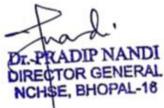
ANNUAL REPORT 2023-24







National Centre for Human Settlements and Environment E-5/A, Girish Kunj, Arera Colony, Bhopal- 462016 Website:www.nchse.org

1. Organisation:

National Centre for Human Settlements and Environment (NCHSE), a non for profit organisation, having its registered office at Bhopal, was established in 1984 by Late Dr. M N Buch after his voluntary retirement from IAS. Founder members of the organisation included retired bureaucrats and subject matter specialist, in the field of Natural Resources Management, Forestry, Planning & Architecture, Economics, social science etc.

2. Legal Status:

A society, registered under M. P. Societies Registration Act, 1973, Registration No.13784, dated 19th June, 1984.

80 G & 12 A – NCHSE is registered with the Income Tax Department as a Trust/Society under Section 12 A (a) and exempted under Section 80-G (5)(vi) regarding donations made to the Centre.

PAN: AAATN2922N

TAN: BPLN00396E

GST No.: GSTN-23AAATN2922N1ZK

FCRA Registration Number: 063160035

Registration in NGO Portal: MP/2009/0016765

Registration with Ministry of Corporate Affairs, GOI: CSR00000776

3. Thematic Areas of working:

NCHSE is pursuing environmentally compatible and locally acceptable nature based development models, which are being achieved through initiatives, like -

- Participatory Rural Appraisal of natural resources, vulnerability and local knowledge;
- Integrated watershed development vis a vis integrated village development programme,
- Eco-restoration of degraded ecosystem and biodiversity conservation,
- Conservation and management of common natural resources with community participation;
- Promotion of Sustainable/Climate Resilient Agricultural Practices
 - > through linking the village community with ongoing Government schemes to make the programme sustainable,
 - Capacity building and skilling of local farmers/youth/women through selection of educated local youth and grooming them as Super or Master Trainers
- Empowerment of rural women through financial literacy programme to enable them to undertake income generating activities.
- Capacity building of youth including in service personnel on GIS application
- Consumer Protection through public awareness and counselling

4. Change of approach – From Watershed development to climate smart agricultural practices and empowerment of marginalised community and women:

NCHSE has brought more than two million ha area in Madhya Pradesh and Rajasthan under its flagship programme of Integrated Watershed Development, initiated in the year 1994 in Ranapur block of Jhabua district, leveraging resources from Government and several National and International organizations, for water centric development at watershed level leading to transformation of villages with respect to agricultural activity and livelihood of people. However, in recent years there is gradual shift of approach of development from watershed approach to area specific approach with focus on to maximise agricultural production through wise use of water available at the storage facilities created under the RGM as well as promoting climate resilient agricultural practices. There is also shift in source of funding as well. Now development initiatives being implemented by NCHSE are supported mainly through CSR initiatives of corporate sector. NCHSE no longer directly serve as the official partner of Government initiatives.

In the urban landscape, NCHSE is advocating carrying capacity based urban development, improving urban basic services, protection of green cover and protection of wetlands and other water bodies.



Programme Implementation







5. Programme Implementation in 2023-24:

Following Projects are being implemented:

- 1. Promotion of climate smart practices in villages of Sehore, Dewas and Vidisha Districts of Madhya Pradesh
- 2. Promotion for Small and Marginal farmers through Farmer Field School Model in Kota District, Rajasthan
- 3. Transformation of Agriculture Sector of Aspirational Districts (Vidisha & Damoh) in Madhya Pradesh
- 4. Financial Literacy & Capacity Building Programme in 52 Districts of Madhya Pradesh

Various climate models project an increase in the frequency, intensity and area under drought conditions in India in coming decades, which warrants strengthening knowledge on vulnerability to climate impacts and enhancing the understanding at the grass root level about the changes required to build resilience to climate impacts. In view of the emerging situation, the Promotion of Climate Smart Practices programme being implemented in clusters of villages of Sehore, Dewas and Vidisha Districts of Madhya Pradesh and in Kota District of Rajasthan.

Following interventions are being undertaken to improve the livelihood of the people as well as for environmental conservation through Climate Smart village concept:

- i. Water and soil conservation measures, including integrated water management;
- ii. Introduction of technology for improving soil moisture content as well as improved agricultural practices;
- iii. Capacity building of farmers & personnel of Govt. departments to ensure implementation of CSPA, operation and maintenance of the systems as well as environmental sustainability.
- iv. Providing livelihood opportunities for the poor, especially small and marginal farmers and women.

5.1. Soil & Water conservation - Madhya Pradesh:

- The land treatment (farm bunding & LBS at specific locations) in 1640.33 ha area enabled control of soil erosion and improving soil moisture content
- Water Conservation initiatives in the project districts taken during 2023-24 are presented below.

S. No.	Districts	Type of Structure	Total water storage capacity (Cum.)	Irrigated Area (In Ha.)	
1.	Sehore & Bhopal	Stop Dam, Earthen Dam and Farm Pond	3,25,403	278.00	
2.	Vidisha	Stop Dam, Earthen Dam and Farm Pond	38,358	91.92	
3.	Dewas	Stop Dam and Farm Pond	31,424	101.00	
	Total		395,185	470.92	

- About 470 ha area brought under irrigation leading to ground water recharge as well as reduced extraction of ground water.
- Rejuvenation of Irrigation Tank at Molga village in Sehore District was undertaken during 2023-24. It was originally constructed before independence. It required repair. Moreover, the height of the bund was low, resulting in considerable spill over during rains flooding the village settlements and crop fields. Height of the bund was increased using the excavated boulders and soil from dried tank bed during summer. Water storage capacity of the tank was increased by 86,000 cum. Present storage capacity is 232,500 cum. Now 75% of the crop land of the village will be irrigated from this tank through rejuvenated canal system.



- Adoption of water and soil conservation measures, including integrated water management practices enabled higher availability of water for irrigation during the dry/Rabi season;
- Leveraging of support from government schemes enabled 5 farmers to adopt sprinklers to improve water use efficiency.

5.2 Soil & Water conservation - Rajasthan:

- Earthen Farm Bunding/ treatment of 122 ha. of land completed benefitting 34 families.
- The works of 4 Irrigation Tanks, 7 Check Dams, and 31 Farm Ponds were completed, benefitting 87 families, of which one-third belongs to SC and St Categories.

S. No.	Activity	Area	Beneficiary HH (Nos.)				
		(ha)	sc	ST	Others	Total	
1	Irrigation Tank	33.30	6	5	10	21	
2	Stop Dam	61.67	4	2	29	35	
3	Farm Pond	55.36	3	6	22	31	
	Total	150.33	13	13	61	87	



5.3 Climate Smart Agricultural Practices - Madhya Pradesh:

Farmers adopted climate resilient agricultural practices in 59,862 ha area, which facilitated efficient use of water and fertiliser for increasing agricultural productivity as well as reduction of GHG emission due lesser use of fertilisers. Appropriate technologies like BBF, DSR, Zero tillage etc. were promoted to combat vagaries of nature. Outcome of such activities undertaken during 2023-24 are summarized below:

Particulars	Achievements
Climate Smart Village (Wheat development programme, Seed	59,862 Ha
treatment, Germination test, Sowing method, Crop Insurance etc.)	
FFS/Demo plots - Rabi & Kharif	9610 Ha
BBF Soybean Plot	9610 Ha
PBBF Wheat Plot	1646 Ha
DSR Paddy Plot	421 Ha
Zero Tillage (Wheat)	18 Ha

5.4 Climate Smart Agricultural Practices - Rajasthan:

- Climate Smart Agriculture practices was adopted in 41,881 ha area in Rabi season benefitting 10,471 farmers including SC & ST categories.
- Broad Bed furrow technique for sowing soybean in Kharif was adopted by 1,819 farmers covering 14,517 ha.
- 2,942 farmers adopted DSR method of rice cultivation in 8,398 ha.
- 794 farmers adopted Zero Tillage method of sowing wheat covering an area of 2,817 ha.
- Promoted horticulture plantation in 44 ha. area benefitting 37 farmers.
- 113 farmers adopted PBBF technique in 380 ha.
- 25732 ha area covered under water demand management.
- Facilitated construction of new technology based 161 Vermi compost units through convergence with government scheme
- 310 Nutritional Gardens were developed to improve access to green vegetables and prevent malnutrition among poor families.
- 75 Pashu sakhi Cadre developed for providing primary health service for small and large ruminants.
- Facilitated linking of farmers to various governments schemes as given below:

S.No.	Particulars	UoM	Achievement
1	Farmers having soil health card	No	1,208
2	Farmers having PM KISAN	No	742
3	Farmers having Kisan Credit Card	No	402
4	Farmers having Crop Insurance	No	3,672
5	Farmers having Pension scheme	No	209
6	Farmers selling produce through E- NAM/other institutional channel	No	4,833

5.5 Reduction of GHG Emission from Climate smart activities:

The preliminary assessment of GHG emission reduction through climate smart agricultural practices as presented below is quite encouraging.

State	Activity	Fertilizer	Unit	Savings Kg per Ha.	Land Area (Ha)	Co2 eq. per Kg.	Total t Co2 eq. per annum
Madhya	Reduction of	Urea	Kg.	60	9,610	11.19	6,452.15
Pradesh	Fertilizer Use	Potash	Kg.	2	9,610	0.43	8.26
		TSP	Kg.	10	9,610	0.56	53.82
	Saving of Fuel	Diesel	Ltr.	6	439	2.68	7.06
	Sub -Total						6,521.29
	Reduction of	Urea	Kg.	60	41,881	11.19	28118.90
Rajasthan	Fertilizer Use	Potash	Kg.	2	41,881	0.43	36.02
		TSP	Kg.	10	41,881	0.56	234.53
	Saving of Fuel	Diesel	Ltr.	6	2,817	2.68	45.30
	Sub. Total						28434.75
	Total						34956.04

6. Transformation of Agricultural Sector in Aspirational Districts (Vidisha & Damoh) of Madhya Pradesh:

This Programme being implemented in two districts (Vidisha and Damoh) of Madhya Pradesh since 2018-19 with the objectives of facilitating enhancement of incomes of rural households through reduction in costs of production and increasing productivity of major crops in each district through capacity building of stakeholders, demonstration of new and appropriate technologies for farm production through Farmer's Field School (FFS) model and convergence of Government schemes to make agriculture sustainable.

This was the year of consolidation and preparing the target village community to take lead themselves to carry on with the development achievement so far with multispectral support. The year saw internalization of cascade training of farmers; piloting and replication of successful interventions and consolidation in districts for developing Model villages. The achievement is summarized below:

- Master training program were conducted for capacity building of agriculture department on both season Kharif and Rabi on crop POP modules.
- Conduced Farmer training programs on crop Pop modules roll out in Kharif and Rabi Season at Gram Panchayat levels.
- Prepared District action plan for Pradhan Mantri Fasal Bima Yojana with Agriculture department.
- Enhancing farmer's enrolment with Pradhan Mantri Krishi Sichayee Yojana (PMKSY) for increasing percentage area under micro-irrigation.
- Preparing and submission of Krishi Mandi proposal for e-NAAM registrations-1831 farmers benefited
- Soil samples 1680 in Damoh and 980 in Vidisha district were collected and the soil health cards were distributed among the farmers in convergence of Animal Husbandry department.
- Provided seed of Paddy, Black gram, Wheat and Gram to 1485 farmers in Damoh district and 3175 farmers in Vidisha District through convergence of different agricultural schemes.
- Got direct covered 16739 animal vaccinated and 1227 AI done though convergence of animal husbandry departments.

7. Conservation of Biodiversity:

Plantation of local tree species on farmer's field and on community land are being done each year with community participation for the conservation of biodiversity in the area. During 2023-24, >18000 saplings planted in 421 Ha area, details of the same is presented below:

District	Number of	Saplings	Area covered (Ha)		
	Species #	planted (Number) (2023-24)	2023-24	2017-24	
Sehore & Bhopal	14	6,500	217.00	886.00	
Vidisha	20	5,000	41.75	158.75	
Dewas	10	6,750	162.25	162.25	
Total	26	18,250	421.00	1207 .00	

Bamboo, Sagon (Tectona Grandis), Jamun (Szygium cumini), Imli (Tamarindus indica), Aanla (Phyllanthus emblica), Karanj (Millettia pinnata), Sisham (Dalbergia sissoo), Neem (Azadiracta indica), Pipal (Ficus religiosa), Bargad (Ficus benghalensis), Kadamb (Neolamarckia cadamba), Saptaparni

(Alstonia scholaris), Jungle jalebi (Pithecellobium dulce), Aam (Mangifera indica), Amrud (Psidium guava), Sitaphal (Annona reticulata), Bel (Aegle marmelos), Nimbu (Citrus limon), Munga (Moringa oleifera), Gulmohar (Delonix regia), Chirole (Holoptelea integrifolia), Khair (Acacia catechu), Kabit (Limonia acidissima), Karonda (Carissa carandas)]



8. Financial Literacy and Capacity Building Programme in Madhya Pradesh:

NCHSE with support from ITC Limited and Madhya Pradesh State Rural Livelihoods Mission (MPSRLM) initiated a dedicated "Financial Literacy Programme" in 2017-18, which now covers all Districts of Madhya Pradesh.

The objective of this partnership is to strengthen the implementation capability of the MPSRLM through technical assistance from ITC and implementation support from NCHSE. The key principle behind this arrangement is to create an 'enabling environment' for sustaining good financial habits and practices within women SHGs and enhance the capability of human resource mainly the CRPs (Community Resource Persons). All the new, revived and pre NRLM SHGs which are currently under MPSRLM are being covered under this programme.

During the financial year 2023-24, the program was implemented in the 52

districts. So far 26.94.408 SHG members of 2,77,630 new SHGs have been trained by the pool of FLCRP of 8917 and refresher training was also provided to the members of 16,899 SHGs and they have been able to reach 24,529

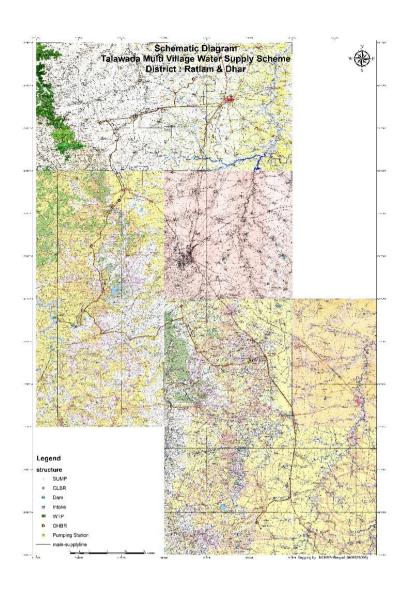


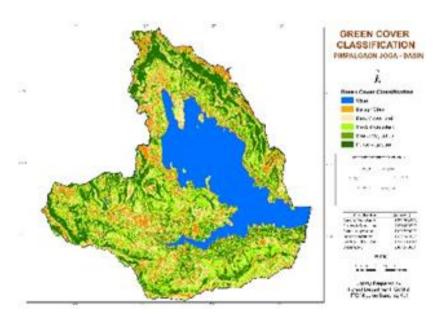
villages in 313 blocks of 52 districts.

Yojna Sakhi programme-

This is a natural extension of the FL programme and is being implemented in all 52 districts of Madhya Pradesh to train and support selected SHG members to become Yojana Sakhi (YS) on the use of Haqdarshak Agent App to enable them to provide scheme related support with the aim of achieving sustainable income. By the financial year 2022-23, 3048 Yojana Sakhis were created in 26 districts of Madhya Pradesh and in this financial year (2023-2024), 1520 Yojana Sakhis were created in the remaining 26 districts (Alirajpur, Barwani, Betul, Bhind, Bhopal, Burhanpur, Dindori, Harda, Indore, Jabalpur, Katni, Khandwa, Khargone, Mandla, Mandsaur, Neemuch, Niwari, Nursinghpur, Ratlam, Sagar, Seoni, Shajapur, Sheopur, Tikamgarh, Ujjain and Umaria) of Madhya Pradesh. Till now 4550 young women have been trained out of which 2483 active young women are providing services door to door or from their home and earning an average of Rs 3966 per month.

GIS Application

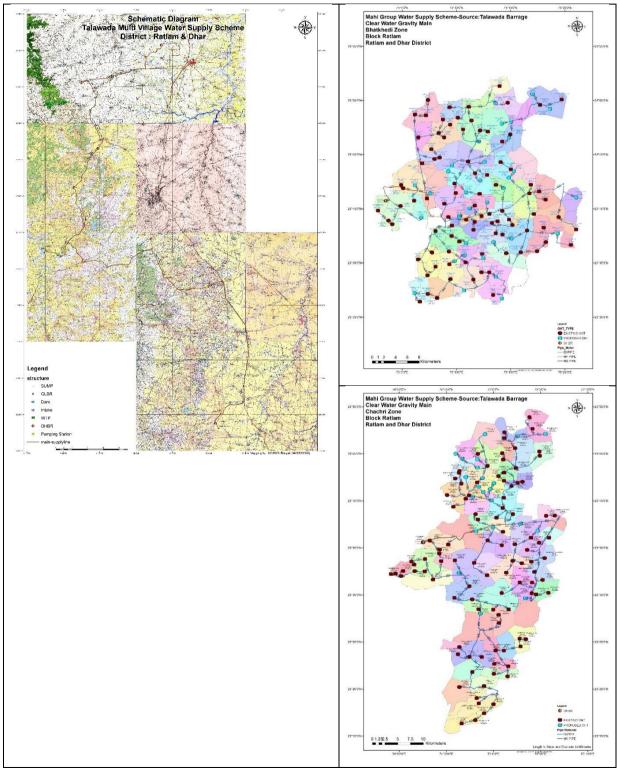


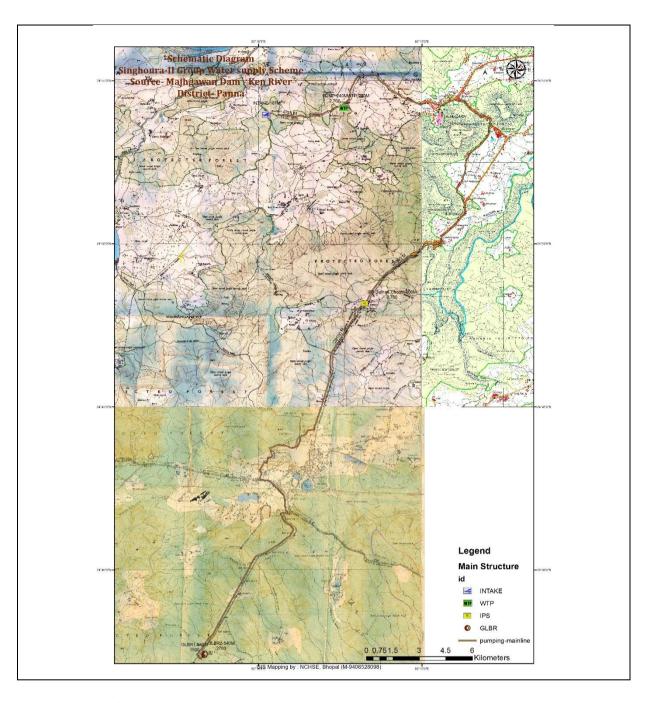


9. GIS Application

9.1 Planning Rural Water Supply in Madhya Pradesh:

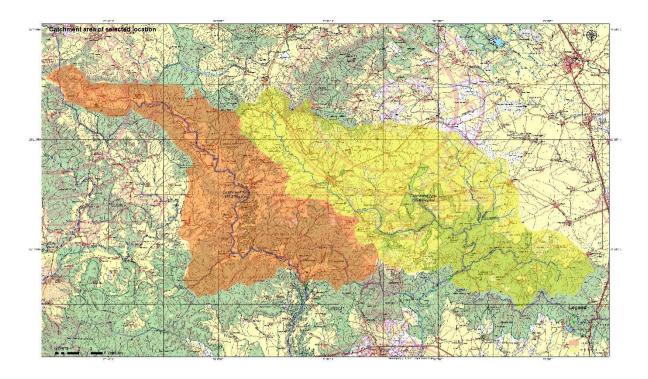
NCHSE provided technical support and services to WatsanCAD Solution, Bhopal (Technical agency of Madhya Pradesh/Chhattisgarh in planning of multi village rural drinking water supply). The Topo-sheets and high resolution satellite imageries as available from Google Earth were used for developing maps for planning of real time multi village drinking water supply of Mahi Project of District Ratlam, Dhar and Singhoura-II project of Panna District of Madhya Pradesh.

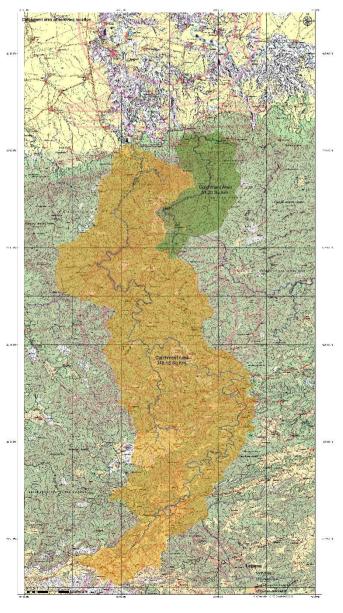




9.2 GIS Application Support to Irrigation Department.

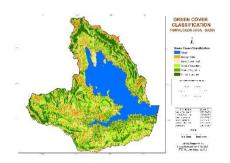
A GIS Mapping work was done for Rani Avanti Bai Lodhi Sagar Canal Division, Narsinghpur includes digitization of Rivers, supporting rivers/nala and Catchment area of selected location on Biranj Nadi, Sindhor nadi, chitrewa river and sukha Nala. Another work was GIS Map preparation of Land acquisition of Padam and Andiya village.

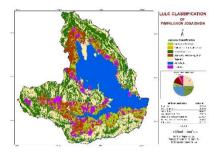




9.3 Preparation of Green cover, LULC and Slope analysis through Remote sensing data of District Pune, Maharashtra:

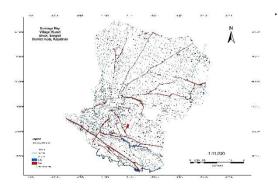
The NCHSE has conducted an in-depth land use and land cover (LULC) classification of the Dimbhe, Pimpalgaon Joga, Wadaj, and Yadgaon basin areas of Pune district, Maharashtra, using Sentinel-2A remote sensing data. This analysis focused on identifying various LULC categories, with a particular emphasis on detecting and classifying green cover, such as agricultural fields, forests, and grasslands. Slope analysis was also performed to understand the terrain characteristics, aiding in the interpretation of vegetation distribution and land stability. The Normalized Difference Vegetation Index (NDVI) was applied to effectively classify vegetation health and density, providing key insights into the extent of green cover. This comprehensive study supports sustainable land management and planning efforts in the region, helping identify potential areas for conservation and development. This work has been completed for DSC Pune.

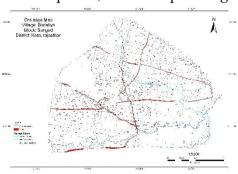




9.4 Preparation of village wise base map of Kota Project area:

The NCHSE has successfully prepared a GIS-based village-wise base map for 60 villages across the Sangod, Digod, and Ladpura blocks of Kota district of Rajasthan. This project involved collecting and integrating spatial data to create accurate and detailed base maps for each village, capturing essential features such as village boundaries, roads, water bodies, and land parcel. The use of GIS technology enabled precise mapping and analysis, providing a valuable tool for local governance, planning, and resource management. These base maps serve as a foundation for future development initiatives, helping decision-makers in land allocation, infrastructure development, and rural planning.





9.5 GIS Training:

NCHSE regularly conducts 45 days long training programme on GIS Application & maps Operations. The objective of the programme is to enable the participants to apply GIS techniques in many different ways to project planning, implementation, monitoring and impact assessment. During the year 45 persons were trained through 4 training programme.

Awareness & Advocacy Programme:





10 Awareness & Advocacy:

10.1 Cyclothon at Bhopal during United Nations Road Safety Week 2023:

A Cyclothon event highlighting the theme "Rethink mobility with focus on pedestrian safety (#streetforlife)" was organised in Bhopal on 20th May 2023, as a part of United Nations Road Safety Week (15 to 21 May, 2023).



The aim of the Cyclothon was to promote a sustainable transport system, particularly for pedestrians, cyclists, and children. Over 100 cyclists, mostly school students and some citizens, participated in the rally. The Cyclothon, flagged off by Shri Sushil Kumar, ACP from the premises of Ankur School (6 No stop) concluded at NCHSE premises. Before that he addressed the participants and gave tips on road safety. On conclusion of the Cyclothon, the participants signed a memorandum addressed to the Principal Secretary, Home, requesting him for development of a sustainable transport system in Madhya Pradesh, specifically for pedestrians, cyclists, senior citizens, and students. The Memorandum was later submitted to the Principal Secretary, Home, Government of Madhya Pradesh and a copy of the same to the Transport Commissioner, Madhya Pradesh.

10.2 World Day of Remembrance for Road Traffic Victims:



A road walk followed by human chain formation was organised on November, 2023 to mark the "World Day of Remembrance for Road Traffic victims" and to encourage vehicle drivers to follow traffic rules to avoid accidents and causalities on roads. At Ankur Higher Secondary School, Traffic Shri Police officer Narendra addressed Chaudhary the

students, their parents and teachers and advised them to follow traffic rules. Thereafter, students holding play cards having road safety messages walked along the footpath of Link Road Number 1 towards TT Nagar main road and then formed a human chain extending from trisection at TT Nagar towards mata mandir. This programme is also become significant as this programme is being organisied during the month long state wide special drive by the Madhya Pradesh Police to ensure use of helmets



by the two-wheel driver and seat belt by 4 wheel drivers. During the event pamphlets and road safety signage charts were distributed to the participants and the vehicle drivers. Police stopped the vehicle drivers without helmets and informed them about the safety rules.

10.3 Workshop on Rising Burden of NCDs & Prevention and Care of Hypertension was organised on 28th June 2023 in Bhopal.

Hypertension is considered one of the major cause of premature death in India. Although easy to treat, if left uncontrolled and untreated, it can lead to heart attack and stroke, chronic kidney disease etc. It is estimated that one in every four adults in India has hypertension and the situation is no different in Madhya Pradesh, where about 22.5% female and 25.9% male suffer due to HTN as against the national figure of 21.3% and 24% respectively. Uncontrolled blood pressure is one of the main risk factors for cardiovascular diseases (CVDs) such as heart attacks and stroke, and are responsible for one-third of total deaths in India. Despite that only 7% women and 6% men who have hypertension take medicine in India. With this in view the Workshop on the rising burden of NCDs & prevention and care of Hypertension organized jointly by National Centre for Human Settlements & Environment (NCHSE) and Consumer VOICE, New Delhi in Bhopal on 28th June 2023.

The Chief Guest Dr. Prabhakar Tiwari, CMHO, Bhopal while addressing the participants said that people in rural India has the belief that they work hard therefore they can't suffer from hypertension. He said that misconception, this is а hypertension is prevalent equally in urban and rural India and that screening hypertensive individuals crucial to prevent morbidity and



mortality associated with hypertension.

Mr. Ashim Sanyal, COO of Consumer Voice raised concern that the screening of hypertensive individuals was lowest in Madhya Pradesh (61.3 per cent) and that timely intervention can save patients from serious hypertension problems like stroke and organ damage.

Dr Abhishek Goyal, Professor and Head Department of Pulmonary Medicine, AIIMS Bhopal said that obstruction in breathing during sleep is a serious disorder or Obstructive Sleep Apnea (OSA).

Office of CMHO has also arranged a health check-up camp at the venue of the workshop for check of blood pressure and sugar level of participants and others and distributed medicine free of cost.

10.4 State Level Consultation on "Importance of FoPL in Addressing NCDs" (17th August 2023):

The State Level Consultation on "Importance of FoPL in Addressing NCDs" was organized in the Auditorium of Institute of Hotel Management, Bhopal. The objective of the consultation supported by CUTS, Jaipur was to appraise the citizens about the causes of Non-communicable diseases (NCDs), the role of packed processed food causing NCDs and how a proper Front of Package Lables (FoPL) can help the consumer select healthy food. The other major objective was to sensitise and educate the stakeholders within the state on FoPL and thereby create a group of enlightened stakeholders for generating demand for earlier notification of the FoPL regulation in the country.

Dr. Prabhakar Tiwari, CMHO, Bhopal, Dr Varuna Pathak, HoD, Obstetrics Gynaecology, R K Medical College Bhopal, Mr. Devendra Dubey, Sr Food safety

officer, Food & Drugs Administration, GoMP, Mr. Deepak Saxena, Associate Director, **CUTS** International addressed the participants and highlighted the type of food one should take to remain healthy and to protect themselves from



hypertension related complications.

About 200 participants, comprising persons of various age and Occupation-Students, representatives of CBOs, School Teachers, representatives of Food Industry, House wives and senior citizens participated in the programme.

10.5 World Wetland Day 2024: Citizens of Bhopal pledged to protect & conserve Wetlands of the state

A guided Wetland Walk was organised on 28th January 2024 along the northern bank of Upper Lake of Bhopal. The Upper Lake represent major component of Ramsar site, a wetland of international importance, declared in 2002, and an Important Bird Area (IBA) declared in the subsequent year, due to its ecological importance and biodiversity. This important wetland is subjected to various anthropogenic pressure and needs protection. The theme of the event was "Wetlands and human wellbeing" as declared by the Ramsar Convention for World Wetland Day 2024. The objective

of the event was to sensitise citizens of all walks of lives of Bhopal about the importance of Wetlands and to enhance public connection with nature as well as to encourage residents and stakeholders to play a role in the protection and improvement of the unique ecosystem.

During the Walk, participants observed various plants and animal species of the wetland, ecological succession and the indicators of water quality of the lake. Participants also collected plastic wastes to emphasise the need of making the Bhoj wetland, a plastic free zone.

Participants numbering about 100 comprising of faculties and students of premier institutions, various CBOs,



youth and senior citizens of Bhopal and media persons also pledged to undertake necessary actions and join hands with different stakeholders to protect and conserve wetland ecosystems, especially Bhoj Wetland, keep them healthy and to create awareness and motivate others to join hands to protect wetlands.

10.6 Consumer Awareness Programme (CAP) on Telecommunication: Services:



During the year 2023-24, six consumer awareness programmes were organized in rural areas of Dewas, Harda, Shajapur, Sagar, Narsinghpur, Betul districts of Madhya Pradesh to aware the telecom consumer in rural areas about Telecommunication and T.V. services provided by the Telecom Services Providers (TSPs), Cable Operators (T.V.) and to protect their rights is accordance with the guidelines of TRAI issued from time to time. Beside this special focus was given on Unsolicited Commercial Communications (UCC) and Cyber Crimes and how to protect from these through Tools and Apps.

11 Lecture Programme

11.1 7th Mahesh Buch Remembrance Lecture, 6th June 2023:

Shri Richard Mahapatra, Environmentalist & Managing Editor, Down To Earth delivered the 7th Mahesh Buch Remembrance Lecture on "Ecological Poverty in the 21st Century: Why some regions remain poor forever in India" in Bhopal on 6th June 2023. He said that twenty-five percent of people in India are poor earning Rs 37 per day in rural and Rs 47 per day in urban areas. Most of them live in environmentally degraded natural resource rich regions. Until 2019, reduction of number of poor was fastest in India, but the COVID pandemic has undone the gain. The causes of poverty in India is mainly ecological and thus key to reducing poverty lies in halting environmental degradation and management of natural resources wisely. Prof. Dhiraj Kumar, Director, National Institute of Design Bhopal presided the function.



The programme was organized jointly by National Centre for Human Settlements & Environment and Friends of Environment. There were about 150 persons in attendance which comprised academicians, former bureaucrats, students, members of CSOs, and other occupations.

11.2 8th Mahesh Buch Memorial Lecture, 5th October 2023:

The programme was organized at the Jagran Lake City University. Mr. Dunu Roy delivered the Lecture on the topic "Trajectory of Urban Planning". He started with example of expansion of Bhopal city starting from 1955 and till date. He pointed out that the settlement of Bhopal in 1955 covered only a small portion towards the eastern most part of Upper Lake, later started expanding southwards. During 1974-75, Mr. Buch played a key role in the development of first development plan of Bhopal. Mr. Buch raised question whether the city expansion should be at the cost



of agriculture land. The underlining reason - agricultural land gives renewable income year after year whereas the city land gives no return after development.

Mr. Roy analyzed the Bhopal Development Plan 2005 and pointed out that there was no achievement as planned for land use for sub urban centers, transport nagar, industrial area and public- semi-public areas and roads. As against planned road development of 241 kms. actual achievement of 53 kms. He pointed out that while 74 constitutional amendment empower the local body to develop city plans, it has not been implemented so far since the urban local bodies have no expertise this.

Mr. Roy also mentioned about the review of Report of the National Commission on Urbanization by Mr. Buch after several years of its publication, wherein he pointed out that unless the city become productive city cannot be livable for long. He pointed out the present day development of cities are such that there is no provision of footpath or track for cyclists, because planners never thought of undertaking a survey about the number of people using the road for walking or cycling. He pointed out that even a person driving a car have to walk either going up to the car or after parking his/her vehicle at the destination.

Prof. P.K.Biswas in his address advocated for city development plan that is based on the analysis of need of the local people. He also emphasized on mainstreaming slum dwellers.

11.3 Special Lecture by Prof. P. K. Biswas, Vice Chancellor of Jagran Lakecity University, Bhopal

Prof Biswas, while presenting the overview of achievements of the Smart City Mission



in India, said that out of the selected 100 cities, real progress has been achieved in about 28 cities. He appreciated the achievement of Indore city under the Smart City Mission due to successful implementation of projects related to of conservation/restoration heritage building, water supply, sanitation, solid waste management, improving transportation system, etc. He said that citizens' participation is most important in achieving the goal of making the city liveable.

He also spoke about the recently published book titled "Smart Cities in Europe and Asia: Urban Planning and Management for a Sustainable Future edited by him along with Robert Dygas. Elaborating upon the main features of smart cities in Europe and Asian Countries, he said that the concept of smart city is not uniform throughout the globe, it also differs from city to city. He said that city plan sometimes gets detailed due to unforeseen conditions as well. In this respect he presented the example of Warsaw in Poland, which is facing the problem arising due to influx of refugees from Ukraine due to ongoing war between Ukraine and Russia.