



IAU Office of Astronomy for Development Annual Call for Proposals 2021: Stage 1

Deadline for Stage 1 application is end of day, May 31, 2021 (midnight UTC-12)

If you need support for accessibility or translations of the call and documents, please contact us at projects@astro4dev.org so we may try to make suitable arrangements.

Kindly read through all the information presented here before proceeding to the application form.

This call for proposals is for projects to be implemented in 2022. The COVID-19 global pandemic will likely continue to affect all of us for the time being. Please bear this in mind when proposing your project, and build in mitigation strategies for impacts of COVID.

- INTRODUCTION
- WHAT IS ASTRONOMY FOR DEVELOPMENT ?
- BEFORE YOU APPLY
- APPLICATION
- SELECTION
- TIMELINE
- APPLY ONLINE
- ADDITIONAL INFORMATION

INTRODUCTION

The global Office of Astronomy for Development (OAD) is a joint partnership between the International Astronomical Union (IAU) and the South African National Research Foundation (NRF) with the support of the Department of Science and Innovation (DSI). The mission of the OAD is to further the use of astronomy, in all its aspects, as a tool for development.

One of the primary ways the OAD implements its mission is through the **Annual Call for Proposals**. Every year, the OAD invites proposals for projects that use astronomy as a tool to address one or more challenges related to sustainable development. The call for proposals is open to anyone from anywhere in the world. The OAD Call for Proposals is conducted in two stages, where only a limited number of proposals from Stage 1 will be invited to submit a Stage 2 proposal.

WHAT IS ASTRONOMY FOR DEVELOPMENT ?

At the OAD, we work towards development through astronomy-based interventions executed as IAU-OAD funded projects. Our development goals are framed by the United Nations [Sustainable Development Goals](#) (SDGs), which are a set of globally adopted priorities to end poverty, preserve the planet and promote peace and prosperity for all. Astronomy for Development or Astro4Dev, thus, has different objectives than the sole development or advancement of the field of astronomy itself.

Astronomy for Development, as the name implies, involves the fields of both astronomy and development. Thus, due consideration needs to be given to the guidance and involvement of experts in development and related fields. This is especially critical in our current time with the complex impacts of COVID-19.

“Astronomy for Development is about PEOPLE, not the STARS”

The OAD does not fund astronomy or astrophysics research or activities whose primary aim is to promote the field of astronomy. If you are interested in such activities, we encourage you to visit the websites of the relevant IAU structures.

- International Astronomical Union (IAU): Astronomy, astrophysics, and related scientific activities, <https://www.iau.org/>
- IAU Office for Astronomy Outreach (OAO): astronomy outreach, public engagement, and astronomy communication, <https://www.iau.org/public/oao/>
- IAU Office of Astronomy for Education (OAE): astronomy education at school level, <https://www.haus-der-astronomie.de/OAE>
- IAU Office for Young Astronomers (OYA): astronomy training at university level, https://www.iau.org/training/office_for_young_astronomers/

The OAD works closely with our sister IAU Offices mentioned above – OAO, OAE, and OYA. But the OAD itself is primarily concerned with development and not education, research or outreach. For the OAD call for proposals, we are specifically looking for projects that will have a positive impact on sustainable development. **Please note that projects may still utilize astronomy outreach or education based activities as long as they are in pursuit of development.** Proposals for education or outreach activities without a compelling case for development are not funded through this call.

BEFORE YOU APPLY

Courses & Resources

Before you apply, please visit the “[Getting Started](#)” section that provides the background on Astronomy for Development, resources and links to assist you with project design, monitoring, evidence and evaluation etc. You can take the free [online course on Astronomy for Development](#) designed to provide a helping hand to anyone who intends to submit a proposal. We have also published a [short course on “Introduction to Development Economics”](#) for those who are interested in gaining a deeper understanding.

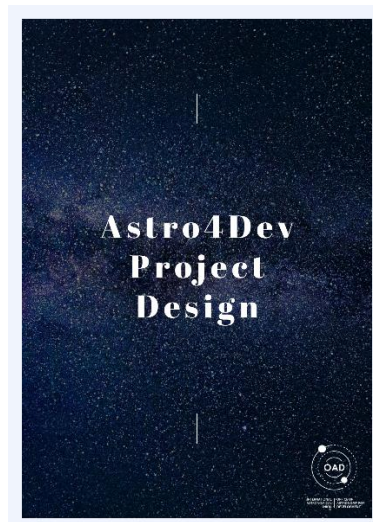
You can also search through the past projects funded by the OAD to learn about the work done around the world, to check if your idea has been tried by anyone before, and to find resources developed by other projects which could potentially be used for your project.

- [List of projects \(A-Z\)](#)
- [Projects search](#)
- [Search resources produced by past projects](#)



Getting Started with an OAD Proposal

[Learn More](#)



Course on Astronomy for Development Project Design

[Learn More](#)



Course on Introduction to Development Economics for non social scientists

[Learn More](#)

Support to proposers:

Although our calls for proposals are open to anyone, we understand that not everyone has training or experience in writing proposals. A potential applicant can request

1. Proposal writing support: Applicants will be matched up with an astronomer or other expert with experience in writing proposals. The expert will guide and advise the applicant on the proposal structure and language. This form of support is NOT meant to help the applicant improve their proposal concept but only to communicate it better.
2. Translation support: We welcome proposals from people in different countries but due to practical constraints, we only accept applications in English. If that is not your first language or if you do not feel comfortable writing a proposal in English, you can contact us to request translation support. In this case, your proposal will be translated to English exactly as you have written it in your language.

We depend on volunteers to provide the above forms of support. Hence, we cannot guarantee these services (it will be provided on a first-come, first-served basis). Nor can we provide assurance of selection if we provide you this support.

[More information](#)

Eligibility:

Please verify that you agree to/abide by the following before beginning your application. Contact us at projects@astro4dev.org in case of queries.

- The proposed project should address a problem or challenge related to development and the project should use **Astronomy as a tool to address this problem.**

- One or more project deliverables should be ready by the end of the implementation year (given the evolving nature of the current global pandemic, this requirement may be reviewed and updated); proposals are welcome for projects that run over several years (max of 3 years), although funds will only be released annually according to the proposed budget per year and subject to a review of progress.
- All distributable project resources, materials, etc. should be released to the public under an appropriate license (e.g. [Creative Commons](#)) allowing free use and adaptation.
- Proposers should be able to provide a verified bank account through which funds can be paid if the project is selected for funding.
- All projects should adhere to the [Principle of Universality of Science](#) as defined by the International Science Council (previously ICSU), of which the IAU is a member.
- Projects should also adhere to the [IAU Code of Conduct](#) which includes policies on ethics and anti-harassment, best practices. The code of conduct should be made available to participants of all IAU funded activities.
- All project team members listed in the proposal should have discussed the proposal and committed to executing the project. The project team should be prepared to provide verification of qualifications and/or reference letters if requested by the OAD.
- The proposers should obtain all necessary permissions and authorizations, as required by their national and local laws, to carry out their work, such as written parental consent when working with minors, permission to use copyrighted material, permission for gatherings during COVID times etc.
- The project team should support the detailed evaluation of the impact of their project by the OAD (if such an evaluation is feasible and if the project is selected for evaluation)
- **Proposals should ideally be submitted via the online Application Form. All proposals received will be acknowledged by email. Contact us at projects@astro4dev.org if you do not receive an email confirmation of your application.** If you are unable to submit the proposal online for any reason, you may contact us at projects@astro4dev.org at least a week before the deadline to arrange for an alternative submission method. This includes anyone with visual or other impairments who may require assistance.
- If you require assistance in translating your application, please contact us at projects@astro4dev.org immediately and at least 2 weeks before the deadline so we may try to make suitable arrangements
- Application forms should be complete and received at the OAD before the deadline.

APPLICATION

Two Stage Application:

The Call for Proposals is divided into two stages of application. The first stage is open to everyone while only selected proposals from Stage 1 will be invited to Stage 2. Detailed information is provided below for the Stage 1 process; more information for Stage 2 will be provided after the end of Stage 1 in August 2021.

Stage 1:

The Stage 1 call for proposals is open to proposers from anywhere in the world. Projects can be proposed by a single person or by a team of people (teams are encouraged). Proposers submit a brief, online application with the key aspects of their project and/or idea. Proposals will be scored by the OAD review panel based on a set of defined criteria (see below).

Around 30 proposals will be selected from the Stage 1 applications and the proposers invited to submit a Stage 2 proposal. In addition, each of the eleven IAU Regional and Language Offices will nominate any one proposal from their region to be invited to Stage 2. All proposals will receive brief feedback from the reviewers.

Stage 2:

Selected proposals will be invited to Stage 2 during which the proposers will work with the OAD on their application. As a first step, the proposers will be asked to submit a draft Stage 2 application, accessible to the OAD team, the Regional Offices, and invited external experts, all of whom will help refine the proposal. The draft application will not be available to the review panel, who will eventually evaluate the applications.

The Regional Offices will be able to suggest ways of improving a proposal to be locally relevant, thus ensuring support from possible local collaborators who could strengthen the project. The OAD, alongside the Regional Offices, will check whether the projects are truly innovative (checking [previously funded OAD projects](#) and other initiatives addressing similar concerns) and/or whether the project idea is supported by current evidence. The OAD and Regional Offices may suggest potential collaborators if applicable. External experts, consulted by the OAD where necessary, would provide useful additional guidance on the assessment of projects, including a perspective on which projects are most likely to make an impact on development.

Based on the discussions with OAD and the Regional Offices, proposers modify their Stage 2 applications and submit them online by the final deadline. An independent review panel then scores these modified Stage 2 proposals and makes the recommendations on the projects to be funded and the funding amounts for each project. Upon approval by the OAD Steering Committee, all applicants are notified of the results.

Grant Amount:

The IAU has earmarked a total amount of **€120,000** for this 2021 call for proposals. In the past, individual project grants (for a year) have ranged from 1000 Euros to 15,000 Euros with an average grant of around 5000 Euros.

Project Duration:

Typically, OAD projects run for 1 year – beginning in January or February of the year following the call for proposals. For this call, selected projects are expected to start in January or February 2022 (the grant will be paid by that time) and complete by January or February 2023. Projects can request a no-cost extension if there are unavoidable circumstances that cause delays.

This year, the OAD is also soliciting proposals for multi-year projects (up to 3 years). These are projects which, by design, need longer than a year for implementation. This does not apply to multiple implementations or replication of the same project idea in different years. For example, a project that plans to organize astronomy events or workshops cannot apply for a multi-year grant in order to host the same events in multiple years.

Multi-year proposals should address the entire duration of the project with a yearly breakdown of budget, timeline, and deliverables. Funds for these projects will be released on an annual basis subject to a performance review by the OAD. Annual reports will be requested for this purpose.

Themes

From the experience of funding 160 projects (and reviewing more than 1000 proposals) since 2013, and with input from the regional offices around the world, the OAD has identified Flagship projects that encapsulate the idea of astronomy for development, and which have the potential for global roll-out. Therefore, these Flagships are included as Themes in the call for proposals. Other themes cover gaps or issues relating to current global challenges, such as the current COVID pandemic.

The themes for this call are:

1. Sustainable, local socio-economic development through Astronomy

This Flagship aims to use an astronomical facility, such as an observatory or planetarium, as a “hub” within a small town or village to stimulate various associated socio-economic benefits for the local community. Benefits could include job creation through astronomy-related tourism; community skills development; educational programmes; stimulation of local innovation; alternative activities for youth in order to keep away from negative/harmful activities; and infrastructure development. The establishment of such a facility in close collaboration with relevant government, industry, academic and development partners, including local and traditional leadership, will ensure the sustainability of the initiative.

[Project Astrostays](#)

[More information](#)

2. Science diplomacy through Astronomy: Celebrating our Common Humanity

Astronomy brings us a perspective of the beauty and scale of the universe. Most famously, Carl Sagan used this perspective to try to positively influence how people interact with their fellow human beings, and our planet, through his description of the earth as a “pale blue dot”. This project aims to take the inspiring potential of astronomy and use it to stimulate a sense of tolerance and common humanity in all parts of the world, which could also have a positive effect on mental health and well-being.

[Project Astronomy for Mental Health](#)

[Project Pale Blue Dot](#)

[More information](#)

3. Knowledge and Skills for Development

This flagship focuses on the use of skills such as data handling, data analysis and machine learning, as well as computing technologies/infrastructure widely used in astronomy, to tackle development challenges. This may be executed in the form of educational programmes, hackathons, competitions or other original interventions that focus on skills and technology transfer.

[Project Big Data Hackathons](#)

[More information](#)

4. COVID-19 and astronomy for development

An additional theme for the 2021 call for proposals is COVID-19 and astronomy for development. Undoubtedly, the COVID-19 pandemic continues to significantly affect our everyday lives and development work globally. COVID-19 has already reversed years of progress towards the SDGs- it has deepened inequalities, increased extreme poverty, and stoked anti-globalism sentiments among other effects (see [reference](#)). Under this theme, we are seeking proposals that capitalize on the strengths of astronomy to specifically counteract one or more of the effects of COVID-19.

5. Technical astronomy-for-development projects

There are a broad range of techniques and technologies used in astronomy that can be transferred into other fields or disciplines where they might have the potential to impact on development (as defined by the United Nations’s Sustainable Development Goals). Projects proposed through this theme might be the initial development of an idea that could be put forward for future funding through other streams, or

building a technology demonstrator. Examples of such technical projects include solar water purification, [using infrared image detection to play a role in wildlife conservation](#), developing radiative cooling technology to address water shortages in arid regions.

It is not a requirement that your project aligns with one of the above themes. However, should you choose to submit a project related to one of the above themes, then your project should be designed in such a way that it can serve as pilot or demonstrator for the theme (meaning the project concept and design has the potential to be scaled up and deployed globally). The OAD will be available to provide additional assistance or guidance in developing such a project further.

Proposals may also overlap with more than one theme but we request you to choose the primary or most significant theme. For more information and queries on the themes, please contact us at projects@astro4dev.org.

SELECTION

Selection Criteria:

Selection Criterion	Corresponding information required from proposer in the application form	Scoring
1. Level of need for proposed activities in the region or project location and for the target audience	5. Which countries will your project target? 6. In which languages will your project be delivered and/or written? 7 a. Choose the primary target audience for your project 9 a. Project summary 10 a. Describe the developmental challenge you aim to address in this project. 13. Why should we fund your project?	How relevant is this challenge or problem in terms of needs in the target location? (1-10)
2. Relevance to Astronomy for Development and/or themes	8 c. Will your proposal be a pilot project for one of the below Theme(s)? 9 a. Project summary 10 b. To which of the Sustainable Development Goals (SDGs) will your project respond ? Choose up to 3 SDGs. 10 c. How will you achieve these goals using Astronomy ?	Does the proposal fit the OAD Themes and/or Is the project relevant to astronomy for development? (1-10)

<p>3. Innovation and creativity, improving on what has been shown to work</p>	<p>8 a. Have you or any of your team members submitted this same idea in previous years? If Yes, what was the title of that proposal?</p> <p>8 b. Are you building upon previous work, done either by you or others ? If Yes, please provide more details or a link to the project.</p> <p>13. Why should we fund your project?</p>	<p>Has this project come up with some interesting new ideas or built upon existing ideas in a constructive way?</p> <p>Has it improved upon any previous proposal? (1-10)</p>
<p>4. Project effectiveness</p>	<p>7 b. How will you ensure audience diversity (e.g. gender balance) for your project?</p> <p>7 c. Comment on the qualifications, experience, and diversity of your team.</p> <p>8 d. Are you applying for a multi-year project?</p> <p>8 e. Please justify the need for a multi-year project.</p> <p>9 a. Project summary</p> <p>9 b. how will you implement your project if travel and/or social distancing restrictions are in place in 2022(or other COVID related impact) ?</p> <p>11. What are the intended Deliverables of the project?</p> <p>12 a. b. c. Budget</p> <p>13. Why should we fund your project?</p>	<p>Does the proposed solution respond to the stated challenge?</p> <p>Are the budget and deliverables reasonable and match the need in the region?</p> <p>Is a suitable project team in place?</p> <p>Does it make sense to run it as a multi-year project?</p> <p>(1-10)</p>

Additional evaluation criteria for multi-year projects:

Any multi-year projects selected will be funded on an annual basis subject to a performance review by the OAD. These projects will be requested to submit the following information at the time of the annual performance review (at a minimum):

- summary of project activities in the preceding year
- list of team members and partners
- details of target audience
- final deliverables for the year
- resources produced

- SDGs impacted (with justification)
- outcomes for the year
- external funding obtained
- changes in plans for the following year

If the annual performance review is not satisfactory, the OAD reserves the right to not continue funding a multi-year project.

Multi-year projects will also be required to set up dedicated evaluation structures and protocols to track project outcomes and impact over several years. The OAD can help arrange support for such evaluation. More information will be requested in the Stage 2 application.

TIMELINE

The timeline below will be followed for the 2021 call:

Stage 1	
April 30	Open call for proposals issued
May 31	Deadline for Stage 1 applications
June - July	Proposals scored by reviewers with input from OAD Regional Offices
August 02	Announcement of Stage 1 results. All proposers notified
Stage 2	
August 02	Selected proposals invited for Stage 2
August 02 - September 07	OAD and Regional Offices work with proposers to review/revise proposal, in consultation with external experts where relevant
September 07	Last date for any consultation with the OAD and Regional Offices
September 15	Deadline for Stage 2 applications
September 16 - October 31	Evaluation by reviewers
mid November	Results announced

mid December	Grant agreements sent to successful projects
January - February 2022	Funds transferred to projects
July 2022	Mid year reports due
Jan-Feb 2023	Final reports due

[Apply Online](#)

Deadline for Stage 1 is end of day May 31, 2021 (midnight UTC-12).

As long as it is May 31 somewhere in the world, we will continue to accept applications

ADDITIONAL INFORMATION ON SDGS:

The following is a list of the 17 SDGs (successors to the Millennium Development Goals) adopted by the United Nations in 2015. **Please look through the SDG indicators that links the goals to concrete outcomes** <https://unstats.un.org/sdgs/indicators/indicators-list/>

1. **Poverty**– End poverty in all its forms everywhere
2. **Hunger**– End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. **Health**– Ensure healthy lives and promote wellbeing for all at all ages
4. **Education**– Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. **Women**– Achieve gender equality and empower all women and girls
6. **Water**– Ensure availability and sustainable management of water and sanitation for all
7. **Energy**– Ensure access to affordable, reliable, sustainable and modern energy for all
8. **Employment & Economic Growth**– Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
9. **Infrastructure & Innovation**– Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
10. **Inequality**– Reduce inequality within and among countries
11. **Urban Safety & Welfare**– Make cities and human settlements inclusive, safe, resilient and sustainable
12. **Production & Consumption**– Ensure sustainable production and consumption patterns
13. **Climate Change**– Take urgent action to combat climate change and its impacts
14. **Marine Conservation**– Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15. **Environment preservation**– Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss

16. **Peace, security, equality**– Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. **Implementation**– Strengthen the means of implementation and revitalise the global partnership for sustainable development

It can be difficult to conceptualise how astronomy, a seemingly esoteric and specialised science, can contribute to the above immediate and real challenges facing society today, but there are many ways in which it can. Some examples are:

- Using astronomy to support a sense of common humanity to contribute to goals 16 (Peace, Security) and 10 (Inequality)
- Leveraging the attraction of astronomy in order to support the economy, such as in astro tourism, to contribute to goal 8 (Employment, Economic growth)
- Projects that build science/technology skills and human capital to further goals 8 (Employment) and 9 (Infrastructure & Innovation), as well as 17 (Implementation)
- Repurposing astronomy compute facilities to run models for disease outbreaks addresses goals 3 (Health and Well being) and 17 (Partnerships for the goals).

The diagram below gives examples of ways in which past projects have tried to influence the SDGs. More in this [blog post](#) and our [Project Highlights booklet](#).



FAQ:

1. Can I propose a project even though I do not have any astronomy background?

Yes, the call is open to anyone regardless of background. Having said that, you are expected to have team members with the right expertise, whether that is astronomy, development, coding, teaching etc., required to carry out your project.

2. I have conducted numerous outreach activities in my city and country. Can I apply for funding?

The call is specifically aimed at projects with a development focus. Outreach projects can have development objectives (see examples in the [CAP journal](#)). But if it is a purely outreach project with the aim of promoting awareness of astronomy, your activities are more relevant to the [IAU Office for Astronomy Outreach](#).

3. Can I apply for funding to purchase a telescope or other infrastructure?

The call does not explicitly exclude any type of project as long as the objectives are focused on development. For example, if you need funds to acquire a telescope or other instrument, your proposal should clearly demonstrate how this instrument will improve development outcomes. The telescope or instrument must simply be a means to the end goal of development. We are more interested in how you will use this telescope to impact on the SDGs. You must also bear in mind that OAD project grants are around 5000 euros on average, so big instrumentation or infrastructure is out of scope.

4. What is the ceiling on the grant amount?

We have not defined a maximum amount that can be requested by a project. The total amount available for the call is 120,000 Euros. Typically, this will be split across 10-15 projects, so the individual grants are small to medium.

5. Does it matter if English is not my first language?

We welcome proposals from people all around the world. But due to practical constraints we only accept applications in English. If that is not your first language or if you do not feel comfortable writing a proposal in English, you can contact us at projects@astro4dev.org to request proposal writing support. Remember that a good idea still needs to be communicated well.

6. I still do not understand what you mean by development. What is the link to astronomy?

We adopt a broad definition of development. Go through our [Getting Started](#) section as well as read up on specific examples of past projects – [Projects booklet \(2020\)](#), [Projects booklet \(2018\)](#), [Coffee table book, Yearbook 2016](#), [Yearbook 2017](#), [CAP Journal Mar 2020](#).

EXAMPLE PROPOSALS

[Example Proposal 1](#)

[Example Proposal 2 \(multi year proposal\)](#)