

International Training Programme

On

Low Cost Technologies for Arsenic Removal from Groundwater

5-6 September 2023

Cairo, Egypt

ORGANISED BY



CENTRE FOR SCIENCE & TECHNOLOGY OF THE
NON-ALIGNED AND OTHER DEVELOPING
COUNTRIES (NAM S&T CENTRE)
NEW DELHI, INDIA



ACADEMY OF SCIENTIFIC RESEARCH AND
TECHNOLOGY (ASRT)
CAIRO, EGYPT

BACKGROUND

The *Sustainable Development Goal (SDG) – 6* aims to achieve universal and equitable access to safe and affordable drinking water for all by 2030 and improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and pollutants. The Goal also calls for implementation of integrated water resources management at all levels, including through trans-boundary cooperation and expand international cooperation and capacity-building support to developing countries in water and sanitation-related programmes and activities.

In this connection, it is important to note that the use of water contaminated with Arsenic for drinking, food preparations and irrigation of food crops poses the greatest threat to public health. The risk of Arsenic contamination in ground water continues to increase in many parts of the world, especially in the developing countries. Its sources and effects are multiple and its diffusion in natural resources including food and groundwater requires a multipronged assessment and appropriate policy initiatives for its mitigation.

So far, very few efforts have been made on the removal of Arsenic from ground waters in many developing countries. While a number of technologies for Arsenic removal have been developed in different parts of the world, variations in sources and characteristics of Arsenic polluted groundwater should be considered in order to find an appropriate cost effective technological solution for the same. In addition, differences in the socio-economic and literacy conditions of people in the developing countries also need to be considered. Based on the assessment, efforts should be made for improving the effectiveness of Arsenic removal, making the technology user friendly, overcoming maintenance problems, reducing the cost of the system, and resolving the toxic sludge management issues.

THE TRAINING PROGRAMME

In order to address the above issues, the Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) is implementing a multilateral collaborative project entitled **“Reducing Arsenic Exposure from Food and Water in Developing Countries – A Roadmap for Technological Solutions for the Future”** with partial financial support from G - 77 under its Perez-Guerrero Trust Fund (PGTF). The project aims to cope with the serious consequences of Arsenic contamination of ground water in developing countries and provide a roadmap for low cost technological solutions for the removal of Arsenic from the groundwater in order to minimize the exposure of people to this toxic element through food and water. The implementation of the project is being monitored by the UN Office for South-South Cooperation (UNOSSC), New York, USA.

As a part of the Project, the NAM S&T Centre will organize an **International Training Programme** on "**Low Cost Technologies for Arsenic Removal from Groundwater**" in partnership with the Academy of Scientific Research & Technology (ASRT), Egypt and the National Research Centre (NRC) of Egypt with participation of experts and policy makers from various developing countries including the scientists and researchers from the Egyptian institutions.

OBJECTIVES OF THE TRAINING PROGRAMME

The Training Programme will have the objectives to facilitate exchange of knowledge and expertise; capacity building of the innovators, potential technopreneurs, scientists and policy makers of the Developing Countries; and to facilitate transfer of low cost technologies for Arsenic removal from groundwater.

TOPICS TO BE COVERED

Key topics to be discussed during the Training Programme may include:

- (1) Arsenic Exposure on Food and Water in Developing Countries;
- (2) Health Issues due to Arsenic Contamination;
- (3) Water Purification Technologies Currently being used in Various Countries;
- (4) Technological Options for Removal of Arsenic from Groundwater; Non-conventional, low cost removal methods for water treatment;
- (5) Cost effective materials for water treatment;
- (6) Innovation in water treatment technology;
- (7) New technologies in water desalination;
- (8) Any other relevant issues.

PARTICIPANTS

Thirteen Member Countries of the NAM S&T Centre, viz. Bhutan, Egypt, India, Iran, Malaysia, Myanmar, Nepal, Nigeria, Palestine, South Africa, Sri Lanka, Togo and Zambia which had earlier confirmed their participation in various activities of this collaborative project are expected to nominate their Country Coordinators designated for this project or their representatives - to attend the Training Programme. Other Member Countries of the NAM S&T Centre and any other developing countries are also welcome to nominate representatives for participation in the Training Programme. The officials currently engaged in water extraction & purification and community water supply & management in their countries; and scientists/researchers working in relevant areas will be preferred.

PROGRAMME

The International Training Programme will be held during **5-6 September, 2023** in Cairo, Egypt. The session wise programme would be sent to the participants in due course.

VENUE

The Training Programme would be organized **in Grand Nile Tower**, Cairo, Egypt.

RESOURCE PERSONS

Resource persons for the Training Programme will comprise eminent experts from Egypt, India and other developing countries.

ABOUT THE ORGANISERS

NAM S&T Centre, India

The Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre; www.namstct.org) is an inter-governmental organization with a membership of 47 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India in pursuance of recommendations of various NAM Summit Meetings for the promotion of South-South Cooperation in Science and Technology. The Centre undertakes a variety of programmes, including organization of workshops, symposiums, meetings & training courses and implementation of collaborative projects and offers short-term research fellowships to the scientists and technologists from the developing countries in association with various Centres of Excellence. The Centre also brings out technical books and other scientific publications in different subjects. These activities provide opportunity for Scientist-to-Scientist contact and interactions; familiarizing participants on the latest developments and techniques in the subject areas; identification of the requirements of training and expert assistance; locating technologies for transfer between the members and other developing countries, dissemination of S&T information etc. The Centre also encourages academic-research-industry interactions in the developing countries through its “NAM S&T-Industry Network”.

ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY (ASRT), Egypt

The *Academy of Scientific Research & Technology (ASRT)*, <http://www.asrt.sci.eg/> is a non-profit organization, established in September 1971 by the Presidential Decree No. 2405 as the national authority responsible for Science & Technology in Egypt. In 1998, ASRT was reorganized by the Presidential Decree No. 377 that defined its mission, function and activities. ASRT is the Egyptian House of Expertise. It brings together outstanding Egyptian scientists and experts from universities, research institutions, private sector, NGOs, policymakers and prominent Egyptian Scientists in Diaspora to deliberate on problems being faced by the country, propose and carry out scientific studies and create future strategic basic plans to tackle these

problems. ASRT adopts a comprehensive plan for developing Egyptian S&T to support relevant national ministries and research institutions in creating an integrated system of scientific research together for increasing the number of trained scientists in Egypt, and giving science a leading role in the country's development and knowledge based economy. ASRT also promotes and encourages female and youth participation in S&T and scientific leadership.

National Research Centre (NRC), Egypt

The National Research Centre (NRC), Egypt was established in 1958. It is considered one of the largest multidisciplinary Governmental research centers in Egypt, Africa and the Middle East, that works in most branches of science except social sciences. NRC is 70% of the main power of the Ministry of Scientific Research. NRC has 14 institutes and 109 departments in all branches of knowledge and technology with more than 7,000 employees including researchers and administrative staff. NRC has 5 pilot plants for research and development for scaling up the research outputs. NRC generated 300 patents in emerging technology sectors such as: life sciences, nanotechnologies, new material, biomedical environment, and agri-food covering the predominant areas of industries, health, environment, pharmaceuticals, agriculture, and engineering.

IMPORTANT DATES

Date of the Program	5-6 September 2023
Submission of Application Starts	07 July 2023
Last Date for Submission of Application	11 August 2023
Confirmation to Selected Applicants	18 August 2023

English will be the official language of the Program.

SUBMISSION OF NOMINATIONS

Applications for participation may be submitted in the prescribed form (as given below) to the NAM S&T Centre as early as possible but latest before **August 11, 2023**. The form should be completed in all respects and sent along with other documents as e-mail attachments to the NAM S&T Centre at namstcentre@gmail.com.

Applicants from Egypt should submit their documents to ASRT, Cairo.

The following documents must be submitted as e-mail attachments:

- a) Filled in Nomination Form (Blank form **enclosed**);

- b) Opinion (a short paragraph; **in MS-Word format**) how the applicant qualifies to participate in the Training Programme;
- c) A short CV (**maximum two pages; in MS-Word format**) [Format **Enclosed**]
- d) Copy of the relevant pages of the passport

Note: The documents at (b), (c) above must be in **MS-Word format** only; PDF or image files will not be accepted. Hard copies of the Application Form and other documents are **NOT REQUIRED** to be submitted.

LOCAL HOSPITALITY AND TRAVEL

Local hospitality in Cairo including accommodation, meals and local transport will be provided free of cost to the foreign participants sponsored by the NAM S&T Centre from **4th September 2023 to 7th September 2023** (i.e. from one day before to one day after the completion of the Training Programme). The participants are requested to book their flights accordingly; otherwise, they will have to make their own arrangements of stay beyond these dates.

FINANCIAL ARRANGEMENTS FOR TRAVEL

The financial terms and arrangements for international travel will be conveyed to individual foreign participants on receipt of their Application and other documents.

ENTRY FORMALITIES AND IMMIGRATION

Participants of the Training Programme must be in possession of a current passport or any other internationally recognised travel document, which must have a period of validity of at least six months beyond the period of stay in Egypt and must be endorsed for travel to Egypt.

Participants should have a valid visa for entry into Egypt. The Egyptian diplomatic mission located in the country of the participant should be approached for obtaining an entry visa. For a large number of countries, however, online visa application is required. If required, the organisers will facilitate the issuance of visa by providing the participants with an official letter of invitation.

NOTE:

The governments / institutions of the selected participants will be required to bear the following costs:

- All expenses in the home country incidental to travel abroad, including expenditure for passports, visa fee, required medical examinations, vaccinations and miscellaneous expenses such as internal travel to the airport of departure in the home country.
- Salary and other related allowances for the participants during the period of the Training Programme.
- Cost of medical insurance to cover the period of participation in the Training Programme.

The organizers of this Training Programme will not assume responsibility for the following expenditure in connection with the participant's attendance in the Training Programme:

- Expenses incurred with respect to any insurance, medical bills or hospitalization fees.
- Compensation in the event of death, disability or illness of participants.
- Loss of personal belongings or compensation for damage caused to them by climatic or other conditions.
- Other costs, including airport tax and excess baggage.

SECRETARIAT

CONTACT DETAILS

NAM S&T CENTRE

Dr. Amitava Bandopadhyay

Director General

Centre for Science & Technology of the Non-Aligned and other Developing Countries
(NAM S&T Centre),

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New Delhi – 110003, India

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E-mail: namstcentre@gmail.com

Website: <http://www.namstct.org>

ASRT

Prof. Dr. Mahmoud M. Sakr,

Vice President, NAM S&T Centre and

President, Academy of Scientific Research and Technology (ASRT),

101 Kasr Al-Ainy St.,

Cairo, **Egypt**

Ph: +202 27921286/1287 (O)

E-mail: asrt.organizations@gmail.com

NRC

Prof. Dr. Enas Aboutaleb,

Former Chief Executive Officer of Egyptian Environmental Affairs Agency (EEAA),
Ministry of Environment;

Prof. of Wastewater Treatment Technologies,

Water Research and Pollution Control Department,

Environmental Science Division,

National Research Centre (NRC),

Egypt

E-mail: enas_aboutaleb@yahoo.com

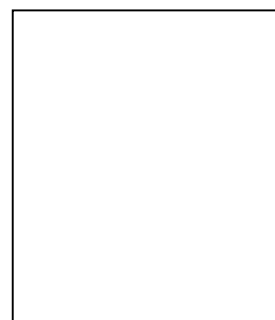
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APPLICATION FORM

PLEASE TYPE OR USE BLOCK CAPITALS
(NO COLUMN SHOULD BE LEFT BLANK)



SECTION -A

(To be filled in by the Nominee)

1. Name (Prof. /Dr. /Mr. /Mrs. /Ms.):
(As in Passport)
2. Father's / Spouse Name:
3. Designation (Position held):
4. Nationality:
5. Date of Birth:Place of Birth (City).....(Country).....
6. Passport No:Place of issue:
Date of Issue: Valid up to:
(Please attach copies of the relevant pages of your Passport)
7. Name of the Parent Institution (Employer):
Full Address (Office):.....
.....
Phone: Fax:
E-mail:

8. Full Address (Home):
-
- Phone: Mobile:
- E-mail:
9. Educational Qualifications:
- Highest Degree: Year of Award:
- University:
- Field of Study.....
10. Brief Biodata (CV):
-
- (**Maximum two pages, in MS-Word**; to be prepared in *enclosed* Format)
11. Opinion (a short paragraph; **in MS-Word format**) how you qualify to participate in the Training Programme
- Date: Signature:

SECTION –B: ENDORSEMENT BY THE NOMINATING AUTHORITY

(The Applicant in a member country of the NAM S&T Centre must get the Nomination Form endorsed by the Focal Point of the Centre in their country if they wish to take advantages extended to the official nominee of the country. For the list of member countries and names/ addresses of the Focal Points please visit the Centre’s official website; www.namstct.org.)

Signature:

Name (in full):

Designation:

Date:

SEAL

Enclosures:

- 1) Scanned copies of the relevant pages of the Passport
- 2) A Brief CV (maximum two pages, as per **attached** format; in MS Word only)
- 3) Opinion (a short paragraph; **in MS-Word format**) how you qualify to participate in the Training Programme.



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CURRICULUM VITAE

1. Personal Details:

Name: (Prof./Dr./Mr./Mrs./Ms.)

Designation: Position Title

Present Employer: Full Address (Office)

City/State/Province:

Country:

Nationality:

Date of Birth: dd/mm/yyyy

Proficiency in English Language:

Permanent Address: Full Address (Home)

Gender:

Contact: Mobile:

Telephone Office:

Fax:

E-mail:

Alternative e-mail:



2. Academic Qualifications: In chronological order

Qualification Awarded Degree/Diploma/Certificate	Major Subject	University/ Institution	Year (From-To)

3. Professional Experience: In chronological order

Organisation/ Institution	Position Title	Year (From-To)	Nature of duties

Total number of years of relevant experience –

4. Research Experience: In chronological order

Research Title	Duration	Status

5. Administrative Experience: Not more than 100 words

6. Experience with respect to the title of the Training Programme:

7. Details of Awards/Recognitions (if any):

8. Any other information: Not more than 50 words

9. Recent Publications: Only five recent publications to be mentioned
