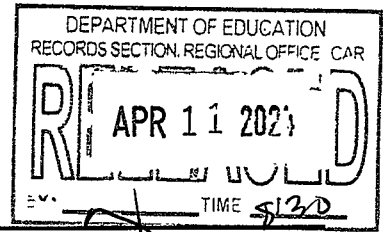




Republic of the Philippines  
**Department of Education**  
CORDILLERA ADMINISTRATIVE REGION



05 April, 2024

**REGIONAL MEMORANDUM**

No. 204.2024

**INVITATION TO THE JOINT IAFSW-MiSAC COMPETITION 2024 ON  
NEGLECTED TROPICAL DISEASES AND CLIMATE CHANGE**

To: Assistant Regional Director  
Schools Division Superintendent  
Heads of Public and Private Secondary Schools  
All Others Concerned

1. The South East Asian Ministers of Education Organization (SEAMEO) Regional Center for Sufficiency Economy Philosophy for Sustainability (SEPS) is inviting Grade 7-9 learners to take part in the Joint International Association for the Future STEM Workforce (IASFW) - Microbiology in Schools Advisory Committee (MiSAC) competition on Neglected Tropical Diseases (NTD) and Climate Change.
2. Objective of the competition is to design an illustrated, web-page report for teenagers to raise their awareness of NTDs. Deadline for the submission of entries is on May 1, 2024. Competition guidelines and details, including prizes is found at <https://ntds.iafsw.org>
3. Participation to the competition is voluntary and non-mandatory.
4. For more information on the contest, interested participants may contact the organizers through email [info@iafsw.org](mailto:info@iafsw.org) and [omjai@iafsw.org](mailto:omjai@iafsw.org) or visit the official website at <https://ntds.iafsw.org>.
5. For information and guidance.

  
**ESTELA P. LEON-CARIÑO EdD, CESO III**  
Director IV/Regional Director

ESSD/GCD/epm  
Ref: RECORDS-MWLA-24-297  
March 22, 2024



Address: DepEd-CAR Complex, Wangal, La Trinidad, Benguet, 2601  
Telephone No: (074) 422 – 1318  
Email Address: [car@deped.gov.ph](mailto:car@deped.gov.ph)



DepEd Tayo Cordillera

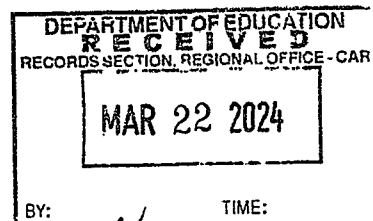


<https://depedcar.ph>



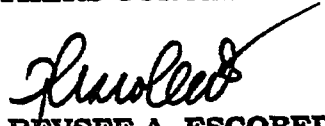
Republika ng Pilipinas  
Department of Education

OFFICE OF THE UNDERSECRETARY FOR OPERATIONS



MEMORANDUM  
OM-OUOPS-2024-03. 02285

TO : REGIONAL DIRECTORS  
SCHOOLS DIVISION SUPERINTENDENTS  
ALL OTHERS CONCERNED

FROM :   
ATTY. REVSEE A. ESCOBEDO  
Undersecretary for Operations

  
DR. DEXTER A. GALBAN  
Assistant Secretary for Operations

SUBJECT : INVITATION TO THE JOINT IAFSW-MISAC COMPETITION 2024  
ON NEGLECTED TROPICAL DISEASES AND CLIMATE CHANGE

DATE : March 20, 2024

This is in reference to the attached official letter dated March 5, 2024 from the SEAMEO (Southeast Asian Ministers of Education Organization) Regional Centre for Sufficiency Economy Philosophy for Sustainability (SEPS) inviting schools to participate in the Joint International Association for the Future STEM Workforce (IAFSW) – Microbiology in Schools Advisory Committee, UK (MiSAC) Competition 2024 on Neglected Tropical Diseases and Climate Change.

The competition aims to raise awareness among teenagers about neglected tropical diseases (NTDs), their impact on global health, and how climate change affects efforts to control, prevent, or eliminate NTDs.

In this light, we would like to respectfully request that you extend this invitation to all learners from Grades 7-9 within your respective jurisdictions. **The deadline for submission of entries is on May 1, 2024.**

Kindly note that participation to the competition is **voluntary** and **non-mandatory**. For more information, you may reach out to the organizers directly through e-mail at [info@iafsw.org](mailto:info@iafsw.org) and [omjai@iafsw.org](mailto:omjai@iafsw.org) or you may visit the official website at <https://ntds.iafsw.org/>. Attached herewith is the competition flyer for your reference.

**Copy Furnished:**  
Francis Cesar B. Bringas, Assistant Secretary for Operations

OASOPS/CEA



Room 101, Rizal Building, DepEd Complex, Meralco Avenue, Pasig City 1600  
Telephone Nos.: (02) 8633-5313; (02) 8631-8492  
Email Address: [oure@deped.gov.ph](mailto:oure@deped.gov.ph) | Website: [www.deped.gov.ph](http://www.deped.gov.ph)

Doc. Ref. Code	OM-OUOPS	Rev	01
Effectivity	03.23.23	Page	1 of 1





**SEAMEO Regional Centre for Sufficiency Economy Philosophy for Sustainability**  
11<sup>th</sup> fl. Natural History and Environment Bldg., 928 Sukhumvit Road, Phra Khanong, Klong Toei, Bangkok 10110, Thailand

SEPS 02/C076-086/24

5 March 2024

**Subject: Invitation to Participate in the MiSAC-IAFSW Competition 2024 on Neglected Tropical Diseases and Climate Change**

Dear Dr Margarita Consolacion C Ballesteros,

We would like to extend a warm invitation to the schools within your network to take part in the Joint IAFSW-MiSAC Competition 2024 on Neglected Tropical Diseases and Climate Change.

Organized by the International Association for the Future STEM Workforce (IAFSW), the Microbiology in Schools Advisory Committee, UK (MiSAC), and the SEAMEO Regional Centre for Sufficiency Economy Philosophy for Sustainability (SEAMEO SEPS), this esteemed event aims to heighten awareness among teenagers about the significant impact of NTDs on global health and their correlation with climate change. The submission deadline for entries is May 1st, 2024.

It would be appreciated if you could share this invitation to the secondary/high schools and colleges under your network. For detailed information, please refer to the attached competition flyer or visit an official website at <http://mids.iafsw.org>.

We are confident that this competition will immerse your students in scientific exploration and contribute to raising awareness of global health challenges. Your school's active participation is crucial in making this event a success. If you have any inquiries or require further assistance, please do not hesitate to reach out to the competition contact at [info@seameo.org](mailto:info@seameo.org) and [info@iafsw.org](mailto:info@iafsw.org).

We sincerely appreciate your support and look forward to the enthusiastic involvement of your students in this intellectually stimulating competition.

Yours sincerely,

Duriya Amataviviat  
Centre Director

Dr Margarita Consolacion C Ballesteros  
Director, International Cooperation Office  
Department of Education  
Philippines

**Attachment: Competition flyer**



For the attention of  
the Head of Biology

**Joint IAFSW-MISAC Competition 2024**

# Neglected Tropical Diseases and Climate Change

Not later than:  
May 1, 2024

## Aim of the Joint IAFSW-MISAC Competition

To develop an understanding among teenagers of the impact of neglected tropical diseases (NTDs) on global health, and how climate change may impact their distribution around the world.

## Background

NTDs have not been widely studied, though they affect over 1.7 billion people on our planet. They are usually found in tropical areas, particularly in the southern hemisphere. They largely affect impoverished communities, often in remote areas. Poor water quality, sanitation, hygiene and healthcare in these areas heighten their impact. Twenty conditions have been designated NTDs, and most are caused by a parasitic, bacterial, viral or fungal pathogen. Many are spread by various animals, that act as vectors, while others pass directly between infected people.

NTDs cause serious illnesses, damaging patients' attendance at school or work, and may be fatal. Some also cause disfigurement, often resulting in social stigma and isolation. In addition, some NTDs also affect animals, which can harm farming practices. Both wild and domestic animals can act as reservoirs of infection (eg, game animals for sleeping sickness) or directly transmit the infection to humans (eg, dogs spread rabies). The economic impact of NTDs is huge; in affected areas, they trap vulnerable populations in cycles of poverty, costing developing countries billions of pounds each year.

NTDs are preventable and treatable but affected communities often lack the resources to tackle them well. In general, effective vaccines against NTDs are not yet available. Treatment options are limited, may have significant side effects, or are met with pathogen resistance. In 2020, the World Health Organisation published a roadmap to control, prevent or eliminate the NTDs by 2030 and progress is being made.

However, climate change may make this more difficult. Rising temperatures and changes in rainfall patterns may alter vector habitats, allowing them to expand into new areas. Warmer winters may allow arthropod vectors to survive longer. Extreme weather events also displace people, resulting in overcrowding within temporary shelters. These can increase the spread of NTDs and may bring people and vectors closer together, helping the transmission of NTDs. Extreme weather can also disrupt healthcare, housing, sanitation and food security, and the changing climate increases poverty, malnutrition and poor health, worsening the effects of NTDs.

## Object of the competition

You are required to design an illustrated, web-page report for teenagers to raise their awareness of NTDs.

- Select one neglected tropical disease.
- Describe the disease in English, including its symptoms, where it is found in the world, preventative measures and treatments, and the impact it has on affected people and communities.
- Describe the pathogen that causes the disease and what is known about how it is transmitted.
- Discuss how climate change may alter the spread, global distribution and impact of the disease.

## Format of entries

- Students may produce your entry either by hand or computer.
- Students use a single A3 sheet of paper or two A4 sheets taped together (a combination of diagrams/photographs/graphs), scan the paper and save it in PDF format.
- Teachers are required to register and then submit the students' PDF files at <https://ntds.lafsw.org> no later than May 1, 2024.
- Teachers must provide hard copies of the entries and deliver them to the following address: Wisdom Park Bldg. 3 Sol 23 Chaloom Phrakiat Ratchakan Thi 9 Road, Nongbon, Prawet, Bangkok 10250 Thailand, ensuring it reaches us no later than May 15, 2024.
- The entry may be submitted by an individual or a group of not more than four students.

## Prizes

Students: 1st : \$120 2nd : \$60 3rd : \$30

A certificate will be awarded to each student submitting an entry of scientific merit. The results, winning entries and a report of the competition will be published on the IAFSW website competition pages at <https://www.lafsw.org>

## Five top tips

1. Use the scientific name of any pathogens you mention.
2. Don't forget that the first name (genus) begins with an upper-case letter and the second name (species) has a lower-case initial letter (eg *Trypanosoma brucei*). This can be abbreviated, for example, to *T. brucei* after its first use.
3. Use italics for the scientific name - or underline it if your entry is hand-written.
4. Use your own words because plagiarism (which is cheating) will be penalised.
5. For data and other material used to illustrate your entry, provide information of their sources.

## What makes a good web page?

Effective web pages rely on being not only informative but attractive, lively, well-designed and often amusing, in order to make an immediate visual impact. This can be achieved by using photographs, diagrams, drawings, plus data and sources of further information. Make the presentation of your entry entertaining for its intended audience - teenagers.

## Website articles

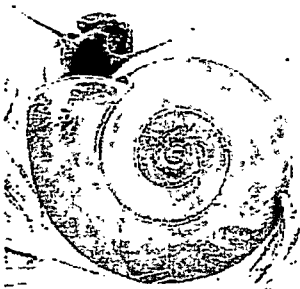
- <https://www.who.int/news-room/fact-sheets/detail/neglected-tropical-diseases>
- <https://www.who.int/news-room/fact-sheets/detail/leishmaniasis>
- <https://www.who.int/news-room/fact-sheets/detail/human-african-trypanosomiasis>
- <https://www.who.int/news-room/fact-sheets/detail/rabies>
- <https://www.who.int/news-room/fact-sheets/detail/schistosomiasis>
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- <https://www.who.int/news-room/fact-sheets/detail/brucellosis>
- <https://www.who.int/news-room/fact-sheets/detail/anthrax>



Sand fly: vector that transmits the parasite *Leishmania*, which causes Leishmaniasis  
Image by Elizabeth Gatz, Hector Diaz Albar



*Trypanosoma brucei*: parasite (yellow) that causes Human African Trypanosomiasis  
Image © Centre for Disease Control and Prevention (CDC) by 401



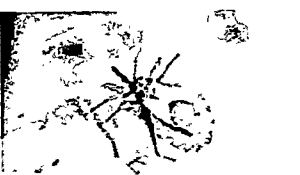
Freshwater snail: vector that transmits the schistosome parasitic worm.  
Image: World Health Organization



*Mycobacterium leprae*: bacteria (red) that cause leprosy.  
Public Health Image Library CDC, US Government public domain



Vampire bat: a vector that transmits rabies virus in Peru  
Image: David Stecher/Utah Benavides, University of Glasgow



*Triatoma pallidipennis* ("kissing bug"): vector of the parasite *Trypanosoma cruzi*,  
Image by © E. Borecki a. Fl. / iStockphoto.com / James Gathany