ENVIRONMENT-FRIENDLY SUSTAINABLE CONSERVATION & DEVELOPMENT OF RIVER GANGA BASIN THROUGH FARMER PRODUCER ORGANISATION IN UTTAR PRADESH

1.0 Brief Description of the Basin and FPOs linked programmes for it's conservation:

The catchment area of the Ganga lies between east longitudes 73° 30' to 89° 0' and north latitudes 22° 30' to 31° 30' which falls in four countries, namely India, Nepal, Tibet (China) and Bangladesh with major part in India. The Ganga basin extends over an area of 1,086,000 km^2. The drainage area lying in India is 862,769 km^2 which is nearly 26.2% of the total geographical area of the country. The total length of the Ganga River is 2,525 km. and the navigable length is 631 km.

The entire length of Ganga River in India can be divided in three stretches:

(a) Upper reach from the origin to Narora;
(b) Middle reach from Narora to Ballia, and
(c) Lower reach from Ballia to its delta.

Predominant soil types found in the basin are sand, loam, clay and their combinations, such as sandy loam, loam, silty clay loam and loamy sand soils. The basin area of the River Ganga in the State of Uttar Pradesh is spread in different 25 districts. Excessive use of chemical fertilizers in agriculture and horticulture activities in the basin associated with industrial development in this region are the major threats to NMCG. Industrial pollution problems are being taken care by Hon'ble NGT, Hon'ble Supreme Court and State Pollution Control Board and appropriate actions are being taken by them.

One NGO/ CSO based programme on organic farming is also in practice with support of NCOF, MOA&FW,GOI. But, it's agenda is limited to basic awareness on organic farming and it's related certification. Such intervention will reduce the excessive use of chemical fertilizers leading to zero use and completely replace it by organic fertilizers/ manures as discussed latter in this text. Such efforts to make the whole basin area as organic agriculture/ horticulture hub will check the residual impacts of chemical fertilizers in River Ganga Water. This will be done by Farmers Producer Organizations in the State of Uttar Pradesh as mentioned at Para no-7 of this document.

2.0 Drainage Area of the Ganga Basin States:

The drainage area of the Ganga Basin State are following:

Drainage Area of the Basin State	Drainage area (Km2)
Uttarakhand & Uttar Pradesh	294, 410
Madhya Pradesh	199,385
Bihar	143, 803
Rajasthan	112, 490
West Bengal	72, 618
Haryana	34, 271
Himachal Pradesh	4, 312
Delhi	1, 480
Total Drainage Area of Ganga Basin	862,769

3.0 Water Potential of the Ganga Basin:

The water potential of the Ganga Basin is following:

(a) Surface Water potential: 525.02Km3

(b) Ground Water potential: 170.99Km3

Ground water potential is reducing day by day as majority of water charging systems in the Ganga basin area are choked due to speedier urbanization. Similar positions are also in the basin of tributaries to River Ganga whether it is Yamuna, Gomti, Ghghara etc or other rivers like Hindon, Kali, Krishna etc, which are active in rains but rest of times they work as carriers for huge quantum of untreated sewer/ industrial waste water to River Ganga directly/ indirectly. So, River Ganga surface water as well as ground water potential in the basin area is affected adversely.

4.0 Water Utilization of the Ganga basin :

The water utilization of the Ganga basin is following:

(a) Surface Water Utilization for drinking and irrigation purposes

(b) Ground Water Utilization for drinking and irrigation purposes

(c) Surface Water Utilization for hydel power generation in the upper reach

Recently, a ferry service has been started between Varanasi & Halidia.

5.0 Tributaries with Drainage Area in sq. km.:

The tributaries of River Ganga and their respective drainage area are following:

Sl. No.	Name of tributaries Drainage	Area ((Sq KM)
1.	Ganga including Karmnasa Baya, Bagmari-Pagla	113,163
2.	Yamuna including Chambal, Betwa & Ken	363,082
3.	Sone	71,259
4.	Ghaghra	57.647
5.	Ramganga	32,493
6.	Damodar including Khari-Gangur-Ghia	31,220
7	Gomti	30,435
8	Rupnarayan including Haldi, Rasulpur & Kangsabati	23,760
9	Mahananda	17,440
10	Tons	16,860
11	Kiul-Harohar	16,661
12	Kosi	11,070
13	Burhi-Gandak	10,150
14	Punpun	8,530
15	Mayurakshi-Babla	8,530
16	Gandak	7,620
17	Ajay	6,050
18	Jalangi	5,640
19	Badua-Chandan	4,840
20	Bagmati	3,720
21	Adhwara	2,600
22	Kamla-Balan	2,980
23	Tidal rivers	15,650

Along-with above major tributaries having such large drainage capacity, there are a large no. of other rivers like Kali, Krishni, Hindon, Ishan etc. are also

flowing in the Ganga River basin with full load of untreated sewer and industrial waste water. In rainy season, such rivers flush the waste water load to River Ganga In the rest of the days of the year these rivers are appeared as dumping ground of waste water of nearby urban amenities, untreated sewer and untreated industrial waste water. Anyone can see the Hindon water quality near to Delhi before it meets River Yamuna or Kali River before it meets to River Ganga near Kannauj.

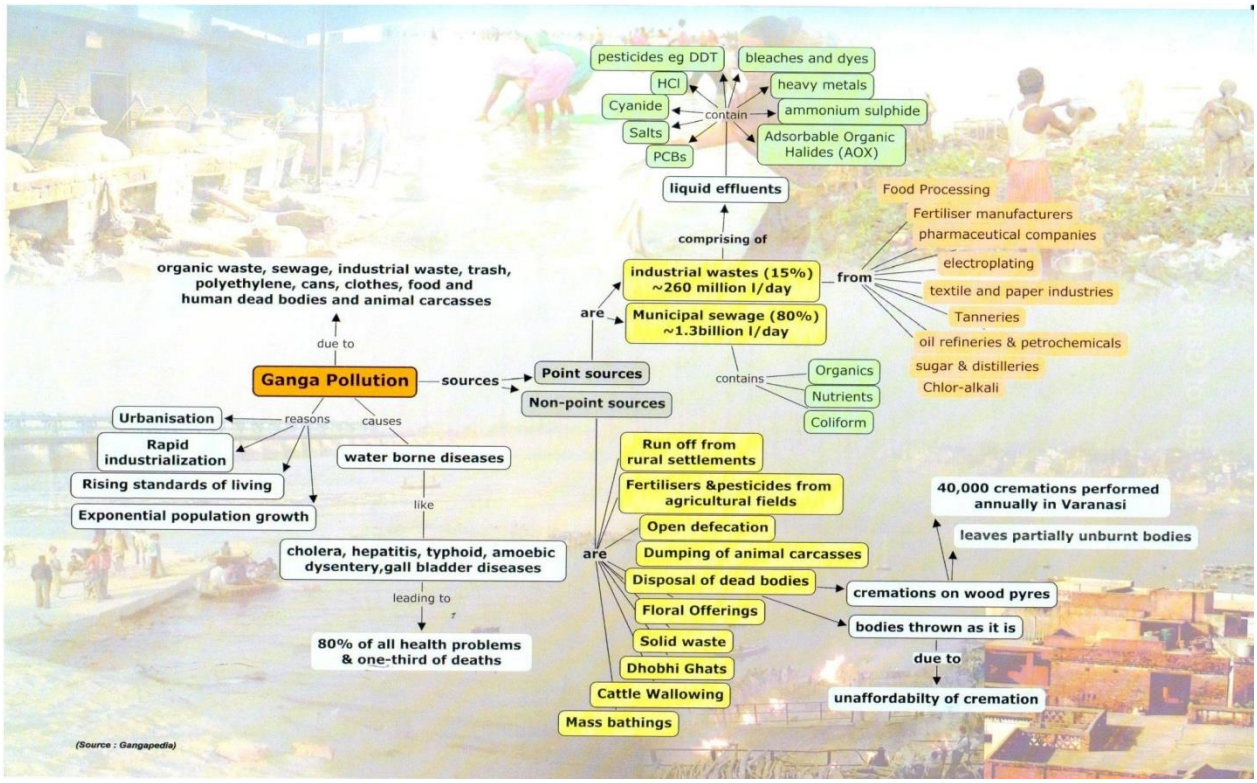
6.0 Major Projects and Water Quality of Ganga Basin :

The major projects in Ganga basin area Ganga canal systems, Yamuna Canal Systems, Betwa Canal, Dhasan canal, Ken Canal, Ghagar Canal, Sarda Canal, Tehri damproject, Lakhwar dam, Tapovan Vishnugarh project,Ramganga Multipurpose project, Dhalipur Hydropower project, Rihand dam, Chilla Hydrpower project, Tanakpur Barrage, Kishau Dam, Maneri Bhali Hydropower project, Khara Hydropower project, Khodri Hydropower project, Chobro Hydropower, Rajghat Dam, Halali Dam,Gandhisagar Dam, Ranapratap Sagar Dam,Jaahar Sagar Dam, Chambal ValleyProject, Obra Dam, Bansagar, Tons , Parbati dam Matatila Reservoir, Ramsagar Dam, Massanjore reservoir, Dhauliganga Power Project, DVC System and Farakka Barrage . These projects are the carrier of development of Indian Economy on one-hand while barrier to make River Ganga clean and maintain it's natural flow & mythological importance for which it is known globally.

6.1 Water quality and Pollution in Ganga River:

Rapidly increasing population, rising standards of living and exponential growth of industrialization and urbanization have exposed water resources, in general, and rivers, in particular, to various forms of degradation. The mighty Ganga is no exception. The deterioration in the water quality impacts the people immediately. Ganga, in some stretches, particularly during lean seasons has become unfit even for bathing. The threat of global climate change, the effect of glacial melt on Ganga flow and the impacts of infrastructural projects in the upper reaches of the river, raise issues that need a comprehensive response.

In the Ganga basin approximately 12,000 million litres per day (mld) sewage is generated, for which presently there is a treatment capacity of only around 4,000 mld. Approximately 3000 mld of sewage is discharged into the main stem of the river Ganga from the Class I & II towns located along the banks, against which treatment capacity of about 1000 mld has been created till date. The contribution of industrial pollution, volume-wise, is about 20 per cent but due to its toxic and non- biodegradable nature, this has much greater significance. The industrial pockets in the catchments of Ramganga and Kali rivers and in Kanpur city are significant sources of industrial pollution. The major contributors are tanneries in Kanpur, distilleries, paper mills and sugar mills in the Kosi, Ramganga and Kali river catchments. The major causes of pollution in River Ganga may be shown like following:



There is sharp decline in the quality of Ganga water is due to increasing level of pollution from urban and industrial areas. The problem has arisen largely due to the discharge of untreated urban waste and industrial effluents from the cascade of large and medium cities located along the course of Ganga and its tributaries. Although Ganga is considered as a holy river in mythology, people do not hesitate while dumping domestic and industrial waste in the river.

Numerous cities located in the Ganga basin generate and discharge huge quantities of wastewater, a large portion of which eventually reaches the river through natural drainage system. Over the years, the Ganga and its tributaries have become the channels of transport of industrial effluents and the drains for the wastewater of the cities. Approximately, three-fourths of the pollution in the Ganga is from untreated municipal sewage. In particular the middle reach of the basin between Kanpur and Buxar is the most urbanized and industrialized, as also the most polluted segment of the basin. Municipal and industrial wastes with dangerous concentration find entry into the watercourse in this segment and pose a grave threat to society.

In the hilly reaches up to Rishikesh, Ganga water is quite clean except for sediments. From Rishikesh onwards, disposal of sewage into Ganga begins. Besides the municipal waste of Rishikesh and Haridwar, industrial units discharge partly treated effluents into the river. Haridwar City has a population of 2.30 lakh and nearly 60,000 people visit the city every day on an average. Considerable lengths of sewer lines are clogged by silts that flow in from the adjoining hills. Further downstream from Haridwar, Ganga flows through Bijnor, Garhmukteshwar, Narora and Kannauj. Here, water is not much polluted as these two towns do not have any large industry.

Moving downstream, the situation changes for the worse at Kanpur from the quality point of view. Sewage from the city (population 2.92 million) coupled with untreated toxic waste discharge from about 200 industrial units including 94 tanneries results in severe damage to water quality. There are same no of tanneries in Unnao also whose waste water is again a problem to the water quality of Ganga River. Recent development of a new STP followed by complete tapping of Sisamu Nalla, the Dessolve Oxygen Level of Ganga water has improved from the mean value of 3 mg/l to 8.51 mg/l at Jajmau, near Kanpur (CPCB study data December 2020).

At Allahabad with population of about 1.54 million, municipal wastes are the major contributor to river pollution. Yamuna whose water is highly polluted joins Ganga at Sangam. Large volume of municipal and industrial waste is dumped in the river at Varanasi, a city with approximately 1.22 million population.

The Varuna River, which joins the Ganga in the vicinity of Varanasi, receives waste from many drains. Besides, due to the religious belief that those who die in Varanasi are sure to go to heaven, on average, more than 40,000 dead bodies are cremated on the river bank and the ashes and remains are dumped in the river. Temple floral waste disposal directly to River Ganges are also one of the important reason to water pollution. (**Some photos are of temple floral waste disposal in the River Ganges at Varanasi are presented at annexure-1**).

Entering in Bihar, a number of industries (including fertilizer and oil refining) have come up along Ganga River. Patna is the most populous city whose wastes are dumped in the river. At Kolkota in West Bengal, the Hooghly (Ganga) river basin is highly populated as the waster from numerous industries as well as municipal sewage is dumped in the river.

7.0 F.P.O. linked proposed Action Plans in the State of Uttar Pradesh :

In view of the magnitude of water quality problems in the Ganga basin, three actions plans are being proposed and to be executed by FPOs in the State of Uttar Pradesh;

7.1: Establish F.P.Os. Linked Mission Mode Programme of Plantation & Cultivation :

Uttar Pradesh Government has taken policy decision to establish at least one Farmer Producer Organisations in each block of the State by end of March-2022. Each such FPOs may have maximum share-holdings of 1000 farmers. It means there may be 5-10 such FPOs in each block at some latter stage. Presently, there are at least 35 FPOs are functional in different 25 districts of the State in which River Ganga in flowing.

These FPOs have already started doing cultivation of herbal & aromatic crops and plantation of Bamboo, other bio-mass crops to be used as raw materials to bio-energy industries as well as sink to Carbon Di-Oxide. Such plantation and cultivation are enhancing the farmer income on one hand while induce the phyto-remediation bed for enhancing dissolved oxygen level in Ganga water. Phyto-remediation is a technique established by CSIR-NEERI, Nagpur to treat the waste

water with BOD & COD level up to 300 and TSS up to 2000. It will reduce the soil erosions also during flood as well as create the natural process of charging underground water table. Bamboo plantation will improve the water quality through absorbing the heavy metals in the soil as well as river water. Bamboo plantation adjoining to River will create a natural shelter to wild animals who have become to regular trouble to farmers, create a good carbon- di-oxide sink and also create an environment friendly and equally good substitute to Indian Timer Industry.

Such efforts may be easily executed from the upcoming Kharif Session i.e. from July 2021 as High Power Committee under Chairmanship of Agriculture Production Commissioner , GOUP has already been notified as SPMU-FPO.

7.2 Organise Ganga Sanrakshan Padyatra Karykram:

It will be totally a voluntary programme run by the share-holder farmers of the FPOs established as above and by them in their respective areas/ territories. Such voluntary efforts of creating awareness about River Ganga water quality and it's mythological importance in the masses may be supported by NMCG through linking/ facilitation the convergence with the programme run by different Ministries of GOI on environmental conservation, water conservation, health & nutrition, organic cultivation, women-empowerment, solid & liquid waste management, development of MSME sector units etc. This programme will be run simultaneously in all the villages adjoining to river Ganga. Here-under are the district-wise details of Gram Panchayats:

SL.No.	District Name	No. of GP's near Ganga River	No. of Villages near Ganga River	No. of Habitations near Ganga River
1	ALLAHABAD	120	205	711
2	BALLIA	41	76	243
3	BIJNOR	18	54	70
4	BUDAUN	32	63	122
5	BULANDSHAHR	30	42	54
6	CHANDAULI	47	74	160
7	FARRUKHABAD	55	58	226

8	FATEHPUR	40	91	267
9	GHAZIPUR	94	217	506
10	HAPUR	11	24	26
11	HARDOI	11	16	84
12	AMROHA	41	87	111
13	KANNAUJ	14	27	65
14	KANPUR NAGAR	37	76	162
15	KASGANJ	38	77	159
16	KAUSHAMBI	28	49	126
17	MEERUT	11	45	47
18	MIRZAPUR	113	223	546
19	MUZAFFARNAGAR	14	40	46
20	PRATAPGARH	18	29	170
21	RAE BARELI	27	65	296
22	BHADOHI	36	73	120
23	SHAHJAHANPUR	6	12	37
24	UNNAO	33	70	184
25	VARANASI	40	54	216
	TOTAL	955	1847	4754

The FPOs in these districts shall take initiative to cover the villages/ habitations adjoining to both side of the River Ganga from 2 KM to 10 KM shall be covered under the programme. It includes the rehabilitation/ rejuvenations of other existing rivers/ natural drainage systems as mentioned at para no. 5 above. For this purpose, we have proposed FPO linked awareness programme in different districts as mention below:

PROPOSED FARMERS AWARENESS CAMPS BY FPOs ADJOINING TO GANGA RIVER IN UTTAR PRADESH						
Sr. No.	**District**	**Left side**	**Right side**	**Total**	**Block**	**Village**
1	Bijnore	2		2	Muhammadpur	Dayal Wala
					Haldaur	Salempur Mathana
2	Muzaffar Nagar		2	2	Jansath	Siali
					Morna	Kari

3	Meerut		2	2	Hastinapur	Dudhikhadar
					Parikshitgarh	Neemka
4	Amroha (JPN)	2		2	Dhanaura	Alinagar
					Gangeshwari	Dehrigujar Ahtamali
5	Hapur (Panchshil Nagar)		2	2	Garhmukteshwar	Alamgipur
					Garhmukteshwar	Lathira
6	Bulandshahar		2	2	Dibai	Badarpur
					AnoopShahar	Muhammadpur Bangar
8	Badaun	2		2	Dhawan	Dayohara Shekhpur
					Sahaaswan	Bhikhampura Tappa Jamani
9	Kasganj		2	2	Ganjdundwara	Bagbas
					Soron	Chandrapura Gaupura
10	Shahjahanpur	2		2	Pindariya	Atamadpur Chak
					Kalan	Pailani Uttar
11	Farrukkhabad	1	1	2	Barahpur	Amethi Kohna
					Rajepur	Ambarpur
12	Kannauj		2	2	Kannauj	Daipur
					Jalalabad	Baramau Bangar
13	Hardoi	2		2	Sandi	Umrauli Jayetpur
					Madhoganj	Mahimpur
14	Kanpur Nagar		2	2	Bilhaur	Hasauli
					Kalyanpur	Hindupur
15	Unnao	2		2	Fatehpur Sarausi	Garae
					Sikandarpur Karan	Dudhara
16	Raebareli	2		2	Gaura	Payagpur
					Sareni	Jaganathpur
17	Fatehpur		2	2	Bhithaura	Ashi
					Hathgaon	Kotla
18	Kaushambi		2	2	Muratganj	Faridpur Chak
					Kara	Sahjadpur
19	Pratapgarh	2		2	Kunda	Chakarpur

					Kunda	Naubasta
20	Allahabad	1	1	2	Saidabad	Baharpur
					Soran	Pandila
21	Bhadohi (SRN)	2		2	Aurai	Bhawanipur
					Deegh	Arai Upwarpur
22	Mirzapur	2	3	5	Narayanpur	Jalalpur maphi
					Shikhan	Dhanaita
					Majhawan	Bajahan
					Pahari	Belwan
					Chhanvey	Unchdih
23	Varanasi	2		2	Kashividyapeeth	Tikri
					Chiraigaon	Amauli
24	Chandauli		2	2	Chahniya	Barawan
					Niyamatabad	Bahadurpur
25	Ghazipur	1	1	2	Devkali	Dubaitha
					Zamaniya	Duhiya
26	Ballia	2		2	Belhari	Baghoonch
					Dubhar	Bandhachak
TOTAL		27	26	53		

This proposed awareness programme in 53 Gram Panchayats shall extend the vision of the programme in all the 955 Gram Panchayats (Presently there are about 1000 Gram Panchayats adjoining to River Ganga after their reconstitution) through share-holder farmers of the working FPOs.

7.3 Organic cultivation programme & bio-degradable waste to Bio-gas/ Bio-cng production in Mission Mode:

NMCG is already running organic cultivation programme in the villages adjoining to River Ganga. Presently, Basic awareness and farmers training in the field of the organic farming is being done in the different districts by the executing entities nominated by NMCG. We have identified 53 locations (as mentioned above) on the both sides of River Ganga and about 20 different locations adjoining to it's major subsidiaries like Hindon, Kali, Krishna, Gomti, Ghghra, Yamuna and Betwa etc. to start the task. The organic farming on mass level can only be possible when good quality organic manures would be ready available to each beneficiary farmer in the project area. This agenda at mass level may easily

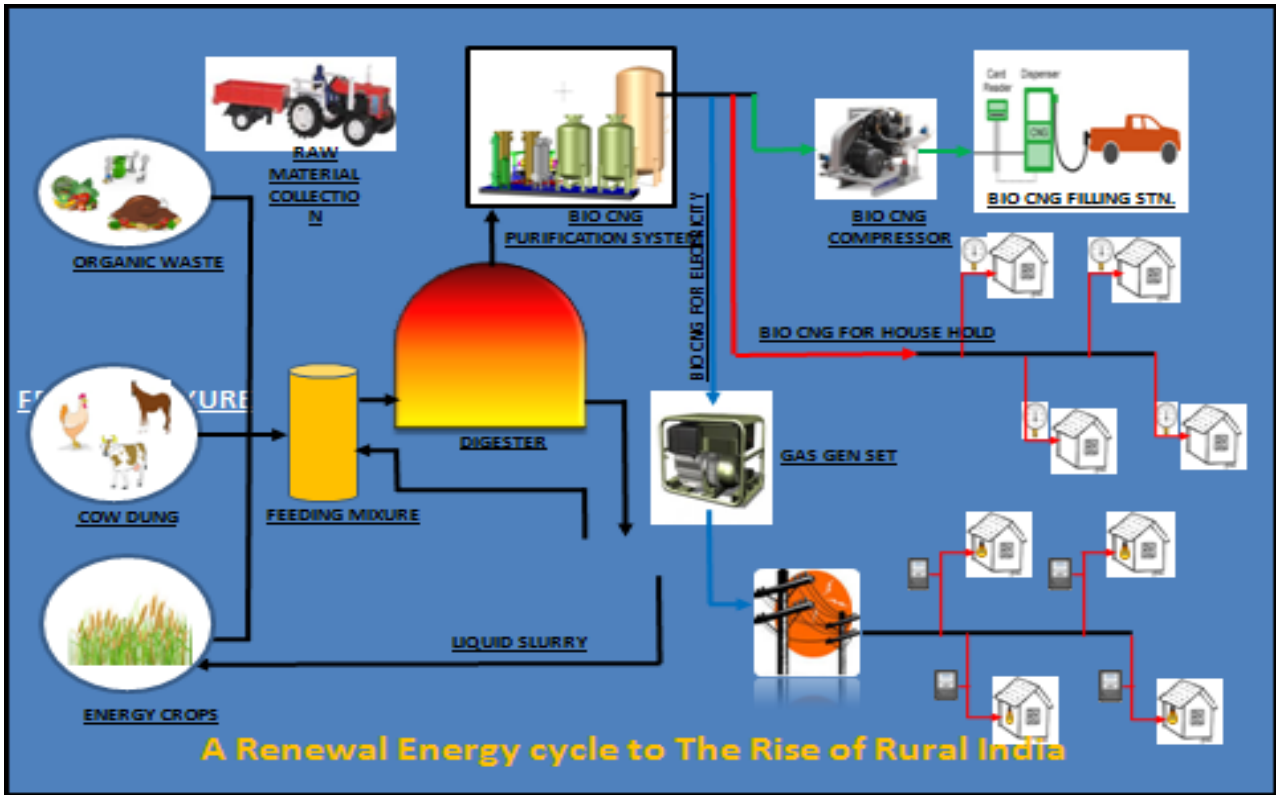
be promoted through establishing the bio-degradable waste to Bio-gas/ Bio-CNG units in the project villages either on community basis or individual basis. Bio-gas/ Bio-CNG units of commercial size may be established in Gaushalas developed by the State Govt as cow shelters. A model design of Bio-degradable waste to Bio-gas/ Bio-CNG production (Community & Family Size models) is being attached at **Annexure-2.**

Bio-gas programme will facilitate the green energy for cooking & lighting in the village house-holds (It may be developed as complete replacement of UJJWALA YOJNA run by MOPNG,GOI) , reduce the flow of bio-degradable waste to Rivers during rains (Bio-degradable waste like cow-dung etc in river water causes eutrification and finally causes the threats to aqua life), facilitate good quality organic manures having total nitrogen 1.12%, total phosphate 1.23%, total potassium 2.19%, total organic carbon 27.31%, total potassium oxide 2.05%, total phosphorous penta-oxide 1.38% conductivity 1.2 ds/m, Ph value 6.5 and C:N 16.2. These results are as per FCO-1985. In addition to above, such intervention will create employment/ self-employment opportunities in local youths. Here-under are the basic information about bio-gas/ Bio-CNG programme proposed under NMCG:

Biogas is a mixture of colourless and odourless gases. It includes different gases, major portion in biogas being methane (CH_4) and carbon dioxide (CO_2). Biogas can be produced through fermentation from any degradable material (Substrate) with the help of different types of tiny microbes. It can be produced in a concealed chamber/ digester in the absence of atmospheric oxygen.

It also contains traces of other gases like hydrogen (H_2), Moisture (H_2O) , hydrogen sulphide (H_2S)etc. Improved digesters used for anaerobic digestion can produce biogas with 65% - 75% methane content. Biogas contains water vapour also. Biogas contains different gases including methane carbon dioxide, Hydrogen sulfide etc., among these gases only methane is flammable. By the process of purification , methane is separated from the biogas. The pure methane is filled in cylinders by the compressor and known as Bio-CNG. This CNG can be used for different purpose such as industrial and vehicle fuel in rural area,

Based on above parameters, here-under are the Ariel views/ presntation of such a Bio-gas/ Bio-CNG plant in a Community/ Gaushala and complete self-reliance in the energy sector:



7.4 Water bodies development in the catchment area of the River Ganga:

There are various locations in the catchment area of the River Ganga, where flood water is retained for a long time after rainy season. Majority of such land are with farmers of nearby villages where FPOs are functional. These farmers can take only one crop as they have no irrigation facilities there. Crops in these area are well affected by wild animals like Neel Gay etc. So, the yield per acre is not reasonable in comparison to other farmers having normal land. In such area we have a plan to develop water bodies for aqua-culture and famers shall be involved in the Blue Revolution of MOA&FW,GOI..

Such water bodies shall retain huge quantum of rain water and ultimately it will increase the ground-water level of the nearby villages. It will also extend the irrigation facilities in the nearby villages after rains. Such water bodies shall be created with the historical design of “SIDHINUMA TALAB” with earthen bunds well planted by aromatic grasses like lemongrass etc and herbals trees like Sahjan,

Ashok, Neem , Arjun, Pakar, Bargad, Pipal etc on the bunds top. Bamboo shall be planted in the river face side of pond with at least 10-20 rows of bamboo plants (@1000 plants per acre area) so that flood intensity may be reduced and earthen bunds of the ponds may be safe. These plants shall create a phyto-remediation beds to treat the polluted water of River Ganga. Simultaneously, the FPOs lead such efforts would be made in the major subsidiaries of River Ganga. Phyto-remediation is bio-logical technique to treat the waste water. (**Graphical presentation is attached at annexure-3**).

Bio-remediation to river water will also improve the river water quality. Such organized plantations and cultivation will improve the income level of the farmers, create large no of self-employment/ employment opportunities to youths, facilitate the natural habitats to the wild animals, return the traditional beauties of River Ganga basin and finally "NIRMAL & AVIRAL GANGA" and such status shall be maintained on sustainable basis by FPOs without any additional cost after the execution of the above action plan jointly by NMCG and FPOs network in Uttar Pradesh. It may be further extended to other States touching River Ganga also as MOA&FW, GOI is running FPO programme throughout the country. Uttar Pradesh team of trained and committed FPOs shall also take lead to make it possible if appropriate opportunities are being awarded by NMCG to Farmer Producer companies for following major activities:

(A) Establishing nurseries of medicinal, herbal, aromatic and different species of fruit plants, Bamboo & Elephant grass.
(B) Plantation/ Cultivation under pure organic categories
(C) Promotion and cultivation of minor millets as super food
(D) Establish micro-processing units in food processing sector
(E) Establishing water reservoirs with earthen bunds duly enforced by aromatic herbs.
(F) Establishing aqua culture for sustainable self-employment.

All above are proposed by the Foundation as community initiative.

Rivers and Water Bodies (Lakes) Conservation

(Curtsey: Ministry of Water Resources, GOI)

National River Conservation Plan (NRCP) is the Centrally Sponsored Scheme implemented by this Ministry for abatement of pollution in identified stretches of rivers in the country, excluding those in Ganga basin, by providing financial and technical assistance to the States/Union Territories (UTs) on cost sharing basis.

Rivers and lakes in the country are polluted mainly due to discharge of untreated or partially treated sewage from cities/towns and industrial effluents in their respective catchments, problems in operation and maintenance of sewage/effluent treatment plants, lack of dilution and other non-point sources of pollution.

Central Pollution Control Board (CPCB) in association with the State Pollution Control Boards/Committees in different States/UTs has been monitoring water quality of rivers and other water bodies in the country through a network of monitoring stations under the National Water Quality Monitoring Programme. Based on water quality monitoring results, pollution assessment of rivers has been carried out by CPCB from time to time.

As per the last report of CPCB in September, 2018, 351 polluted river stretches were identified on 323 rivers in the country based on monitoring results in terms of Bio-chemical Oxygen Demand, an indicator of organic pollution. These include 64 stretches on rivers not in the domain of NRCP, with different 10 State/UT like Delhi, Haryana, Himanchal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Bihar, Jharkhand and West Bengal.

Based on water quality monitoring of 306 lakes in the year 2019, CPCB has also informed that 252 lakes were found not meeting the criteria for outdoor bathing.

Other than NRCP, the Ministry is implementing the Central Sector Scheme of Namami Gange for rejuvenation of river Ganga and its tributaries. Under the Namami Gange programme, a total of 346 projects in Ganga basin States are in progress. In compliance of the orders of National Green Tribunal (NGT) in Original Application No.673/2018 regarding polluted river stretches in the country, States/UTs are required to implement action plans approved by CPCB for restoration of the said stretches in their jurisdiction within the stipulated timelines. As per the orders of NGT, regular review on implementation of action

plans is undertaken in the States/UTs and also at Central level. These rivers are Sirsia, Farmar, Ganga, Poonpun, Ram Rekha, Sikrahna , Yamuna, Garga, Sankh, Damodar, Konar, Nalkari, Chambal, Betwa, Sone, Bichia, Chamla, Newaj, Parvati, Tons, Khan, Kshipra, Mandakini, Banas, Chambal, Hindon, Kalinadi, Varuna, Yamuna, Gomti, Ganga, Ramganga, Betwa, Ghaghara, Rapti, Sai, Saryu, Bhela, Dhela, Suswa, Kichha, Kalyani, Ganga, Kosi, Nandour, Pikhar, Vindhadhari, Mahananda, Churni, Dwarka, Ganga, Damodar, Jalangi, Kansi, Mathabhenga, Barakar, Dwarakeshwar, Mayurkashi, Rupnarayan, Silabati, Ashwani, Giri, Pabbar.

For conservation of lakes and wetlands in the country, the Ministry of Environment, Forest & Climate Change is implementing the Centrally Sponsored Scheme of National Plan for Conservation of Aquatic Eco-systems (NPCA) on cost sharing basis.