



Environmental Engineering Report (EER) Safeguard Policies for Environment



With
Environmental Checklist, Management and Monitoring Plan
"Environment Compliance" (EC) and MoEF & CC Policy
Guidelines' for **NHAI** – Nanasa to Pidgaon Section of NH –
47 (Old NH – 59A), in the State of Madhya Pradesh on
HAM



NHAI: National Highway Authority of India,

June, 16th to 26th, 2023



Office Letter Ref. No.:

Dated: 16 - 06 - 2023 upto 26 - 06 - 2023

To

The Resident Engineer/ Team Leader/ Project Director NHAH (PIU) Office, Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km, HARDA (Madhya Pradesh State).

Subject: Initial Preliminary Basis Observations/ Review and Environmental Engineering as well as Audit Aspects and Prospects with Brief Summary (Dated: 16 - 06 - 2023 upto 26 - 06 - 2023) - reg.

With due respect, I would like to highlight some significant points and overviews regarding technical parts of observation and environmental - related work performed during visits to many places and chainages located @ 00.000 Km to Chainage @ 47.445 Km (Design Chainage) under Bharatmala Pariyojana Phase - III Bharatmala Pariyojana Phase - I (Economic Corridor) in the State of Madhya Pradesh on "Hybrid Annuity Mode" (HAM) in the State of Madhya Pradesh. Package - 1 Stretch (Total Length 47.445 Kms):

Sr. No.	Description	Remarks
1.	Initially, a Trees Plantation must be carried out at camp locations with the collaborative efforts of the Project Director, Team Leader along with significant source/ chainages as well as points of Harda Section Road .	: Need to be Improved and Implemented;
2.	Collaborative task is being performed by Team Leader's Team as well as Resident Engineer Champs throughout is marvellous outcome task performance in the month of June 2023 duration and time period of the project road construction management activities are going on very fast in progress without any delay @ all projected sites and locations.	: Good Updates Practice and Excellent Work;
3.	Most of the construction activities along the projected are road found to be in good condition and contractors, workers, are taking care of all kinds of Health and Safety measures are following COVID - 19 Norms/ Conditions, while working @ construction sites/ places.	: Safety Measures are Considered;
4.	Construction of Road Side Drains, RE Walls' Panels/ Structure are maintained satisfactory along the projected site in the highway construction road.	: Satisfactory and Need to be Improved;
5.	"Initial Environmental Examination" (IEE), "Environmental Management Plan" (EMP), "Environmental Impact Assessment" (EIA) Guidelines has been followed by the contractor and concessionaire consistently.	: Guidelines, Rules and Slandered are Followed;
6.	The monitoring certificates "Consent to Operate" (CTO)/ "Consent to Establishment" (CTE) for Air, Noise, Water, Ground Water, Surface Quality Testing has to be done by Certified and Accredited Laboratory and Further IE has Instructed to Measuring the Environmental Parameters for the Project Area...!!! Mandatory Parameters of Monitoring and Measurements must be followed by MoEF, NABL, NABET, and An ISO: 9001 - 2025 and OHSAS 18001: 2007 Certified Company (Centre for ADANI GROUP and Management Consultancy Pvt. Ltd.)... Regarding Projected Road Construction... Network...!!! (a) Near @ Harda and Laboratory Site Visit the compliance will be OR must be carried out for as Mandatory Parameters of Monitoring and Measurements followed by MoEF, NABL, NABET Certified and Accredited Laboratory for "Air Quality Index" (AQI), Water Quality (pH Value, Turbidity, COD, BOD, Electrical Conductivity, TDS, TSS, Parameters etc.), Noise, Ground Water, Surface Water Quality, Soil Testing and Monitoring are mandatory for final stage of projected work OR task must be completed as for the purpose of "ENVIRONMENTAL AUDIT" (EA) Report Work @ Harda under NHAH (PIU), HARDA...!!!	: Applied and Followed Standard Norms of CPCB/ NAAQM/ MSPCB etc.;



	<p>(b) At many places and chainage it's found to be the air quality is very poor nearby surrounding locality of inhabited/ densely populated areas and residential areas...!!! Mandatory steps has to be taken by the Contractor/ ADANI GROUP and concessionaire to improve and measure the mandatory parameters of "Air Quality Index" (AQI) along with all monitoring and determining constraints as per CPCB/ SPCB/ NAAQM/ IRC: Code Practices/ Guidelines and Standard Norms;</p> <p>(c) During the laboratory an camp site visit on dated 23 - 06 - 2023 found ongoing process and progress of the work satisfactory following all mandatory as well as satisfactory MOEF/ MORT&H Standard Guidelines;</p> <p>(d) Laboratory and camp site are fully equipped with highly sophisticated instruments' installation for the purpose of concrete road highway construction network and fulfils the needs and requirements of ongoing project work;</p> <p>(e) Regarding all kinds of audits (including environmental audit) the contractor is having full - fledged installation on their camp as well as laboratory site along with compulsory requirements all kinds of testing certificates to present in the concerned authority like NHAI (PIU)/ RO Office Bhopal etc.</p> <p>(i) At all chainages RHS/ LHS respectively for Air Pollutants/ Quality Monitoring Parameters' Measurement Techniques are being/ will be followed...!!!</p> <p>(ii) At all chainages RHS/ LHS respectively for Noise Monitoring Parameters' Measurement Techniques are being/ will be followed...!!!</p> <p>(iii) At all chainages RHS/ LHS respectively for Water/ Surface Water/ Ground Water/ Ponds/ Lakes/ Rivers/ Canals/ Stream Channels etc. if anyhow possible...!!! Sampling Monitoring along with DG Set Stack Monitoring Parameters' Measurement Techniques are being/ will be followed...!!!</p> <p>(iv) At all chainages RHS/ LHS respectively for Soil Sampling Locations/ Monitoring Parameters' Measurement Techniques are being/ will be followed... As per Standard Norms of CPCB/ NAAQM/ MPSPCB Guidelines...!!!</p>	
7.	Moreover @ All Camp sites' labs were found to be well furnished to check various types of testing materials related to construction road network @ projected camp number - 1 and camp number - 2 nearby site road locations.	: Found Satisfactory;
8.	Most of the Borrow Areas, Dumping Sites, Batching Plants, Hot Mixing Plants, and Asphalt Mixing Plants are well established and are in working condition/ operation under "Consent to Operate" (CTO)/ "Consent to Establishment" (CTE) System.	: Satisfactory Working Condition and Need to Improve Further;
9.	The monitoring and testing results at all location of the project roads were found to be under the permissible limits as per CPCB/ NAAQM/ MPSPCB Standard Guidelines and Norms.	: Initial Results Found Satisfactory;
10.	Technically according to my suggestions as well as supervision/ site visit point of views... as contractors are fully aware with the Guidelines of IRC: Standard Codes would make contractor/ concessionaire consistently a great advantage for getting rewards as well as most precious achievement through "Construction Industry Development Council" (CIDC) and "Engineering Council of India" (ECI) New Delhi had already been awarded to Solapur and Bijapur Road under my supervision/ guidance/ observations/ measurements of Four Laning "Solapur to Vijayapura" (SEAR) of NH - 13 (New NH - No. 52) from 00.000 Km to 110.542 Km (@ Design Length 109.08 Km) in the "State of Maharashtra & Karnataka" under NHAI. Best Construction Awarded by {"CONSTRUCTION INDUSTRY DEVELOPMENT COUNCIL" (CIDC)} VISHWAKARMA AWARD ON 8 th , APRIL 2022 @ NEW DELHI) And completed with EIA/ EAR/ EMP/ EMoP/ Environmental Audit Report Work and had Submitted to NHAI (PIU) Solapur.	: Technically Aware with Guidelines of IRC: Standard Codes;
11.	The Approach in Developing "Environmental Management Plan" (EMP) Active Part of EMP is EMP implementation and execution program as per IRC: Guidance Notes for Site Inspection. The foremost documents the "Environmental Management Plan" (EMP) developed during the "Environmental Impact Assessment" (EIA) studies conducted	"Environmental Management Plan" (EMP) Mechanism;



	<p>for road construction and upgrading in the <u>“Consultancy Services for Authority’s Engineer for Supervision of Independent Engineer Services for Construction of Four Lining of Nanasa to Pidgaon Section of NH – 47 (Old NH – 59A) (Indore – Harda, Pkg – III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} under Bharatmala Pariyojana Phase – I (Economic Corridor) in the State of Madhya Pradesh on “Hybrid Annuity Mode” (HAM). Package – III (Total Length 47.445 Kms).</u> The “Environmental Management Plan” (EMP) plan is developed based on the baseline studies, impact assessment, and impact evaluation and complying with “MPSEPA” (Madhya Pradesh State Environmental Public Authority) Guidelines and Standards. This gives a framework for developing EMP and the components that should be included in the plan. The main components of EMP are: <u>(i) Mitigation Program (ii) Monitoring Program (iii) Recommendations and (iv) EMP Implementation Program. The EMP should consist of cost estimates for monitoring program, equipment procurement, manpower, transportation, office cost, studies, reporting, stationeries, etc.</u> EMP Implementation Program consists of “Environmental Supervision Plan” (ESP) which is an important instrument to ensure effective implementation of “Environmental Management Plan” (EMP). In this study the recommendations that are suggested are specific to the project and geographical conditions in the State of Madhya Pradesh. The vital the developed EMP addresses the environmental impacts during the design, construction and operational phases of the project. EMP outlines the key environmental management and safeguards that will be initiated by the project proponent to manage the project’s key environmental concerns. “Environmental Management Plan” (EMP) is the mechanism to ensure that environmental considerations are integrated into the project survey and design, contract documents and project supervision and monitoring. These are tools for mitigating or offsetting the potential adverse environmental impacts resulting from various activities of the project. The EMP prepared consists mainly of mitigation measure, monitoring plan and recommendations. The recommendations that are suggested are specific to the project and geographical conditions in the State of Madhya Pradesh. The vital section of EMP is the “Environmental Management Plan” (EMP) as well as “Environmental Audit Report” (EAR) implementation and execution program. The EMP should consist of cost estimates for monitoring program, equipment procurement, manpower, transportation, office cost, studies, reporting etc.</p> <p><u>Keywords: Environmental Impact Assessment (EIA), Emergency Response Plan (ERP), Environment, Health and Safety (EHS) Programs etc.</u></p>	
<p>12.</p>	<p>Theoretically As Already Everyone Knows About Our Eminent Scientist Albert Einstein's Formula....!!!</p> <p style="text-align: center;">$e.g., E = M \times C^2$</p> <p>Indeed, Seriously in Forthcoming Days... A Day will Come... When All Together... We will have to Follow and Initiate the Newly Constructed Approachable/ Certainly Applicable Modified Formula....!!!</p> <p>Which would Mostly be Concerned and Related to Our Preciously– Heavenly – Sustainable Environment “The Living Paradise The Planet Earth” and its Surrounding Natural Eco – Friendly Environmental Kingdom is depicted below as:</p> <p>Environment = Materials (In Terms of Non – Recycled Hazardous/ Polluted Wastes) × Climate Change (In Terms of Green House Effect, Global Warming Causing Generation of More Deadly Bacteria’s as well as Dangerous Viruses Such as COVID– 19 VS Monkey Pox, Ebola etc. And Increasing Abruptly Unlamented/ Unprecedented Temperature Rise Day by Day).</p>	<p>Suggested Most Burning Topic on “Environmental Mechanism”;</p>

Thanks a lot for all team champions for their endless cooperation and efforts with regards once again.



Sincerely Yours,

(Dr. Harish Kumar Gupta),
Environmental Expert/ Specialist/ Engineer,
Highway Engineering Consultant,
Mobile Contact and WhatsApp Number: 9329213257;

Annexure - I: Photographs of Preliminary Basis Interpretations about Environmental Compliance Survey/ Observations/ Remarks with as Mandatory need requirement for Entirely Testing Certificates (Land, Air, Water, Soil and Waste Management etc.) for Supervision of Consultancy Services for Authority's Engineer for Supervision of Independent Engineer Services for Construction of Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} under Bharatmala Pariyojana Phase - I (Economic Corridor) in the State of Madhya Pradesh on "Hybrid Annuity Mode" (HAM). Package - III (Total Length 47.445 Kms).



Trajectories of Vertical Pillars Structure Construction Work is Ongoing along Narmada River Side @ Low Flood Level (LFL) Zone...!!! @ Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} @ Projected Site/ Location Chainage.



Pollution Free Environment Appreciated...!!! Nearby Inhabited Site Area/ Location... Not Spreading and Degrading Any Kind of "Air Quality Index" (AQI) Trough Waste Materials; Garbage; and Soil Dust Emissions etc.



An Imprints of Vertical Pillars Structure Construction Work is Ongoing along Narmada River Side @ Low Flood Level (LFL) Zone...!!! @ Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} @ Projected Site/ Location Chainage.



An Impression of Practicable Rationalisation of Road Construction Work is Ongoing...!!! @ Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} @ Projected Site/ Location Chainage.



An Overview of Feasible and Justification of Road Construction is Ongoing... Categorically Outstanding/ Esteem - Inspiring...!!! Workers' Desperate for Construction @ Work Projected Site/ Location Chainage.



Consultancy Services for Project Development of Consultancy Services for Authority's Engineer for Supervision of Independent Engineer Services for Construction of Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} under Bharatmala Pariyojana Phase - I (Economic Corridor) in the State of Madhya Pradesh on "Hybrid Annuity Mode" (HAM). Package - III (Total Length 47.445 Kms).

[Environmental Engineering as well as Audit Aspects and Prospects with Brief Summarys per Few Quoted Suggestions/ Opinions/Thoughts and More... Please Just Have a Look Once...!!!](#)



Conceivable Duty and Rationalization of Road and Categorically Outstanding/ Admiration – Inspiring...!!! Workers' Frantic for Construction @ Work Projected Site/ Location Chainage.



Material Valuation and Validation of Road and Overwhelmingly Wonderful/ Awe – Inspirational...!!! Workers' Agitated for Construction @ Work Projected Site/ Location Chainage.



Corporeal Inspection and Validation of Road and Unquestionably Fabulous/ Marvelous...!!! Workers' Excited for Construction @ Work Projected Site/ Location Chainage.



Physical Survey and Authentication of Road and Indeed Fabulous/ Marvelous...!!! Workers' Dedicated for Construction @ Work Projected Site/ Location Chainage.



Physical Survey and Authentication of Road and Construction Crusher Mixing Concrete Mixture @ Construction Work Site/ Location Chainage Preforming ADANI GROUP @ Projected Site.



Crusher Mixing Concrete Mixture @ Construction Work Site/ Location Chainage Preforming ADANI GROUP @ Projected Site Locality.



SHREE JI...!!! Infrastructure India Private Limited Laboratory Setup for Testing; Measurements; and Analysis of Materials' Strength as well as Weakness like Rigidity and Tensile Strength of Resources while used in Construction along Roads' Network in the Projected Area/ Place/ Location.



SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! Setup for Testing; Measurements; and Analysis of Materials' Strength as well as Weakness like Rigidity and Tensile Strength of Resources with Gradation Testing of CTSB Mix...!!! While used in Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.



SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! Setup for Testing; Measurements; and Analysis of Materials' Strength as well as Weakness like Stressing of PSC Girder @ Chainage Number 110 + 500 MNB...!!! While used in Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.



SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! AIL Laying in Progress @ Chainage Number 116 + 450 Km to 116 + 750 Km LHS and DBM Laying/ Rolling @ Chainage Number 112 + 300 Km to 112 + 800 Km Setup for Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.



SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! AIL Laying in Progress @ Chainage Number 136 + 800 Km to 137 + 360 Km RHS and 200 KVA Transformer Shifting Work Completed with Charger @ Chainage Number 115 + 440 Km near Lela Restaurant Setup for Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.



SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! Preparation of Foundation and Pier Casting of P - 17 and P - 12 in Progress @ Chainage for Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.



Consultancy Services for Project Development of Consultancy Services for Authority's Engineer for Supervision of Independent Engineer Services for Construction of Four Laning of Nanasa to Pidgaon Section of NH - 47 (Old NH - 59A) (Indore - Harda, Pkg - III) @ Design Chainage 95 + 000 Km to 142 + 445 Km {Total Designed Length of the Road is = 47.445 Km} under Bharatmala Pariyojana Phase - I (Economic Corridor) in the State of Madhya Pradesh on "Hybrid Annuity Mode" (HAM). Package - III (Total Length 47.445 Kms).

[Environmental Engineering as well as Audit Aspects and Prospects with Brief Summary as per Few Quoted Suggestions/ Opinions/Thoughts and More... Please Just Have a Look Once...!!!](#)




SHREE JI AND ADANI GROUP...!!! Infrastructure India Private Limited Laboratory...!!! Casting of P11 RHS Open Foundation @ Narmada Bridge in Progress @ Chainage for Construction along Roads' Network in the Projected Area/ Place/ Camp Site Location.





SAVE/ PRESERVE/ CONSERVE FANTASTIC AND ECCENTRIC SHAPES' OF "Heavenly Paradise Precious Planet Earths' NATURAL ECOSYSTEM AND ATMOSPHERIC ENVIRONMENT" ...!!!



1. Annexure - XVI: An Optional, Mandatory...!!! All Over India Suggested and Proposed Small Sewage Treatment Plant @ HARDA (Madhya Pradesh State):
"Installation of Small Sewage Treatment Plan under Environment Mitigation Measures" Measures for Nagpur/ Amravati/ Washim/ Aurangabad/ Nashik/ Mumbai under MSRDC/ NMSCEL (Nodal) Director. Mandatory Reference Official Order Issued on Dated: 20/ 10/ 2022 for other/ Regions/ Places/ States too Like Urban Heat Mitigation Strategies, Technologies in Terms of Cooling Cities Strategies...!!! to Mitigate Urban Heat as an Example Portrayed in the



नागपुर मुंबई सुपर कम्युनिकेशन
एक्सप्रेसवे लिमिटेड
(विशेष उद्देश वाहन)



हि.इ.वा.उ.म.स.म. म.रा.र.वि.म.
(महाराष्ट्र वाहतूक विकास)

No. MSRDC/NMSCEW/2022/ 2174
Date: 20 OCT 2022

To,
The Project Director,
Nagpur/Amravati/Washim/Aurangabad/Nashik/ Mumbai
NMSCEL

Subject: Construction of Access Controlled Nagpur Mumbai Super Communication Expressway "Hindu Hrudaysamrat Balasaheb Thackeray Maharashtra Samruddhi Mahamarg" on EPC mode in Construction Package no. CP-01 to CP-16 in the State of Maharashtra

Regarding: - Installation of small sewage treatment plant under environment mitigation measures.

Reference:-

- Office note dated 21.09.2022

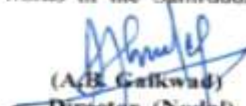
The Construction of Access Controlled Nagpur-Mumbai Super Communication Expressway (Maharashtra Samruddhi Mahamarg) is in progress through EPC contractors in packages 1 to 16.

As per clause 3.9.3 of CA, & IRC-SP-99, Clause No. 1.15 & 14.2 the Contractor is required to take necessary preventive measures to avoid environmental damage.

The toll plaza complex & all building works are the part of the development of the Samruddhi Mahamarg and the sewage of these buildings is likely to cause pollution to the ground water.

It is the obligation of the EPC contractor to carry out various parameter for mitigation of adverse environment impact. (Clause No. - 3.9.3, Vo-II of CA & IRC-SP-99, Clause 1.15& 14.2).

Accordingly, all Project Director are instructed to give directives to EPC Contractor to install small sewage treatment plant as per requirement of the toll plaza complex, police station buildings and all other building works in the Samruddhi Mahamarg as per the Contract agreement.



(A.B. Galkwad)
Director, (Nodal)
NMSCEL

सीआयएन: U45309MH201756G295599
जीएसटी: 27AAFCN6530N122

नोंदणीकृत कार्यालय: गणपती रोड,
सिवायलंगी चार्ज जवळ, मुंबई - ४०००३६

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दूरध्वनी: (+९१) २२६९ ८२११ / १६०१
फॅक्स: (+९१) २२६८ ९४४३

कॉर्पोरेट कार्यालय: वाढे देवळगेवा
डेपोझरी, शिवायली इन्फ्रस्ट्रक्चर्स,
के.सी. मार्ग, वाढे (ए), मुंबई - ४०००६४

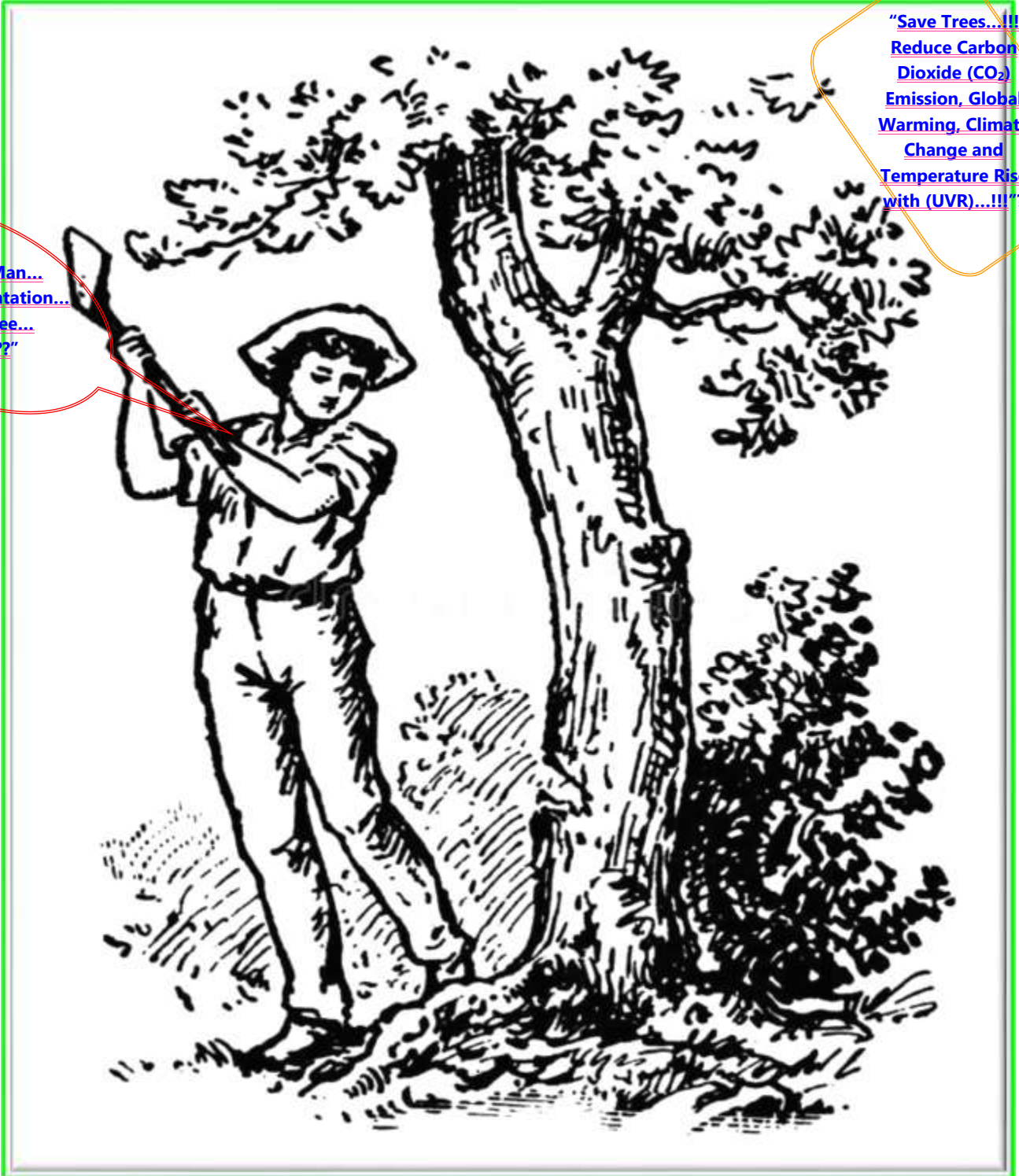
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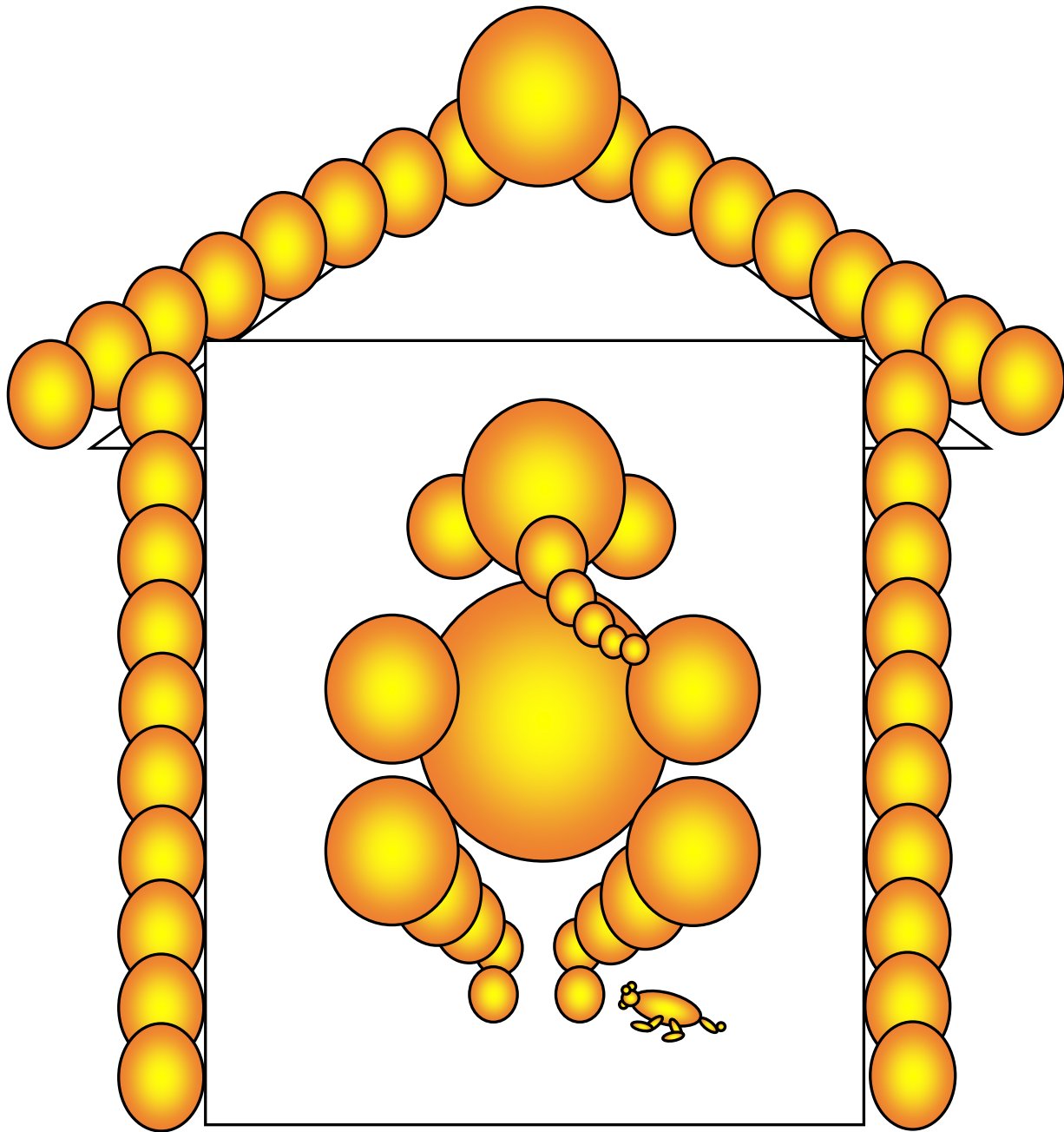
क्या यह दोगलापन नहीं है कि इंसान पहले पेड़ काटता है और उसका पेपर बनाता है फिर उसी पेपर पर लिखता है कि "Save Trees...!!! Reduce Carbon Dioxide (CO₂) Emission, Global Warming, Climate Change and Temperature Rise (UVR)...!!!"?

**उउउ* इंसान जो करता है, उसे करने दो। उसकी बुराई मत करो। *उउउ* इंसान सब कुछ सुन सकता है। लेकिन अपनी बुराई नहीं सुन सकता। चाहे दोगलेपन वाली हो या अकेलेपन वाली। *उउउ* वैसे इस दिशा में अभी तक तुम्हारा क्या योगदान रहा है? *उउउ* तुमने कितने पेड़ लगाए हैं अभी तक...?? *उउउ* शायद एक भी नहीं न...?? चलिए अब लगा दो एक।
Image...!!!



**"Oh No... Man...
Instead of Plantation...
Cutting Tree...
WHY...???"**

**"Save Trees...!!!
Reduce Carbon
Dioxide (CO₂)
Emission, Global
Warming, Climate
Change and
Temperature Rise
with (UVR)...!!!"**




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