability of our planet.

By recognizing the immense value of insects and implementing measures to address the threats they face, we can ensure the continuation of their vital contributions to sustainable development and biodiversity conservation. It is imperative that governments, organizations, and individuals prioritize the protection of insect populations and promote sustainable practices that support their conservation.

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संपादक : डॉ. विलास खंदारे

भारतीय राजकारणात सोशल मिडीयाची भूमिका

डॉ. वंदू धावर पवार

• सार्वभौमिक प्रामाण्य व राजकारण विभाग प्रमुख, कर्नाटक शास्त्रीय संस्कृत विद्यापीठ, काशीवाडी, काशी, उत्तर प्रदेश, भारत (U.K.) वि. सं. 2

सारांश (Abstract)

आजच्या युगात सोशल मिडीया जीवनाचा महत्त्वाचा भाग बनला आहे. ज्यामध्ये माहिती प्रदान करणे, करमणूक आणि शिक्षण, समान, संस्कृति या सारख्या अनेक वैशिष्ट्यांचा समावेश आहे. सोशल मिडीया हे एक विशाल नेटवर्क आहे, जे संपूर्ण जगाला जोडले आहे. सोशल मिडीया अचूकतेचा आधार घेऊन लोकांमुळे घेत असतात, लोकही त्यावर विश्वास ठेवतात. सोशल मिडीया भारतीय राजकारणात महत्त्वाची भूमिका पार पाहत आहेत. आज जवळपास ९०% भारतीयांकडे ऑप्डोईड मोबाईलचा वापर आहे त्यामुळे सोशल मिडीयाचा प्रभाव हा भारतीय राजकारणात दिवसेंदिवस वाढत आहे.

सोशल मिडीया एक असा मिडीया आहे जो इतर सर्व माध्यमांपेक्षा (प्रिंट, इलेक्ट्रॉनिक आणि समांतर मिडीया) वेगळा आहे सोशल मिडीया इंटरनेट द्वारे अभ्यासी जग तयार करते ज्याचा वापर करणारी व्यक्ति कोणत्याही सोशल मिडीया प्लॅट फॉर्मवर (फेसबुक, ट्विटर, इन्स्टाग्राम, टेलीग्राम इ.) वापरून प्रवेश करू शकतात. सोशल मिडीया ही राजकीय पक्षांना लोकांमध्ये प्रसिद्धी मिळविण्यासाठी चांगल साधन बनली आहे. समाज माध्यमांनी सामान्य नागरिकांना आवाज प्राप्त करून दिला. या लोकांना पारंपारिक माध्यमांत स्थान मिळणे दुरापास्त होते. सोशल मिडीयांनी तरुणांना आकर्षित करून घेतले. ते ही माध्यमे फार मोठ्या प्रमाणात वापरतात.

संवाद आणि प्रचारातून मतदारांवर प्रभाव पाडण्यासाठी राजकीय पक्ष आणि नेते समाज माध्यमांचा वापर करतात. समाज माध्यमांचा वापर करणे ही नवी प्रथा पहली असून त्यामुळे वेळ वाचते तसेच मोठ्या समुदायापर्यंत पोहोचणे शक्य होते. पूर्वीचे फलक या ऐवजी राजकीय प्रचार आता ब्लॉग पोस्ट, ट्विटर फेसबुक पोस्ट, इन्स्टाग्राम पोस्ट,

ऑनलाईन जाहिराती, वॉट्स अप व्हाट्स आणि विडिओ या द्वारे केला जात आहे.

Keywords : भारतीय राजकारण, सोशल मिडीयाची भूमिका प्रस्तावना :

सोशल मिडीया संवादाचे एक चांगले माध्यम आहे. वेगवान व वेगाने माहितीची देवाण-घेवाण करण्यात त्यात सामील आहे. ज्यात प्रत्येक क्षेत्राच्या वातावर्या आहेत सोशल मिडीया ही एक सार्वजनिक भूमिका निभावत आहे. ज्याद्वारे कोणतीही व्यक्ती, संस्था, गट आणि देश इत्यादी आर्थिक, सामाजिक, सांस्कृतिक आणि राजकीय दृष्ट्या समृद्ध होऊ शकते. अशी बरीच कामे सोशल मिडीयाच्या माध्यमातून वेगळी गेली त्यामुळे लोकशाही देशातील ऐज्य, अखंडता धर्मनिरपेक्षता समाजवादी गृण वाढले आहे. राजकीय पक्ष सोशल मिडीयाचा वापर करून तरुणांचे आपल्या पक्षाच्या वाजुने किंवा इतर पक्षांच्या विरोधाला धुवीकरण घडविण्यासाठी प्रयत्न करतात सन २०१८ च्या निवडणुकीत १.५ कोटी नव मतदार त्यांचे वय १८ ते १९ होते अनेक राजकीय पक्षांनी मतदारांचा कलहाचा अभ्यास केला त्यांना मतदानासाठी प्रोत्साहित केले.

समाज माध्यमावर देखरेख करणारी जनता नसते त्यामुळे राजकीय नेते, आपल्या पक्षाचा प्रचार करण्यासाठी समाज माध्यमांचा वापर अधिक प्रमाणात करतात बहुतेक नेते विरोधी नेत्याची प्रतिमा द्यावण्याचा प्रयत्न व्हिडीओ किंवा टेक्स्ट मेसेजद्वारे करतात आता राजकीय नेते थेट लोकांशी बोलून त्यांची मते आणि त्याचा प्रतिसाद जाणून घेतात त्यांनी निवडलेल्या प्रतिसादाच्या आधारे निर्णय घेतात.

सोशल मिडीया आपल्या विचारांचा प्रचार करण्यासाठी आणि तेथून माहिती मिळविण्यासाठी राजकीय पक्ष व्यावसायिक व्यक्तीची नियुक्ती करतात.

विविध राजकीय परिस्थिती आणि राजकीय मोहिमा या विषयी लोकांना आपले मत व्यक्त करण्याची संधी सोशल मिडीयांमुळे मिळते. राजकीय प्रश्न तसेच राष्ट्रीय, प्रादेशिक आणि स्थानिक राजकारणात तरुणांना सहभागी होण्याची संधी सोशल मिडीयांमुळे उपलब्ध होत आहे.

यामुळे वृत्तमानपत्रे आणि वृत्तवाहिण्या यावरील विखुरलेल्या स्वरूपातील चर्चेचे स्वरूप बदलून गेले लोक तसेच त्यासाठी राजकीय घडामोडींवर अथवा कार्यक्रमांवर मत व्यक्त करू शकतात. समाज माध्यमांद्वारे लोक अधिकारी व पदाधिकार्यांवर निर्णय होण्यासाठी दबाव ही आणू शकतात. यामुळे राजकीय जागरूकता वाढवण्यास हातभार लागला आहे. समाज माध्यमांनी भारतीय लोकशाहीचे किंवा राजकारणांचे चित्रण बदलून टाकले आहे. सर्व प्रमुख पक्ष माध्यमांचा वापर सातत्याने करतात अनेक राजकीय पक्ष सोशल मिडीयांचा वापर करून निवडणुका यशस्वी केल्या आहेत.

संशोधनाची उद्दिष्ट्ये :

१. मतदारांवर सोशल मिडीयांचा प्रभाव पडतो का?
२. निवडणुकात यशस्वी होण्यासाठी सोशल मिडीयांचा उपयोग होतो का याचा अभ्यास करते.
३. निवडणुकांत सोशल मिडीयांची भूमिका अभ्यासने

संशोधनाची गृहितके :

१. सोशल मिडीयांचा राजकारणावर प्रभाव पडत आहे.
२. निवडणुकात सोशल मिडीयांची भूमिका महत्त्वाची आहे.
३. निवडणुकीत सोशल मिडीयांमुळे यशस्वी होतो.
४. निवडणुकीत सोशल मिडीयांचे योगदान

संशोधन पद्धती

भारतीय राजकारणात मिडीयांची भूमिका हे संशोधन करित असतांना संशोधन पद्धतीतील वर्णनात्मक संशोधन पद्धतीचा वापर केला आहे. हे संशोधन करतांना दृष्यम साधनांचा वापर केला आहे.

भारतीय राजकारणात सोशल मिडीयांची भूमिका

१. भारतीय राजकारण

भारताने संसदीय लोकशाहीचा स्वरूप केलेला आहे. भारतीय लोकशाहीत निवडणुका ह्या

कार महत्त्वाच्या आहेत १९५२ च्या निवडणुकांपासून ते २०१४ च्या निवडणुकात भारतीय विविध पक्षांनी भारतीय मतदारांना विविध आघोष दाखवून निवडणुका जिंकल्या आहेत. त्यामध्ये भारतीय राष्ट्रीय काँग्रेस पक्षाचे प्राबल्य जास्त प्रमाणात होते परंतु २०१४ च्या निवडणुकीत भारतीय जनता पक्षाने ज्या प्रकारे प्रचार माध्यमे आणि सोशल मिडीयांचा वापर करून २०१४ ते २०२४ पर्यंत ते केवळ सत्तेत आहेत हे सर्व सोशल मिडीया प्रभाव दिसून येतो. सोशल मिडीयात राजकीय पक्ष व्यवसायीक लोकांची नियुक्ती करू लागले. यामुळे लोकांची मते जाणून घेता येते. राष्ट्रीय व स्थानिक राजकारणात मतदारांचा सहभाग वाढविता येतो स्वतःचे मत मिडीयावर व्यक्त करता येते समाज माध्यमांनी भारतीय लोकशाहीचे चित्र बदले आहे.

सोशल मिडीयांची भूमिका :

अलिकडच्या काळात प्रत्येक राजकीय पक्षाचा आयटी सेलमध्ये एक मुख्य मध्यवर्ती टीम असते. त्याच्या मार्गदर्शनाखाली प्रत्येक राज्य, जिल्हा, तालुका व गावपातळीवर आयटी सेलचे पदाधिकारी तयार केले. एवढेच नव्हे तर युथच्या रचने नुसार पदाधिकारी नियुक्त करून आयटी सेल अधिक मजबूत केला भाजप व काँग्रेस वरोवर इतर पक्षांनी आयटी सेलची निर्मिती केली खरी परंतु प्रभावी पणे कार्यकर्ते नियुक्त केले नाही.

भाजपाने आक्टोबर २०१४ मध्ये 'स्वच्छ भारत अभियान' सुरू केले त्यानंतर डिजिटल इंडिया ही चळवळ २०१५ मध्ये सुरू केली त्यानंतर आंतरराष्ट्रीय योगा दिवस, मेक इन इंडिया, सागर मार्ग योजना, आधुनिक कॅरिडॉर याचा प्रसार, प्रचार मोहिम सोशल मिडीयावर अत्यंत प्रभाविपणे करण्यात आली या व्यतिरिक्त पक्षाच्या फायद्याचे जनमत घडवणारे वेगळे संदेश तयार करून ते सोशल मिडीयावर पाठवत जात होते, भाजपाची देश पातळीवर २५० लोकांची सुपर टीम काम करत होती. त्याच्या माध्यमातून हजारो कार्यकर्ते या चळवळीत सहभागी झाले.

वॉर रूम :

सगळ्या राजकीय पक्षामध्ये भारतीय जनता पक्षाची वॉर रूम ही सर्वाधिक सक्रिय असल्याचे मानले जाते. सोशल मिडीया प्रभावीपणे हाताळण्यात भाजपची वॉर रूम इतर पक्षांच्या तुलनेत कायम पुढे आहे. २०१४ निवडणुकीत आक्रमक प्रचार करून वातावरण निर्मिती करण्यात वॉर रूमचा वाटा मोठा

होता. गावठी भाजप पुढे शता दिकलण्याची मोठे आश्वासन आहे. सामुळे वॉर रुम मध्ये पूरती पेक्षा उभाने जलम घालते सामाजिक पक्षाच्या काजुने विक्वा विरोधात घाललेल्या घडामोडीचे विश्लेषण देखे जाते. पक्षाच्या का उमेदारांच्या विरोधात खोटा प्रचार सुरु असेल तर तात्काळ वस्तुस्थिती सांगण्यास मजकूर, खुलासे परिशिद्ध करणे हे जलम सुद्धापातळीवर होतो. सरकारन राजविलेच्या योजना, त्याचे लाभ, लाभार्थी विलप तयार करून मतदारांपर्यंत पोहचवणे यात आर्थिक लक्ष ठेवले जाते. पक्षातील नेत्यांच्या विरोधात वाईट बातम्या किंवा व्हिडीओ विलप व्हायरल झाली असेल तर त्या विलपचे खंडन करून वस्तुस्थिती मांडणारी विलप पुढच्या पंधरा मिनीटात सोशल मिडीयावर भाजपच्या वतीने टाकण्यात येते. काँग्रेस वार रुम मुंबईतील अंधेरी आणि मुंबई प्रदेश काँग्रेस कार्यालयात असलेल्या वॉर रुममध्ये दिवटर, फेसबुक, व्हॉट्स अॅपवरील मेसेज चाहे निघोजन होत होते. तेथे २२जत जलम करत होते. नंतर त्यांच्यात वाढ करण्यात आली काही जन पोस्टचे डिझायनिंग करावचे तर काही समन्वयाचे काम करत होते कार्यकर्त्यांशी समन्वय साधून नेत्यांना आवश्यक ती माहिती पुरविली जात होती काँग्रेस पक्षाचे कार्य व द्येय धोरणे वॉर रुम मधील सोशल मिडीयाचे सैनिक पाठवत होते इतर भाषामध्ये गुजराती, इंग्लीश, हिंदी, उर्दू आदि भाषातून मेसेज सहज पाठवले जात होते. फेसबुकद्वारे लाईव्ह संवाद करून थेट लोकांशी संपर्क साधता येतो.यंदाच्या निवडणुकीत सोशल मिडीया रुप महत्त्वाचे ठरत असल्याचे या प्रतिनिधीना योग्य प्रशिक्षण देऊन आधुनिक काळाशी समाजाला जोडून घेण्यासाठी दुवा बनवून वॉर रुममध्ये स्वतःच हाताळतात. त्यासाठी त्यांना वॉर रुम मधून काही गोष्टी सुचवल्या जातात. मात्र या संदर्भातील वॉर रुमचा थेट सहकार्याची तेवढ्यापूरता आहे. सोशल मिडीयावरील ही तयारी उमेद्वाराला किती तारते याचा अंदाज फॉलोअर्सच्या संख्येवरून पाहिले जात त्यामुळे त्यांच्या निकातावरून काय ते स्पष्ट होईल शिवसेना सेना आक्रमक भाषा शैली यांची नेहमीच सांगड घातली जाते. सध्या निवडणुकाचा फड जिकण्यासाठी सोशल मिडीयाची साथ तोला मोलाची आहे. त्यामुळे निवडणुका प्रचारात आधुनिक तंत्रावर हुकुमी प्रभुत्व असण्याची आवश्यकता आहे. शिवसेनेही अन्य पक्षा प्रमाणे सोशल मिडीयाचा पुरेपूर वापर करण्यावर भर

दिला आहे. गेल्या काही वर्षांपासून शिवसेने सोशल मिडीयाच्या सहाय्याने प्रभावी प्रचार तंत्र ही हाली घेतले आहे त्यासाठी शिवसेना भवनात वॉर रुम कार्यरत आहे. या चमुकडून, फेसबुक, दिवटर, व्हॉट्सअॅप, इन्स्टाग्राम, शेअर चॅट आदी सर्व साधनांचा वापर घेला जातो.

तरुणांची भाषा अशी ओळख असलेल्या समाज माध्यमा वरून नव मतदारांना आपलेसे करण्यासाठी सर्वच राजकीय पक्षामध्ये जोरदार रस्सीखेच सुरु आहे राजकारणातील अनप्रेडिक्टबल पार्टी अशी ओळख ठरलेला राष्ट्रवादी काँग्रेस पक्षाची यात पिछाडीवर नाही. फेसबुकवर सुमारे आठ लाखाहून अधिक फॉलोअर्स असलेले राष्ट्रवादी काँग्रेस पक्षाचे एकमेव पेज असल्याचा दावा पक्षाकडून करण्यात आला वॉर रुम मध्ये २० जणाची मुख्य टीम कार्यरत करण्यात आली आहे केंद्रीय कार्यालयात पॉलिटिक्स, निगोटिक्स आणि न्युट्रल या पद्धतीने बातम्याचे वर्गीकरण करण्यात येते पक्षाने मोबाईलवर जाहीरनामा व्हायरल केला होता गेल्या पाच वर्षांच्या लेखा जोका नव मतदारापर्यंत पोहचविला जात होता निवडणुकीच्या काळात फेसबुक पेजाला आठ लाखाहून जास्त फॉलोअर्स होते तर दिवटर सुमारे तीन लाख फॉलोअर्स होते. तसेच जिल्हा निहाय व गाव निहाय व्हॉट्स अॅप ग्रुप होते.

मिडीया सेंटरचे लक्ष :

मिडीया सेंटर हा वॉर रुम सारखाच आहे यामध्ये एफ एम रेडियो विविध टि व्ही चॅनल व सोशल मिडीया वरील उमेद्वारांच्या प्रचारावर लक्ष ठेवले जाते. या तिन्ही माध्यमावर लक्ष ठेवण्यासाठी ५० जनांचे चमु प्रत्येक जिल्हा स्तरावर कार्यरत आहे. या माध्यमातून प्रत्येक तिन्ही प्रकारच्या माध्यमांच्या प्रचारावर लक्ष ठेवले जाते. सर्वात प्रभावी माध्यम म्हणजे सोशल मिडीया आहे यावर निवडणुक आयोगाचा चमु ही लक्ष ठेवून असतो.

नेते प्रवक्ते यासाठी टिपने :

एखादी महत्त्वाची घटना घडली तर त्यावर आधारित टिपन काढून प्रवक्ते व महत्त्वाच्या नेत्यांना पाठविले जाते. प्रत्येक मुद्यावर नेहमी पक्षाची भुमिका त्यातील प्रमुख मुद्दे ही माहिती नेण्यापर्यंत पोहचली जाते त्यामुळे मिडीयासमीर जाताना नेते तयारीत असतात. बुध स्तरापर्यंत मिडीया कार्यरत आहे सकाळी दहा वाजता इलेक्ट्रॉनिक, माध्यमांना

सायंकाळी चार वाटता इलेक्ट्रॉनिक व वृत्तपत्रांच्या प्रतिनीधींना माहिती दिली जसे बातम्याचे वाचन करून महत्त्वाच्या मुद्याचे व कातम्याचे टिपणे दिली जातात.

निष्कर्ष :

१. राजकीय पक्षांना जसे सोशल मिडीयावर संख्येने समर्थन मिळतात .
२. सोशल मिडीयावर नकारात्मक आणि सकारात्मक परिणाम पाहता येते .
३. खोटे आकांशंट खोट्या बातम्या पसरविल्या जातात.
४. संघर्षाच्या काळात समाज माध्यम महत्त्वाची भूमिका बजावतात.

समाज माध्यमामुळे काही नेत्यांच्या कारकीर्दीवर प्रश्नचिन्ह निर्माण झाले.प्रतिकूल पोस्टमुळे त्याची कारकीर्दत संपुष्टात आली.

संदर्भ :

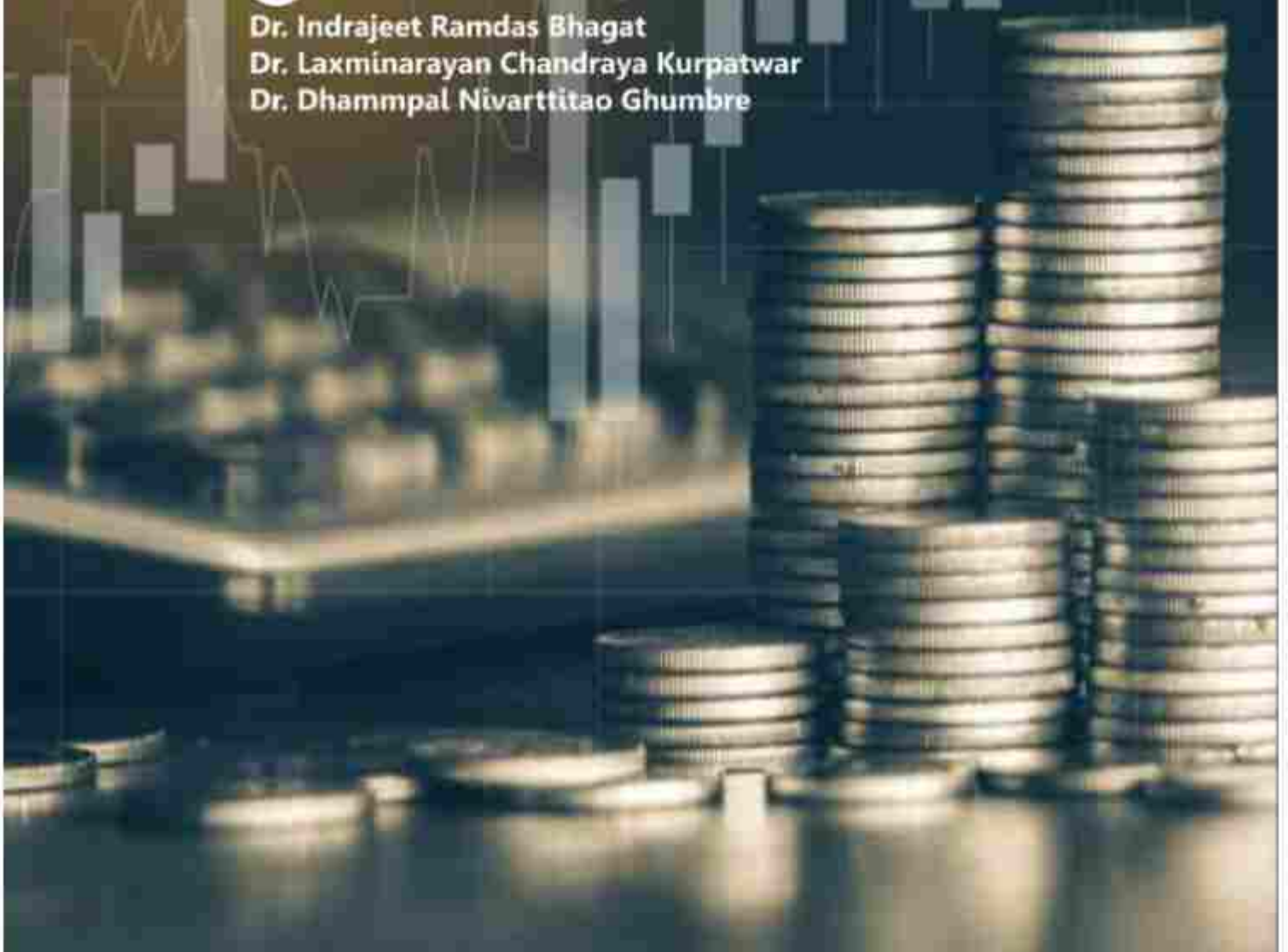
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This textbook has been designed as per the NEP 2020 and new syllabus prescribed by the Universities in India.

Indian Banking System

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Taran Publication
New Delhi

Indian Banking System

Edition: Jan 2024

ISBN: 978-81-19295-94-4

Price: 1250/-

Published By

Taran Publication

www.taranpublication.com

Email: taran.publication@gmail.com

Contact: +91-8178286638

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INR : ₹1250

Implementation of National Education Policy 2020: Adoption of Academic Bank of Credits



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Implementation of National Education Policy : Adoption of Academic Bank of Credits

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NATIONAL EDUCATION POLICY 2020; HOME SCIENCE, A CONCRETE WAY FOR EXPERIENTIAL AND SKILL BASED LEARNING

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INTRODUCTION:

To overcome the skill gap that is influencing employability in every sector, reformation of the education system becomes significant. The National Education Policy 2020 recommends the modification and refurbishment of all features of education, along with the educational structure, policy and governance, creating a new system aligning with the inspirational goals of 21st century students. The policy aims revelation to skill education, to at least 50% of learners through the school and higher education system by 2025 and for that a clear action plan with an objective and specific timeline has to be developed. NEP 2020 aims to triumph over the hierarchy related with skill education and it's integration into conventional education in educational institutions.

Professional education will be incorporated right from the secondary schools in a segmented way over the next decade. Academic and professional capacities will go hand-in-hand with other capacities. For achieving this goal, collaboration between secondary schools and Industrial Training Institutes (ITIs) like, Polytechnics, Local Industry, etc should be developed. Skill labs incubation centers shall be created and developed in the schools and higher education institutions that will be helpful to other schools and colleges also. Higher education institutions can offer vocational education on their own or in collaboration with industry and other institutions. (1)

By 2030 a 29 million Skill deficit is predicted by expert opinion data of International Labor Organization (ILO) and the National Council for Skill Development and Entrepreneurship (NCSDE). Today the skill gap is having an impact as, 53% of Indian businesses are unable to appoint apposite candidates because of the lack of future skills. So to fill this gap, the mentoring platform comes as consent to help an individual to achieve professional skills and surpass personal and professional goals. Furthermore, it also encourages solutions to fill in the skill gap for future growth (2). But before implementing Skill education in educational institutions we have to first have a view of recommendations of National Education Policy 2020.

RECOMMENDATIONS FRO SKILL EDUCATION BY NATIONAL EDUCATION POLICY 2020

The National Educational Policy 2020 disseminates experimental and skill-based learning. Putting forward such a disrupting plan is certainly a bold move by the Indian government that surely deserves a positive reception and executing this courageous

tion is going to be a key challenge. There is nervousness among all but the initiative will surely get a positive response with the time. Specially in terms of skill Education NEP aims for.

- Giving increased flexibility and choice of subjects to study, in secondary school with subjects in physical education, arts and crafts, and vocational skills for students to design their own path of study and life plans (NEP 4.9)
- Vocational education programs will be integrated into mainstream education step by step, including beginning with vocational exposure at early ages in middle and secondary school. (NEP 16.4)
- 'Lok Vidya', i.e., important vocational knowledge developed in India, will be made accessible to students through integration into vocational education courses. (NEP 16.5)
- Focus areas for vocational education will be chosen based on skills gap analysis and mapping of local opportunities in collaboration with industry, to oversee this effort. (NEP 16.6)
- Different models of vocational education, and apprenticeships, will also be experimented by higher education institutions. Incubation centers will be set up in partnership with industries. (NEP 16.7)

CHALLENGES IN IMPLEMENTING SKILL EDUCATION

Incorporation of vocational education with general education with focus on social inclusion, gender equality and inclusive education is the main challenge before NEP 2020. For that skill-based activities should be introduced from pre-school to Grade XII. Curriculum has to be reformed through improved content of vocational knowledge and skills, improved course alliance with skill standards and interdisciplinary content connections. Workplace related skills and attitudes through internships and on-the-job training should be developed. Vocational Interest Inventory in Grade VIII and Skill Based Aptitude Test (SBAT) in Grade X should be introduced for the guidance of students for selection of career choice. It is necessary to ensure that courses are relevant to supposed social and economic needs. National Occupation Standards (NOSSs) should be in distinct with learning outcomes and functional consistently in all institutions.

The focus should be on developing good practices and innovations by teachers in teaching-learning process and facilitating horizontal mobility of vocational students in schools. For that educational institutions should ensure private sector participation and funding. Education institutions should collaborate with Industrial Training Institutes, polytechnics, local businesses, industries, hospitals, agriculture farms, local artisans and NGOs through Hub and Spoke Model for imparting skills training. (3)

ADDRESSING SKILL DEFICIENCIES THROUGH HOME SCIENCE

With changing time the norms of society have also changed, the previous norms of society no longer hold ground. The thoughts and ideas of people have drastically changed. The activities that were once been considered to be too "manly" or too "feminine", today don't exist. The differences between the sexes appear to be vanishing, slowly but steadily. In education field also there are some streams like

Home Science that were considered as feminine subjects but today this subject is gaining the attention and interest of many men around the world and in India too

In last few decades' health and nutrition, textile and clothing, Family resource management, rural development, PCB, community living, human development and other housing related stuff have gained an importance. Hence, the essential knowledge and skills gained through the study of home science have become equally important (4)

In terms of NEP 2020 if we see, recently Home Science is a course that is gaining enormous recognition among students due to its wide relevance in industries like clothing and textiles, food preservation and training and interior decoration etc. Because of which more colleges are getting encouragement to start various bachelor's degree, masters and diploma courses in this field. Home science is a practical oriented course that empowers and inspires women and youth for skill education (5, 6)

Home science is a course that allows a student to choose from a large number of avenues as a career. It doesn't limit the options to choose from. It makes students aware of the changing living standards, fashion, food, and many more things. Home science improves ones decision-making skills regarding the purchasing and budgeting of everything. It helps in making a person a smart worker. It helps student in understanding human development and behavior. It helps us in knowing our consumer rights and duties and prevent for getting exploited by the market owners. Through home science we learn to use the available resources intelligently, scientifically, and systematically. It ultimately helps in improving the our social and family's life by providing lifelong education. (7)

SELF EMPLOYMENT OPPORTUNITIES IN HOME SCIENCE

As NEP 2020 aims in empowering students through skill education and making strengthening them for self-employment, Home Science is an appropriate choice of course to study. They can use the subject knowledge to upgrade their skills in manufacturing products and designs. Home science course can be beneficial for graduate in different aspects such as:

- Production jobs cover the food preservation, dress-making, specialized cooking, etc. Graduates of Home Science can enter the textile business, fashion designing etc. or even work in hotels, the food industry etc.
- Research jobs involve educating specific segments of the population such as mothers, farmers, and villagers on the food value of certain food items.
- Sales jobs comprise sales promotion of food items (baby foods) are given to home science graduates granted they have relevant information and experience.
- Service jobs consist of maintenance and supervision of housekeeping departments at tourist resorts, hotels, catering facilities, restaurants etc.
- Teaching jobs: The recognized qualification for a primary school teacher is a Bachelors degree in Home Science and many postgraduates also are taken on as senior secondary school teachers and college professors. (8)

Conclusion

The talent-skill gap exists at various levels and is significant. It is affecting the employability scenario in almost every sector. As per the International Labor Organization, there will be a skill deficit of 29 million by 2030, which will significantly affect the country's GDP. Due to this gap, businesses are unable to find and recruit talent that matches their expectations due to the lack of futuristic skills.

The major reason for this is the inadequacies in our education system along with the companies not prioritizing on-job training. However, the National Education Policy 2020 is perceived to be a blessing in disguise in such a scenario that will help bridge this gap by providing students with industry-relevant skills so as to make them future-ready professionals. It is anticipated that the National Education Policy will not only reduce the social stigma associated with considering vocation as a career opportunity but will also provide students a plethora of promising career avenues. In these terms career in Home Science is a great opportunity for students to develop their carrier. As the market is transforming significantly and the evolving needs of employers will be catered to effectively.

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deal International E-Publication

Pvt. Ltd.

427, Palhar Nagar, BAPTC, VIP-Road, Indore-452005 (MP) INDIA
Phone: +91-731-2616100, Mobile: +91-80570-83382
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Title:	Implementation of National Education Policy: Adoption of Academic Bank of Credit
Editor(s):	Dr. Anushree Khaire, Dr. Kanchan Deshmukh, Mrs. Rajashri Tambe
Edition:	First
Volume:	I

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2023

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ISBN: 978-93-89817-85-0

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Insects: Key Players in Sustainable Development and Biodiversity Conservation

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Abstract:

The most acquiring species on earth are Insects and are usually overlooked when considering the crucial roles, they play in sustainable development and biodiversity conservation. Recent evidences suggested that insect populations may be declining at local and global level, threatening the sustainability of the ecosystem which provided by insects. The conservation of insect diversity is therefore a topic of global importance. This paper presents an overview of the importance of insects in these domains and the pressing need to protect them. The methods of this research involve a comprehensive review of existing literature and case studies that demonstrate the significant contributions of insects to sustainable development and biodiversity conservation. The results highlight the multifaceted roles of insects in pollination, pest control, waste decomposition, and their impact on ecosystem functioning. The discussion delves into the threats faced by insect populations and the measures required to preserve their diversity and abundance. Finally, the paper concludes with a call to action to recognize the pivotal role of insects in sustaining ecosystems and promoting biodiversity conservation.

Key words: Insect, sustainable development, biodiversity

Insects: Key Players in Sustainable Development and Biodiversity Conservation

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Key words: Insect, sustainable development, biodiversity

Introduction:

Insects are the most abundant animals in the world, with all species accounting for more than 70% of the global animal population. Throughout human existence, insects have initially been viewed as "enemies." According to reports, insect pests cause 25–80% of agricultural losses worldwide; the amount of food they eat would be enough to feed over a billion people (Birch et al., 2011). Insects have been and still remain to be important causes of socioeconomic stressors like starvation and health crises, which makes them barriers to reducing poverty. But insects and other invertebrates also play an important role in ecological webs, offering essential ecosystem services like carbon sequestration in soils, organic matter recycling, pollination and seed dissemination in food systems, and water filtration (Schowalter, 2013). They are responsible for a wide range of functional roles within the ecosystem, contributing to the ecosystem service framework (Metcalf et al. 2014; Noriega et al. 2018; Ollerton 2021; Seibold et al. 2021). From pollination and pest control to waste decomposition and nutrient recycling, insects play critical roles in maintaining ecosystem processes and services. In addition, insects provide a variety of unconventional ecosystem services (Morimoto 2020), including plastic degradation (Bombelli et al. 2017) and many contributions to human culture and tourism. (Duffus et al. 2021 and Jacinto Padilla et al. 2021).

The outline of insects and their colorful body patterns have initiated prominent contributions to our art, literature and culture and offer great educational tools (Pyle et al., 1981). In many regions, insects are also an important part of the human

diet. Some insects have great value in Chinese medicine. Insects form an essential part of the Earth's ecosystems, receiving relatively little attention compared to larger organisms, yet their contributions are far-reaching and fundamental for sustainable development and biodiversity conservation.

The global ecological and socioeconomic impacts of insects and other arthropods are very important for several sustainability goals. Despite their importance, insect populations are under pressure due to habitat loss, climate change, pollution and pesticide use, resulting in reduced abundance and diversity. This paper aims to underscore the significance of insects in sustainable development and biodiversity conservation and advocate for their protection and preservation.

Methods:

This research involves a comprehensive review of existing literature, including scientific studies, reports, and case studies that illustrate the roles of insects in sustainable development and biodiversity conservation. The review encompasses research on insect pollinators, pest control, decomposition, and their broader impact on ecosystem functioning. Case studies from various regions are also examined to present specific examples of the contributions of insects to sustainable development and biodiversity conservation.

Results:

Insects, particularly pollinators such as bees, butterflies, and other species, are crucial for the reproduction of numerous plant species, including many of the crops on which human populations depend. The economic value of insect pollination services is immense, contributing significantly to agricultural productivity and food security. In addition to pollination, insects provide natural pest control by preying on pest insect species, which reduces the reliance on chemical pesticides and associated environmental impacts. Furthermore, insects are integral to the process of decomposition, breaking down organic matter and facilitating nutrient recycling in ecosystems.

The decline of insect populations poses a significant threat to ecosystem functioning and biodiversity. Loss of insect diversity can lead to imbalances in food webs, reduced pollination services, disruptions in nutrient cycling, and impacts on ecosystem stability.

The Role of Insects in Agriculture: Insects provide indispensable services to agriculture through pollination and pest control. Pollinators, including bees, butterflies, and other insects, facilitate the reproduction of many flowering plants, thereby supporting crop production and enhancing the genetic diversity of plant populations. Moreover, insects such as ladybird beetles, parasitic wasps, and predatory bugs act as natural enemies of pests, contributing to the reduction of crop damage without the need for chemical pesticides. The reliance on insect pollinators and natural pest control services underscores the critical role of insects in ensuring food security and sustainable agricultural practices.

Insects and Ecosystem Services: Insects contribute significantly to the provision of ecosystem services, including nutrient cycling, soil aeration, and decomposition of organic matter. From dung beetles processing animal waste to termites breaking down cellulose in decaying wood, insects play a crucial role in maintaining ecological balance and healthy ecosystems. They facilitate the recycling of nutrients and the decomposition of organic matter, which are essential processes

for the productivity and sustainability of natural ecosystems. Additionally, insects are pivotal in supporting diverse food webs and providing sustenance for many other species, making them integral to the overall functioning of ecosystems.

Challenges and Opportunities in Harnessing the Potential of Insects for Sustainable Development: While insects offer numerous opportunities for sustainable development, they also present challenges that need to be addressed. One such challenge is the impact of habitat loss, pollution, and climate change on insect populations, leading to declines in their diversity and abundance. These factors contribute to the disruption of essential ecological processes and the loss of valuable ecosystem services provided by insects. However, there are also opportunities to harness the potential of insects through sustainable agriculture practices, such as promoting pollinator-friendly habitats and implementing integrated pest management strategies that prioritize natural pest control methods over chemical interventions. Furthermore, the burgeoning field of insect farming for food and feed presents an opportunity to address global food security challenges in a sustainable and resource-efficient manner.

Impact of Human Activities on Insect Populations: Human activities, including habitat destruction, pesticide use, and climate change, have had detrimental effects on insect populations worldwide. Loss and fragmentation of natural habitats have resulted in the decline of insect species, while the widespread application of chemical pesticides has led to significant declines in beneficial insect populations, including pollinators and natural enemies of pests. Climate change further exacerbates these challenges by altering the geographic ranges and phenology of many insect species, leading to shifts in ecosystem dynamics and potential mismatches with their host plants or prey. Recognizing and addressing the impacts of human activities on insect populations is essential for mitigating further declines and conserving their crucial ecological roles.

Conservation and Sustainable Utilization of Insects: Conservation efforts aimed at protecting insect biodiversity and promoting their sustainable utilization are essential. Studies of the diversity of most insect order have neglected Collembola, Ephemeroptera, Neuroptera and Plecoptera, which have many ecological roles and services. Monitoring should be done for each insect species so that the information can be used for conservation strategies. In addition, many other actions carried out by various stakeholders were reported, such as support of research, monitoring and evaluation of pollinator species and pollinator-dependent plants; promotion of awards, guidelines, publications and best practices; development of legal and financial instruments for the protection of insects and vulnerable habitats.

Discussion:

The multifaceted roles of insects in sustainable development and biodiversity conservation underscore the urgency of addressing the threats faced by insect populations. Habitat loss and fragmentation due to agricultural expansion and urbanization are key drivers of insect population declines. Climate change exacerbates these pressures, disrupting insect life cycles and distribution patterns. Pesticide use, particularly neo-nicotinoids, has been linked to significant harm to insect populations, including pollinators. Furthermore, pollution and invasive species also pose threats to insect biodiversity.

Conserving insect populations is imperative for ecosystem resilience and biodiversity conservation. Implementation of sustainable agricultural practices,

including reduced pesticide use and the promotion of pollinator-friendly landscapes, is essential. Protecting natural habitats and creating wildlife corridors can help mitigate the impacts of habitat loss and fragmentation. Public awareness and education programs can also play a crucial role in fostering a greater understanding of the importance of insects and garnering support for conservation efforts.

Conclusion:

In conclusion, this research underscores the critical importance of insects in sustainable development and biodiversity conservation. Insects are pivotal in maintaining ecosystem processes, supporting agricultural productivity, and contributing to human well-being. The decline of insect populations poses significant risks to ecosystems and global food security. Protecting and preserving insect diversity is essential for the sustainability of our planet.

By recognizing the immense value of insects and implementing measures to address the threats they face, we can ensure the continuation of their vital contributions to sustainable development and biodiversity conservation. It is imperative that governments, organizations, and individuals prioritize the protection of insect populations and promote sustainable practices that support their conservation.

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Akshita Publishers and Distributors
Delhi-110053 (India)

Published by :

Akshita Publishers and Distributors

H.No. J-180/5-A, 4th Pusta,

Pahari Hotel Wali Gali

Opposite Ajay Medical Store,

Kartar Nagar, Delhi-110053

E-mail: abooks2019@gmail.com

Mobile: 9968053557, 9811149816

Indian Writing In English: *An Introduction*

© Author

First Edition 2023

ISBN: 978-93-91120-20-7

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PRINTED IN INDIA

Published by Akshita Publishers and Distributors, Delhi-110053. Laser Type Setting at Shahabuddin Computers, Printed at Milan Enterprises, Delhi-110002.

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