

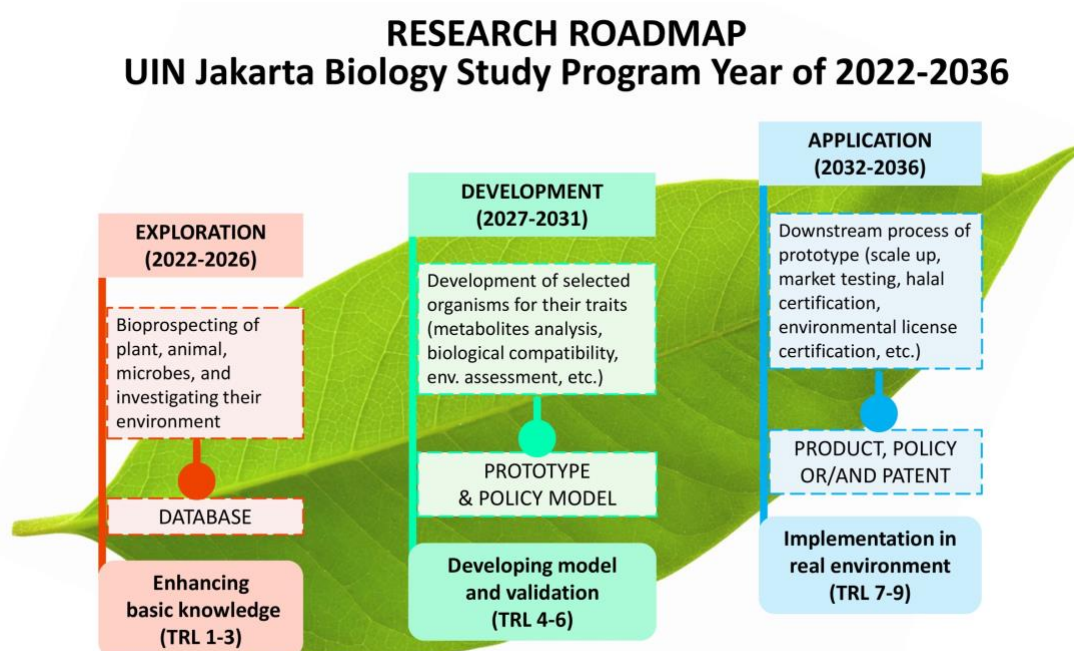
RESEARCH AREA

Introduction

As a tropical megabiodiversity country in Asia, Indonesia has abundant natural resources that can aspire to achieve the Sustainable Development Goals (SDGs). For this reason, Biology Study Program Faculty of Science and Technology UIN Syarif Hidayatullah Jakarta concentrates its research themes on biodiversity, biotechnology, and sustainable environment. Maximizing their existing potencies and facilities, those special fields are still integrated with basic science themes of plant, animal, microbe, and interdisciplinary with other related sciences. Another uniqueness of this study program is the integration of biology with Islamic and moral values, which follows the faculty's goal of producing graduates who are faithful, God-fearing, virtuous, professional, and competent in science and technology. In addition, this study program, as a member of the Indonesian Biology Consortium (KOBI), also supports the consortium's main vision to increase the Indonesian Biodiversity Index (IBI) score nowadays and in the future. Accompanied by the spirit of cooperation with national and international networks, Biology Study Program of UIN Jakarta aims to contribute consistently to the advancement of knowledge and global competitiveness through the research roadmap outlined for 2022-2036.

Research Roadmap

Research activities in Biology Study Program follow a roadmap of 3 stages during 2022-2036, as shown in the figure below.



In the initial stage, in 2022-2026, activities are prioritized on natural resource exploration, namely bioprospecting of plants, animals, and microbes, accompanied by research related to their environment, so the output is a database. The research activities are planned to meet the Technology Readiness Level (TRL)1-3, strengthening basic knowledge. In the development stage, in 2027-2031, research activities are the development of organisms selected in the previous stage, so the output is a prototype or policy model. These activities are expected to meet the TRL 4-6, which develops the model and its validation. In the next stage, in 2032-2036, the prototype or policy produced from the previous stage is implemented while increasing the scale up of production, market testing, halal certification, environmental feasibility, and so on, so that tested products or policies are produced, as well as patents. These activities are expected to meet the TRL 9, the implementation in the actual environment.

Research Consortia

To achieve the research goals outlined in the roadmap, researchers are organized into consortia based on their educational background, interests, and expertise. The consortium fields are comprised of environmental science, animal science, plant science, and microbiology. Collaborating with fellow researchers within the consortium or among consortia, research can be pursued according to the directions in the roadmap. The description and participants of the consortium are written in the section below.

Environmental Science Consortium

Research area : General ecology, Environmental Biology, Ecology of Change, Conservation Biology, and Interdisciplinary approach (Marine Biology, Terrestrial Ecology, Environmental Impact Assessment, Natural Resource Management and Dynamics of Ecosystem Change).

Research goal : The results of environmental science research are expected to support the achievement of Sustainable Development Goals (SDGs).

Researchers : Prof. Dr. Lily Surayya Eka Putri, M.Env.Stud. (Environmental Biology)
Assoc. Prof. Dr. Agus Salim, S.Ag, M.Si. (Ecology of Change)
Assoc. Prof. Dr. Fahma Wijayanti, M.Si. (Ecology and Conservation)
Ir. Etyun Yunita, M.Si. (Conservation Biology)

Plant Science Consortium

Research area : Biological subjects of plant, including systematics, molecular biology, physiology, ecology, and their interdisciplinary approach, such as plant biotechnology, ethnobotany, phytopathology, agriculture, etc.

Research goal : The results of plant bioscience research are expected to play a role in the utilization and management of plant resources.

Researchers : Assoc. Prof. Dr. Dasumiati, M.Si. (Plant Physiology)
Assoc. Prof. Dr. Priyanti, M.Si. (Plant Systematics)
Ardian Khairiah, M.Si. (Ethnobotany)

Animal Science Consortium

Research area : Biological subjects of animal, including systematics, molecular biology, physiology, ecology, interdisciplinary approach such as animal health, embriology, parasitology, and specific major such as entomology, malacology, primatology, etc.

Research goal : The results of plant bioscience research are expected to play a role in management of animal diversity in supporting their conservation.

Researchers : Assoc. Prof. Dr. Fahma Wijayanti, M.Si. (Animal Ecology)
Dr. drh. Raden Rara Bhintarti Suryohastari, M.Biomed. (Veterinary)
Narti Fitriana, M.Si. (Entomology)
Fahri Fahrudin, M.Si. (Animal Physiology)

Microbiology Consortium

Research area : Biological subjects of microorganisms, including biodiversity, molecular biology, physiology, ecology, interdisciplinary approach such as microbial biotechnology, enviromental microbiology, food microbiology, medical microbiology, biochemistry, and specific major such as bacteriology, mycology, phycology, etc.

Research goal : The results of microbiology research are expected to collect potential microorganisms from natural sources for applications in various fields of environment, food, and health.

Researchers : Prof. Dr. Megga Ratnasari Pikoli, M.Si. (Environmental Microbiology)
Assoc. Prof. Dr. Nani Radiastuti, M.Si. (Mycology)
Dr. drh. Raden Rara Bhintarti Suryohastari, M.Biomed. (Biotechnology)
Arina Findo Sari, M.Si. (Bacteriology)
Prof. Dr. La Ode Sumarlin. (Biochemistry)
Assoc. Prof. Dr. Sri Yadi Chalid, M.Si. (Food Biochemistry)
Anna Muawanah, M.Si. (Food Biochemistry)

Research Record

Most research produced by the lecturers of the Biology Study Program was recorded in publications indexed in databases of SINTA and Scopus as listed below.

No.	Lecturer/Researcher	SINTA ID	Scopus ID
1.	Prof. Dr. Lily Surayya Eka Putri, M.Env.Stud.	https://sinta.kemdikbud.go.id/authors/profile/258244	https://www.scopus.com/authorid/detail.uri?authorId=54394053800
2.	Assoc. Prof. Dr. Agus Salim, S.Ag, M.Si.	https://sinta.kemdikbud.go.id/authors/profile/56224	https://www.scopus.com/authorid/detail.uri?authorId=57194065243

3. Assoc. Prof. Dr. Fahma Wijayanti, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6023707> <https://www.scopus.com/authorid/detail.uri?authorId=57194226769>
4. Ir. Etny Yunita, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6028618> <https://www.scopus.com/authorid/detail.uri?authorId=57214218228>
5. Assoc. Prof. Dr. Dasumiati, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/258246> <https://www.scopus.com/authorid/detail.uri?authorId=57224907283>
6. Assoc. Prof. Dr. Priyanti, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6028986> <https://www.scopus.com/authorid/detail.uri?authorId=57191106922>
7. Ardian Khairiah, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6754931> <https://www.scopus.com/authorid/detail.uri?authorId=57195205085>
8. Dr. drh. Raden Rara Bhintarti Suryohastari, M.Biomed. <https://sinta.kemdikbud.go.id/authors/profile/258247> <https://www.scopus.com/authorid/detail.uri?authorId=59188414000>
9. Narti Fitriana, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/55983> <https://www.scopus.com/authorid/detail.uri?authorId=57226845601>
10. Fahri Fahrudin, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6746766> <https://www.scopus.com/authorid/detail.uri?authorId=557203319112>
11. Prof. Dr. Megga Ratnasari Pikoli, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/55980> <https://www.scopus.com/authorid/detail.uri?authorId=55792776200>
12. Assoc.Prof. Dr. Nani Radiastuti, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6041358> <https://www.scopus.com/authorid/detail.uri?authorId=57193711002>
13. Arina Findo Sari, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6937670> <https://www.scopus.com/authorid/detail.uri?authorId=57212081619>
14. Prof. Dr. La Ode Sumarlin, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6195128> <https://www.scopus.com/authorid/detail.uri?authorId=57193714751>
15. Assoc. Prof. Dr. Sri Yadi Chalid, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6022837#!> <https://www.scopus.com/authorid/detail.uri?authorId=5721170023>
16. Anna Muawanah, M.Si. <https://sinta.kemdikbud.go.id/authors/profile/6046244> <https://www.scopus.com/authorid/detail.uri?authorId=57202387797>