

NR-303 - Participatory development and arrangements of the National Strategy and Action Plan for low-carbon water and sewage industry

Iran (Islamic Republic of)

NAMA for Recognition

A Overview

A.1 Party

Iran (Islamic Republic of) ▼

A.2 Title of Mitigation Action 

Participatory development and arrangements of the National Strategy and Action Plan for low-carbon water and sewage industry

A.3 Description of mitigation action

our purpose is development of the strategy and the national action plan for the low carbon water and wastewater industry of the country with a view to determine the future direction of this industry in moving towards a green economy, in the form of introducing supportive and innovative mechanisms such as private sector participation, national and international resources orientation, identifying potentials for reducing emissions, and defining related projects are on the agenda. This agenda will be a comprehensive and practical plan for the country's water and wastewater industry. In this plan, all the methods and suggestions for the production of renewable energy, the optimization of energy consumption in the water and wastewater industry of the country and the potential for reducing emissions in the industry will be evaluated. Normally the feasibility studies will precede creating any changes in a particular sector, especially the water and wastewater industry, with the aim of increasing efficiency, reducing emissions, reducing costs and, most importantly, and if positive results are achieved after the project was implemented at the desired location, the plan will be expanded to other places with similar conditions, and even it will be possible to implement it in other countries by documenting the results obtained. One of the other goals of this project is to demonstrate the broad and long-term use of innovative and efficient solutions and the transfer of environment friendly technologies and knowledge's for each stage of wastewater collection and treatment .

The proposed project has these main components :

1. Developing a comprehensive "Master Plan" for Carbon Management in Water and Wastewater Industry
2. Identification and evaluation of sources of greenhouse gas emissions in the water and wastewater industry and estimating the amount of emissions
3. Predicting the emission of greenhouse gases in the country's water and wastewater industry
4. Exploring ways to develop a low-carbon economy in accordance with the country's economic hubs of resistance in the water and wastewater industry
5. Strategic Planning and preparing the master document and emission reduction strategies in the Water and Wastewater Industry

A.4 Sector

☒ Energy supply

☐ Transport and its Infrastructure

☐ Residential and Commercial buildings

☐ Industry

☒ Agriculture

☐ Forestry

☒ Waste management

A.5 Technology	☐ Other	
	☒ Bioenergy ☒ Energy Efficiency ☒ Hydropower ☐ Wind Energy ☒ Carbon Capture and Storage ☐ Land fill gas collection ☐ Other	☒ Cleaner fuels ☐ Geothermal ☐ Solar Energy ☐ Ocean Energy ☐ Low till / No till
A.6 Type of action	☐ Other	
	☒ National/ Sectoral goal ☒ Strategy ☒ National/Sectoral policy or program ☐ Other	☐ Project: Investment in machinery ☐ Project: Investment in infrastructure ☐ Project : other
A.7 Greenhouse gases covered by the action	☐ Other	
	☒ CO2 ☒ N2O ☐ PFCs ☐ Other	☒ CH4 ☐ HFCs ☐ SF6

B National Implementing Entity

B.1.0	Name	Tehran Province Water & Wastewater Co.
B.1.1	Contact Person 1	Hussein, Akbarian
B.1.2	Address	Fatemi Ave.,Hejab st.,Tehran, Iran
B.1.3	Phone	0098 2188435961-3
B.1.4	Email	akbaryantefaghi@yahoo.com
B.1.5	Contact Person 2	
B.1.6	Address	
B.1.7	Phone	
B.1.8	Email	
B.1.9	Contact Person 3	
B.1.10	Address	

B.1.11	Phone	
B.1.12	Email	
B.1.13	Comments	

[Add Additional Entity](#)

C Expected timeframe for the implementation of the mitigation action

C.1	Number of years for completion	3
C.2	Expected start year of implementation	2019

D Currency

D.1	Used Currency	USD
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Conversion to USD: 1

E Cost

E.1.1	Estimated full cost of preparation	5,000,000
		Conversion to USD: 5,000,000
E.1.2	Comments on estimated full cost of preparation	these cost are our estimation and After completing the recognition step, we will determine the exact implementation costs.
E.2.1	Estimated full cost of implementation	
		Conversion to USD: 0
E.2.2	Comments on estimated full cost of implementation	
E.3.1	Estimated incremental cost of implementation	
		Conversion to USD: 0
E.3.2	Comments on estimated incremental cost of implementation	

F Estimated emission reductions

F.1	Amount	3.5
F.2	Unit	MtCO2e
F.3	Additional information (e.g. if available, information on the methodological approach followed)	These estimates and calculations are performed by using the IPCC 2006 (CHAPTER 6) , DRAFT Greenhouse Gas Emissions Estimation Methodologies for Bionic Emissions from Selected Source Categories: Solid Waste Disposal Wastewater Treatment Ethanol Fermentation, Submitted by RTI International, statistics obtained from the country's wastewater treatment plants. 

G.1 Other indicators of implementation

The drafting of the work plan for the low-carbon water and wastewater industry is linked to a number of the 17 sustainable development goals, including the following :
The goal number "6" of the document "Ensuring Public Access and Sustainable Management of Water and Wastewater", whose realization is the responsibility of the water and wastewater industry, itself consists of a variety of parts, including access to safe drinking water and sanitation facilities for all individuals, water quality improvement through reduction of pollution and reuse of water, implementation of integrated water resources management at all levels expansion of international cooperation and supporting capacity building for the development of countries and programs in water and wastewater activities, including water extraction, water desalination, water efficiency, wastewater treatment, and ultimately supporting and enhancing nongovernmental (private) partnership for promotion of water and wastewater management.

Also, in order to achieve the goal number 7 of this document which refers to "ensuring access to affordable, sustainable and modern energy" and includes topics such as a substantial increase in the share of renewable energy, optimization of energy efficiency, increased global cooperation to facilitate access to clean energy research and technology and increased investment in energy infrastructure and clean energy technologies, expansion of infrastructure and technology upgrades to provide modern and sustainable energy services, it is really important to review and measure the potential renewable energy sources at the water and wastewater level of the country. The goal number "11", which emphasizes on sustainable urban development and includes the reduction of mortality and damages and the reduction of financial losses caused by disasters related to waterborne diseases, reducing the amount of adverse effects of cities on the environment (including special attention to urban management and waste management), as well as the issues of resilience against disasters and development, given the share of urban water and wastewater as one of those liable in urban management, and given the possibility of increasing the resilience of urban water and wastewater installations using renewable energy, developing the use of renewable energy in these facilities should be placed on the agenda of the country's water and wastewater industry. Controlling the climate change and taking immediate action to fight it over the next 15 years is also an important objective (goal 13) of this document .

Co-benefits:

Department of Environment: Given that the goal of this plan is to move towards a low carbon industry and sustainable development, the Department of Environment can be placed alongside the water and wastewater company by providing technical ideas and information in this field, issuing necessary licenses in various fields and expediting their issuance, confirming the various forms sent for utilizing various international sources etc.

Ministry of Foreign Affairs: since the expansion of international cooperation and the use of other countries' financial and technical capacities is a key part of achieving the sustainable development and the low carbon water and wastewater industry goals, planning for the development of international relations and the use of global environmental incentives for bilateral or multilateral, regional or international technical and financial cooperation is essential, and Ministry of Foreign Affairs' cooperation and consultation can be very useful in achieving these goals.

Ministry of Jihad Agriculture: With start of this initiative, this ministry can be involved in many projects alongside the country's water and wastewater engineering company. An example is cooperation in the preparation and use of surplus activated sludge and the effluent of wastewater treatment plants in the agricultural industry.

The Ministry of Agriculture can help with the introduction of experts and even with designating pilot areas for the project of using surplus sludge from the treatment plants as fertilizer and it can also help in the marketing and sale of this product.

Various departments of the Ministry of Energy: This ministry consists of various departments, including Sana, Tavanir, and Research Institute of the Ministry of Energy, the cooperation with whom is important for the development of this program. For example, using renewable energies through construction of solar power plants or electricity generation from the height differences available in different water sectors or energy use by installing massive turbines in different parts of the water and wastewater treatment plants or generating electricity from sludge dig-esters in wastewater treatment plants all require the licensing of various departments of the Ministry of Energy as

well as their expert advice. Therefore, the coordination between these sectors and the water and wastewater company of the country can accelerate the implementation of such projects. End most importantly; support to sell the produced energy is also another contribution from these sectors.

Ministry of Science, Research and Technology: Naturally, various academic and research studies in the field of water and wastewater and the low carbon industry can be used as resources and prevent duplicate tests and researches. The advice of professors and students active in this field can, likewise, be effective in getting positive outcomes. Undoubtedly, the relationship between industry and universities will play a significant role in this project, and many research projects and inventions will be industrialized.

On the other hand, in order to implement various projects, it is necessary to cooperate with many knowledge-based companies for consulting and implementation, therefore, it is possible to foster the grounds of cooperation with science and technology parks and use the experiences and capabilities of companies based in these settlements.

Private sector: After specifying the objectives of the project, it is necessary to prepare the project plan in cooperation with reputable national and international consultants, and assign one or more prestigious companies with the responsibility of preparing the final plan.

But after the document has been prepared, it is necessary for the execution of different projects to cooperate with some consulting companies and domestic and foreign contractors in order to design, implement and even sometimes operate the projects. There is also the need for various Iranian and foreign equipment, and cooperation with manufacturing companies can facilitate the process and in cases where it is necessary to import equipment from other countries it will be necessary to cooperate with companies importing various equipment and technology.

People: In addition to people's participation in the elaboration and implementation of this document through non-governmental organizations and people's constitutions, eventually, if this program is compiled and different projects are implemented, a long step will be taken towards a low-carbon economy, and considering the results of various projects that will be effective not only in reducing emissions but also in increasing public health, fighting against drought, preventing pollution of water resources, etc., the main beneficiaries of this national project will be people of cities and villages and the next generations of Iranians.

H Other relevant information

H.1 Other relevant information including co-benefits for local sustainable development

1- The General Environmental Policy- General Consumption Pattern Reforms Policy for the environmental sector to move towards a low-carbon industry, using clean energy, and management of waste and effluents.

2- the paragraph 8 of the EPA's general policy of developing a green economy with an emphasis on the low carbon industry, as well as reducing greenhouse gas emissions which is one of the major components of the national climate change program.

In this regard, the low carbon economy document has been considered as an attachment to the Sixth National Development Plan.

3- The National Climate Change Program. The program, in accordance with the country's economic carbon economy document and the Iran's Intended Nationally Determined Contribution, sets out general policies.

I Relevant National Policies strategies, plans and programmes and/or other mitigation action

I.1 Relevant We referred to the policies associated with this issue above

National

Policies

I.2 Link to other NAMAs	(none) Sustainable Housing Programme High Integration Program of Wind Energy Implementation of a National Forestry and Climate Change Strategy, including the development and implementation of a Platform for the Generation and Trading of Forest Carbon Credits.
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J Attachments

J	Attachments	<table><tr><th>Title</th><th>Description</th></tr><tr><td colspan="2">No records to display.</td></tr></table>	Title	Description	No records to display.	
Title	Description					
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J.1	Attachment description					
J.2	File	Choose File No file chosen				

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