

様式 A-1  
(FY2025)

R7 年 12 月 18 日

## サイエンス・ダイアログ 実施報告書

1. 学校名：名古屋市立向陽高等学校
2. 講師氏名： Dr. Zy Harifidy RAKOTOARIMANANA
3. 講義補助者氏名：
4. 実施日時：2025 年 12 月 16 日（火） 14:30 ～ 15:50
5. 参加生徒：1 年生 45 人、 2 年生 2 人、 年生 人（合計 47 人）  
備考：国際科学科の生徒 39 名、
6. 講義題目：From River to Globe: Madagascar's Story of Water and Wonder - Discover the power of water, the magic of science, and your role in it all-
7. 講義概要：マダガスカル水域の水、環境問題について
8. 講義形式：  
対面 ・ オンライン（どちらか選択ください。）
  - 1) 講義時間 70 分 質疑応答時間 5 分
  - 2) 講義方法（プロジェクター使用による講義、実験・実習の有無など）  
プロジェクター使用による講義
  - 3) 事前学習  
有 ・ 無（どちらか選択ください。）  
使用教材：講義の概要・キーワードリストのプリントを事前に配布
9. その他特筆すべき事項：

Form B-2  
(FY2025)  
Must be typed

Date (日付)  
16/12/2025  
(Date/Month/Year: 日/月/年)

**Activity Report -Science Dialogue Program-**  
(サイエンス・ダイアログ 実施報告書)

- Fellow's name (講師氏名): RAKOTOARIMANANA Zy Harifidy (ID No.P25104)

- Name and title of the lecture assistant (講義補助者の職・氏名)

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- Participating school (学校名): Nagoya Municipal Koyo Senior High School

- Date (実施日時): 16/12/2025 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目): From River to Globe: Madagascar's Story of Water and Wonder  
Subtitle: Discover the power of water, the magic of science, and your role in it all.

- Lecture format (講義形式):

◆  Onsite ・  Online (Please choose one.)(対面 ・ オンライン)((どちらか選択ください。))

◆ Lecture time (講義時間) 50 min (分), Q&A time (質疑応答時間) 10 min (分)

◆ Lecture style(ex.: used projector, conducted experiments)

(講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))

used projector \_\_\_\_\_

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

Madagascar, the world's fourth-largest island located in southeastern Africa, is known for its unique biodiversity, rich culture, and environmental challenges shaped by its water systems. Madagascar possesses abundant water resources, but their distribution is uneven across regions, affecting both water availability and management practices. Moreover, factors such as climate change, land-use changes, and population growth exacerbate these challenges, leading to increased risks of water scarcity, extreme events (such as floods and droughts), and food insecurity. My current research aimed to assess the effects of deforestation and climate change on hydrological processes in the Betsiboka basin Madagascar. Under the SATREPS VaryAla project output4, we quantify the forest functions supporting stable paddy production in Ankarafantsika National Park. My research interest focus on water resources assessment across the major river basins in Madagascar and evaluate the impact of global change. This presentation examines the role of water and forest in Madagascar's ecosystems and human communities, highlighting the island's environmental challenges and their global relevance. Additionally, it considers how science, language, and cross-cultural understanding can inspire curiosity and drive

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solutions to environmental challenges.

◆Other noteworthy information (その他特筆すべき事項):

- Impressions and comments from the lecture assistant (講義補助者の方から、本プログラムに対する意見・感想等がありましたら、お願いいたします。):



# How Are Forest and Cropland Changing in Madagascar Using High-Resolution Data

May 2017-2018



We assess past and future forest and cropland changes in the Berakopa basin and the Mantadia National Park (MNP).



Forest expansion will not occur at the expense of agricultural land.

