



## IMPACT STORY



# STRENGTHENING WOMEN'S CAPACITIES AND EMPLOYABILITY AT MAJOR ASTRONOMICAL OBSERVATORIES

Photography: European Southern Observatory

*"I have always liked astronomy. I loved this course because it allowed me to get closer to science, to be close to these giant telescopes; it was like being at NASA. I love the mega structures; the first time I was taken to the observatory, I felt like a little girl on Christmas Eve,"* says Daniela San Gabriel Sánchez Manriquez, a participant of this initiative developed by UN Women's the Second Chance Education Programme and the European Southern Observatory (ESO).

Since 2020, UN Women and the ESO have collaborated to promote women and girls' participation in the sciences related to the major astronomical observatories, focusing on Antofagasta Region due to its strategic location. In addition, the two entities are also committed to promoting astronomy and engineering to reduce the gender gap in these areas. ESO's Science Officer, Itziar Gregorio-Monsalvo, said, *"What makes this alliance so important is that it sets a common objective of increasing women's participation in STEM careers."*

Daniela is one of the seven participants in a training program as part of this alliance. Her training focused on telescope optical coating for professional astronomical observatories. Training included virtual lessons and technical visits to the Paranal Observatory, where practical lessons were conducted during a 14-week blended learning program. Meanwhile, the Second Chance Education Programme

tutors provided personalized support. As they worked on their employability, leadership, and social skills, the tutors motivated them to complete the program.

Throughout the program, the ESO provided participants with a tablet and an internet connection for accessing the online courses regularly. The women participants also received a travel allowance, a cash incentive for training, and insurance against work-related accidents. Benefits were arranged through a collaboration with Programa Mujeres Emplea<sup>1</sup>. Participants were also offered additional English language courses by the Biblioredes program following the training.

At the end of the training, Daniela passed a job selection process and joined the maintenance department of the Paranal Observatory in northern Chile's Atacama Desert. The facility houses world-class telescopes, and its maintenance requires the coordination of dozens of people with diverse skills to be appropriately maintained.

Through this joint initiative, job opportunities have improved for participants in areas with greater male participation and where women's work is less visible. For example, Daniela says, *"Women can make significant contributions to science, but they lack opportunities and training spaces like this. This way, we can be taken to the next level, allowing us to work in fields such as astronomy, which men generally dominate."*

**Photo above:** Women receiving training from ESO team at Paranal Observatory.

1. Women in Employment Program. Inter-agency Immediate Response Project for the Economic Reintegration of Women in Chile financed by the United Nations Multi-Partner Fund in response to COVID19.

## PARTNERS FOR CHANGE

The **European Southern Observatory** is the leading intergovernmental astronomy organization in Europe and the most productive astronomical observatory in the world. The ESO provides state-of-the-art research facilities for astronomers and is supported by Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, and the United Kingdom, with Chile as the host state.

The European Southern Observatory (ESO) is the pre-eminent intergovernmental science and technology organisation in astronomy. It carries out an ambitious programme focused on the design, construction and operation of powerful ground-based observing facilities for astronomy, in order to enable important scientific discoveries. ESO also plays a leading role in promoting and organising cooperation in astronomical research.

ESO operates three unique world-class observing sites in the Atacama Desert region of Chile: La Silla, Paranal and Chajnantor.

In 2020, ESO and UN Women signed a Memorandum of Understanding, aiming to collaborate in the promotion of gender equality in the STEM field in Latin America and the Caribbean Region, with the objective of increasing the participation of women in Astronomy and Engineering and connecting women with the state-of-the-art Research and Development activities carried in unique research facilities like the ones operated by ESO.

One of the areas of collaboration is to economically empower women in Chile through training and education, where ESO and UN Women will explore together how the scientific and technical expertise of ESO staff can positively be used to strengthen the Second Chance Education programme to impact women's economic autonomy, specially in the Region of Antofagasta.

**Fundación Emplea**, Second Chance Education Programme's implementing institution, provided personalized mentoring with a participatory approach based on experiential learning. As a result of this mentoring, women strengthened their work skills, competencies, confidence, and self-esteem.





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In addition, the Biblioredes program, which belongs to the Ministry of Cultures, Arts, and Heritage, through the National Cultural Heritage Service, managed the inclusion of women participants in English language courses to improve their skills and opportunities for development in an international environment like the ESO's Paranal Observatory.

## SECOND CHANCE EDUCATION AND VOCATIONAL LEARNING PROGRAMME

As part of the UN Women's [Second Chance Education Programme](#), women who have not been able to complete their formal education and who are in a vulnerable position regarding employment and job opportunities can receive an integrated solution. UN Women, in partnership with BHP Foundation, implement this initiative simultaneously in six countries: Cameroon, Jordan, India, Mexico, Australia, and Chile. Through multi-sectoral alliances, it promotes women's empowerment at the local, national, and international levels by promoting formal education, employment, and entrepreneurship development.

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