

ENVIRONMENT

2021 Sustainability Plans



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Legal Notice

This Sustainability Plan includes a set of actions which, in whole or in part, go beyond what is required by law and are aimed to contribute to sustainable development. Participating companies of Repsol Group have the firm intention to undertake and fulfill them. However, they reserve the right to modify, postpone or cancel their implementation without incurring liability, but undertake to publicly justify these possible cases.

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1 Our visión of sustainability

At Repsol, we contribute to sustainable development by seeking to satisfy the growing demand for energy, which is essential for the fulfillment of people's fundamental rights, and by creating value in both the short and long term.

We maximize our positive impact and minimize our negative impact on society and the environment throughout our value chain by acting ethically and transparently. In doing so, we seek to comply not only with the regulations in force but also with the main international standards.

Under these premises, our sustainability model incorporates ethical, environmental, and social considerations into our decision-making process, based on dialogue with stakeholders. We do this every year, creating initiatives that address the concerns of these stakeholders. This is how the **Sustainability Plans** — action plans that are available to the public and created on an annual basis — are born. The **Global Sustainability Plan** is the roadmap forming the basis for deployment of **Local Plans**. The plans also contain commitments in relation to the local context.

The Sustainability Plans are put together on the basis of the six axes of Repsol's Sustainability Model.



We consume the resources needed to generate power more efficiently and with the least possible impact













2 Environment

AT REPSOL, WE CONTRIBUTE TO SUSTAINABLE DEVELOPMENT

In order to guarantee society sustainable growth over time, at Repsol we work prioritizing the actions necessary to minimize environmental impacts. For this, we optimize the use of the resources that we use in our industrial processes in the manufacture of our products, including water, and we minimize emissions to air and water, as well as the generation of waste, giving them a second life whenever possible.

The conservation of natural capital and biodiversity, as well as the implementation of the circular economy, are key aspects when developing our activity.

Our Safety and Environment Strategy defines the key lines of action on which the company will focus its environmental efforts by 2025: we must be able to quantify and assess the impacts and dependencies on the environment when making business decisions, focusing on the most sensitive aspects of our operations. Our goal is to maintain the social license to operate through excellent environmental management, showing that we are sustainable throughout our entire value chain, both in our projects and operations, as well as in the products and services that we make available to our customers. customers.

The different Sustainability Plans are committed to courses of action in accordance with the lines of work which Repsol operates in terms of sustainability.

Below, we list the actions that show our commitment to Environment.

The actions that make up in Environment issues in the Sustainability Plans help support the United Nations' 2030 Agenda by addressing the following Sustainable Development Goals (SDG):

















3 Balance

At the end of the year, it is time to review each of the **Environment initiatives of the Sustainability Plans**. The degree to which the objectives have been fulfilled is as follows:



Further down, we provide the actions from the **Environment axis**.

Number of actions in Environment



COUNTRY

ACTION

Algeria

- Implement the operating management system.
- Raise awareness of potential impacts on natural resources.
- Contribute to sustainability through the monitoring of Circular Economy initiatives.
- Contribute to minimising company's gas emissions.

Bolivia

- Carry out circular economy projects aimed at the reuse/recycling of waste, optimizing water consumption.
- Carry out a cooperation agreement for the execution of the Andean Bear research and conservation project.
- Carry out a study to optimize water resources in the area of communities neighboring Campo Margarita.
- Carry out an Action Plan for Biodiversity.

Brazil

- Fostering environmental culture in the supply chain.
- Conduct an emergency response drill with an oil spill scenario at sea.



COUNTRY	ACTION
Canada	 Contribute to the Company's goal to maintain the social license to operate through excellent environmental management. Promote the use of shared infrastructure amongst local operators.
Colombia	 Apply circular economy criteria to electronic equipment decommissioned in 2021. Conduct a pilot study on a non-operated asset based on natural capital depletion indicators.
Ecuador	 Execute the 2021 environmental risk minimization plan. Execute participatory monitoring to control colonization prevention in the main rivers of influence (Bl16 and 67).
Indonesia	 Implement the reclamation for revegetation of abandoned exploration well within three years process. Raise the awareness and competence for safety and environment among our employees. Provide environmental education and awareness to students and communities in the form of online program Repsol Goes to School.
Malaysia	 Promote environmental awareness among schoolchildren. Reduce the volume of waste for final disposal
Mexico	 Incorporate principles related to environmental protection, circular economy and SDGs in the training actions of people working in Repsol Mexico, both directly.

COUNTRY	ACTION
Norway	Ensure use of the most environmentally friendly chemicals at Yme
Peru	 Strengthen the technical and management capacities of the native communities of Lot 57 in order to improve the surveillance and participatory monitoring process. Continue with the water reuse optimization plan at La Pampilla Refinery. Obtain the Blue Certificate, recognition from the National Water Authority (ANA) as a responsible water user, in our production operation in Lot 57.
United Kingdom	Enhance knowledge and understanding of our Environmental Management System.
United States	 Protect the environment and biodiversity near our activity. Promote healthy and sustainable communities through environmental partnerships.
Venezuela	Contribute to the knowledge of the employees of the Venezuela Business Unit and to promote sustainable lifestyles and practices in order to reduce our ecological footprint on the environment.

INDUSTRIAL COMPLEXES

ACTION

A Coruña

- Reducing emissions into the atmosphere.
- Promote actions to develop a circular economy with the environment.
- To carry out environmental improvement actions in the Industrial Complex.

Cartagena

- Integrate circular economy policies in our activity.
- Optimising our integrated water management.
- Support the sustainable development of the Port of Cartagena.

Petronor

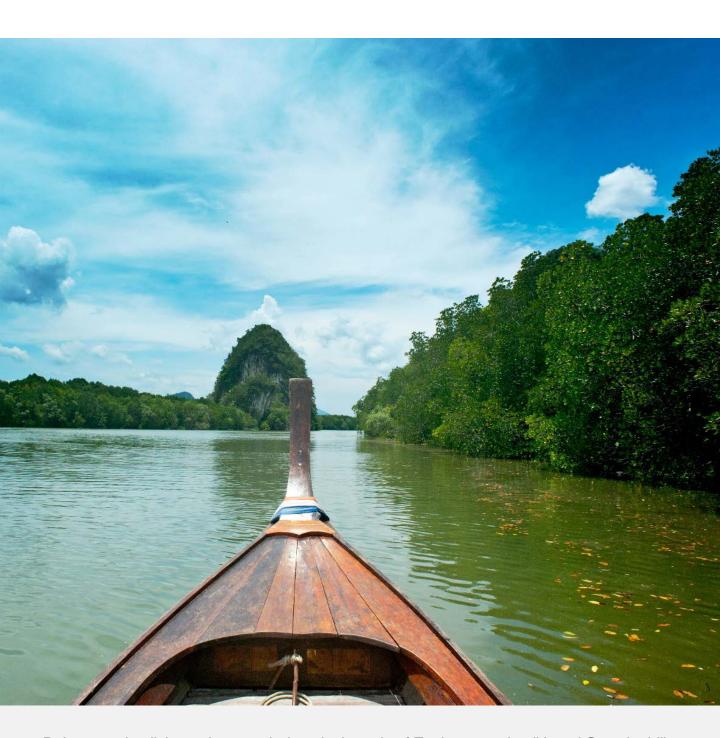
- Incorporate, as raw material, used cooking oil (UCO) "kilometer 0".
- Carry out training activities with an environmental focus.
- Increase the efficiency of water use in cooling systems.
- Guarantee the quality of the analytical results related to the return to the sea of purified water.
- Improve energy efficiency in acid water drains.
- Strengthen the surveillance network for the support of diesel tanks.
- · Reduce waste generated by cleaning tanks.
- Reduce volatile organic compounds (VOCs) in the inerting of tanks.

Puertollano

- Reduce the impact of atmospheric emissions and improve air quality through the use of biofuels.
- Develop Circular Economy initiatives that improve environmental management and reduce waste generation.
- Optimize water management by maximizing the recovery and quality of discharged water.
- Train all employees of the Puertollano Industrial Complex on environmental protection.
- Increase circularity in our production processes.

Sines Promote the circular economy through waste management. Continuous monitoring of NOx emissions. Tarragona Publish the Observatory on air quality in the "Camp de Tarragona". Actively participate in collective efforts to protect the environment. Carry out actions that allow the training and awareness of employees in matters of the environment, circular economy and SDGs.

5 Annexes



Below, we detail the actions carried out in the axis of Environment in all Local Sustainability Plans. The information referring to the countries and the reference to the industrial complexes are published in English.

Countries



Algeria



Action

Implement the operating management system.

Description

We will progress in the implementation of the new operating management system in the Groupement Reggane Nord (GRN) operations and we will train the GRN employees to get a successful implementation.

Indicator

Develop the training Plan of the Operating Management System.

Launch the training Plan of the Operating Management System.

What we've achieved



The implementation of the new operating management system (OMS) in the Groupement Reganne Nord (GRN) has advanced according to the 2021 Plan: 99% of the HSE management documents have been prepared, the internal audit has been carried out in October and two OMS Committee meetings have been held. In addition a Training Plan has been prepared and implemented including HSE leadership, investigation, risk management, emergency management and operational training.







Algeria



Action

Raise awareness of potential impacts on natural resources.

Description

We will award and initiate a specific groundwater impact assessment for GRN (Groupement Reggane Nord) activity for understanding current and future potential impacts.

Indicator

Award the tender.

Launch the Kick off meeting.

What we've achieved



The groundwater impact assessment Scope of Work for Groupement Reggane Nord (GRN) has been prepared, the bidding process has been launched and proposals have been received and are being evaluated. The Groundwater impact assessment award and the kick off meeting were postponed to 2022, as the bidding process had to be launched at least three times due to the lack of proposals.



Algeria



Action

Contribute to sustainability through the monitoring of Circular Economy initiatives.

Description

We will support GRN (Groupement Reggane Nord) in the monitoring of Circular Economy initiatives identified during 2020 and giving them publicity in the Company.

Indicator

Prepare quarterly monitoring reports.

What we've achieved



The Circular Economy initiatives identified during 2020 have been monitored on a quarterly basis during 2021 and the corresponding quarterly reports have been prepared. In addition, we have contributed to the dissemination of some of the most successful circular economy initiatives within the company.







Algeria



Action

Contribute to minimising company's gas emissions.

Description

We will prepare the Scope of Work of a project for a LDAR (Leak detection and repair) assessment after the maintenance shutdown of Groupement Reggane Nord (GRN) and introduce it to the Groupement.

Indicator

LDAR Scope of Work.

What we've achieved



The Scope of Work of a project for a LDAR (Leak detection and repair) assessment in Groupement Reggane Nord (GRN) has been prepared and consulted with relevant GRN management.

Through the LDAR campaign it is possible, using optical equipment, to detect unidentified gas leaks, thus being able to reduce GHG (Green House Gases) emissions and obviously improve the process safety.





Bolivia



Action

Carry out circular economy projects aimed at the reuse/recycling of waste, optimizing water consumption.

Description

We will carry out projects for the use of organic resources, such as composting and vermiculture; as well as water reuse or optimization projects in our operations and projects.

Indicator

Report 2 Circular Economy projects implemented in 2021.

What we've achieved



We have implemented three (3) circular economy projects. These projects are composting at the Margarita Plant (MGR), which has allowed optimization of waste management, reuse of irrigation water (from the residual water and osmosis treatment plant) at the MGR Plant, and reuse of condensation water from the air conditioners used in the drilling of the MGR-10 well in the Caipipendi block.







Bolivia



Action

Carry out a cooperation agreement for the execution of the Andean Bear research and conservation project.

Description

We will plan actions that will serve as an instrument for the conservation of the Andean Bear in Bolivia, focusing research on one of the regions considered to be a priority for research and conservation of the Andean Bear in the country.

Indicator

Signing of the agreement to carry out the study.

Execution of the second phase of the project.

What we've achieved



It has not been possible to carry out the second phase of the study due to budget reasons.





Bolivia



Action

Carry out a study to optimize water resources in the area of communities neighboring Campo Margarita.

Description

We will finance the preparation of a water resource optimization study in four communities neighboring our operation in the Margarita field, together with the competent authorities.

Indicator

Water optimization study prepared.

What we've achieved



We have prepared a study of water resources that will allow us to implement multiple actions to optimize the use of this resource in the Caipipendi Block Operation.









Bolivia



Action

Carry out an Action Plan for Biodiversity.

Description

We will carry out a detailed analysis of hunting, fishing and livestock farming in the area and the use of natural resources. We will define a manual of conservation measures for protected species in the study area.

Indicator

Submit two summary reports of the tasks carried out as part of the 2021 Biodiversity Action Plan (PAB) in the Caipipendi area.

What we've achieved



We have prepared a Biodiversity action plan that includes a manual of species conservation measures, as well as a detailed analysis of hunting, fishing, livestock and natural resources for the Caipipendi area; Likewise, we have defined a snake guide for the Caipipendi Area and the publication of two articles on biodiversity (Caves on the access road to Well MGR-10 and Archaeological Findings during the construction of the access road to Well BCS-X1).



Brazil



Action

Fostering environmental culture in the supply chain.

Description

We will implement the updated environmental clause in new contracts entered into as of January 2021.

Indicator

Include the updated clause in 95% of the contracts signed in 2021.

What we've achieved



We have implemented the environment clause in 100% of the 27 new contracts signed in 2021. The purpose of the environment clause is to manage risks in accordance with the scope of the contract and the exposure that it could bring to Repsol Sinopec Brasil. We have categorized 3 different management levels and each contract mode will define the responsibilities between the operator and the contractor and also the requirements that the contractor will have to fulfill contractually.







Brazil



Action

Conduct an emergency response drill with an oil spill scenario at sea.

Description

We will exercise the Repsol Sinopec RSB Emergency Response Plan with mobilization of the Incident Management Team (IMT) and Business Support Team (BST) considering a scenario of an oil spill at sea in one of Repsol Sinopec's assets.

Indicator

Conduct emergency response drills through December 2021.

What we've achieved



We have carried out the emergency response drill in the field of oil transport operations between ships (Ship to Ship), with the participation of the service provider and mobilization of the internal teams (IMT – Incident Management Team) and (BST – Business Support Team). The exercise was carried out successfully, improving risk analysis and response effectiveness for this operation.







Canada



Action

Contribute to the Company's goal to maintain the social license to operate through excellent environmental management.

Description

We will reassess potential environmental risks identified in 2020 by completing field assessments to minimize environmental impacts.

Indicator

Complete field inspections on highest risk geohazard locations identified through 2021 desktop studies, to be completed by December 31, 2021.

Conduct quarterly review meetings to analyze progress of the expanded piping inspection program and determine next steps based on results.

What we've achieved



We have completed field inspections on the highest risk geohazard pipeline locations that included assessments of slopes and watercourse crossings in our Edson asset to identify measures for ongoing environmental risk management.

We have conducted meetings, developed a piping inspection program and conducted field inspections at various facilities in our Chauvin and Edson asset areas. The field inspections assisted in identifying potential integrity issues on our pipelines and facilities.





Canada



Action

Promote the use of shared infrastructure amongst local operators.

Description

We will identify and evaluate opportunities for other operators to utilize our existing water infrastructure, in efforts to minimize new disturbance to the landscape that will contribute to mitigating the broader social impacts in our surrounding communities.

Indicator

We will engage with local operators during quarterly operator's group meetings.

What we've achieved



We have conducted engagement with various operators and identified two opportunities for third-party water operations utilizing Repsol's existing infrastructure. These engagements supported efforts to minimize new disturbance to the landscape and promote responsible development.









Colombia



Action

Apply circular economy criteria to electronic equipment decommissioned by 2021.

Description

We will ensure that the equipment that is decommissioned in 2021 is disposed of under circular economy criteria, achieving its reuse or recycling.

Indicator

Reach 100% of equipment recycled and/or reused.

What we've achieved



During 2021, no electronic equipment was donated or removed.



Colombia



Action

Conduct a pilot study on a non-operated asset based on natural capital depletion indicators.

Description

Together with one of our partners, we will identify a project to evaluate the effectiveness of environmental management measures based on natural capital depletion indicators. For this, we will make use of the READS methodology (Repsol's Environmental Data Analysis System).

Indicator

Prepare a report on the application of the READS methodology to the identified project.

What we've achieved



We have set the completion of this initiative for the year 2022.









Ecuador



Action

Execute the 2021 environmental risk minimization plan.

Description

We will execute actions, within the environmental risk minimization plan, aimed at studying the barriers that the business has, both physical and non-physical, to avoid spill scenarios. In 2020, the highest risk scenarios were identified and we will work on them in terms of measuring the effectiveness of preventive and recovery barriers for identified cases of major spills.

Indicator

Achieve 100% implementation of the environmental risk plan by the 31st of December 2021.

What we've achieved



We have complied with 100% of the environmental risk minimization plan to mitigate possible spill scenarios within the Block 16 and Block 67 operations.





Ecuador



Action

Execute participatory monitoring to control colonization prevention in the main rivers of influence (Bl16 and 67).

Description

We will manage the participation of MAEE authorities and community leaders/representatives in river monitoring of the main rivers in the area of influence of the operations in order to prevent and alert authorities of possible colonization attempts, especially in the Yasuní National Park.

Indicator

Execution of three fluvial monitoring activities during 2021.

What we've achieved



We have carried out quarterly participatory monitoring to control the prevention of colonization in the main rivers of the area of influence (Blocks 16 and 67), thus preserving the native communities in the area.



Indonesia



Action

Implement the reclamation for revegetation of abandoned exploration well within three years process.

Description

We will carry out the implementation of the reclamation for reforestation of the abandoned exploration wells Ayu-1, Elok-1 and Anggun-1 and include the road access to the wells which will be implemented within three years.

Seeds need to be planted in 625 ha, with a distance between seeds of 4 m X 4 m, requiring a total of 14,300 trees.

A monitoring report will be provided to local forestry department every six months and maintenance acceptability is 80% seed grow in the 3th year.

Indicator

Plant seeds in 50% of 625 ha, requiring a total of 7,000 trees.

What we've achieved



We have carried out the revegetation activities, including the plant maintenance and monitoring as the implementation of the obligation for the reclamation as stated in the local regulation.

In the first year we have progressed beyond expectation with 100% plant seeds planted, and all government obligation area covered with trees. In total, 14,300 trees with plant spacing $3m \times 3m$.







Indonesia



Action

Raise the awareness and competence for safety and environment among our employees.

Description

We will deliver the online course Introduction to Safety and the Environment to all Jakarta office employees. The course will focus on circular economy, climate change, water management, waste management, natural capital and biodiversity, incident management and learning, risks and impacts and safety culture of Repsol.

Indicator

Reach a 90 % participation of Jakarta office personnel.

What we've achieved



We have encouraged all Jakarta office personnel to perform online training on safety and environment, with a participation of more than 90% of Jakarta office employees.

They have completed the following courses: Safety Leap and Introduction to E&P Safety and Environment Management System.







Indonesia



Action

Provide environmental education and awareness to students and communities in the form of online program Repsol Goes to School.

Description

We will conduct an environmental awareness program aimed for high school or college students in virtual session due to COVID-19 condition.

Indicator

Conduct one session of Virtual Repsol Goes to School, participated by students from school or college in Jambi and South Sumatra Province.

What we've achieved



We have conducted virtual "Repsol Goes to School" together with Universitas Jambi on 9 June 2021, participated by students from school or college in Jambi and South Sumatra Province.

The program focused on environmental education and awareness from Repsol experience regarding revegetation.









Norway



Action

Promote environmental awareness among schoolchildren.

Description

We will organise an environmental awareness camp for schoolchildren in conjunction with World Environment Day.

Indicator

Conduct one environmental awareness camp.

What we've achieved



We have conducted a webinar/hybrid & video contest for students and families on household ewaste awareness on the 28 August 2021 in replacement of the environmental awareness camp due to the current Covid pandemic. It was a collaboration with DoE Sabah. The theme, "Ewaste Recycled, Earth Preserved" has been adopted to reinforce this environmental awareness program.









Norway



Action

Reduce the volume of waste for final disposal.

Description

We will reduce the volume of scheduled waste SW409 (contaminated container) for final disposal by sending it to a waste recovery contractor.

Indicator

Send 50% of scheduled waste SW409 generated at one operating asset to waste recovery contractor.

What we've achieved



The waste recovery program was successfully implemented. 100% (4.11 tonne) of contaminated empty container generated by Kinabalu in 2021 was sent to waste recovery contractor. We will continue this program to give a second life to the waste as a usable material.



Mexico



Action

Incorporate principles related to environmental protection, circular economy and SDGs in the training actions of people working in Repsol Mexico, both directly and indirectly.

Description

We will carry out actions to train and raise employee awareness of the environment, circular economy and SDGs so that their activities in the projects in which they participate contain elements aligned with these principles.

Indicator

Include a section on environmental responsibility in training courses for our own management network in Mexico.

What we've achieved



We have included sections on environmental responsibility, with messages related to the SDGs and our efforts in circular economy, in the training we carry out with our partners and suppliers. In addition, we have provided all people working at Repsolbranded service stations with safe operation guides to raise their awareness of the care and protection of natural resources.









Norway



Action

Ensure use of the most environmentally friendly chemicals at Yme

Description

Implement a system for chemical management at Yme which ensures continuous and efficient substitution of chemicals with less environmental harmful chemicals.

Indicator

Conduct quarterly meetings with main contractor for chemical supplies with main focus on consumption and substitution of chemicals.

Establish an overview of possible chemical reduction initiatives covering collaboration with R&D and suppliers describing the value & cost, for the next 5 years.

What we've achieved



We have identified all chemicals and expected application at Yme. We have set up quarterly performance meetings where chemicals usage is evaluated for optimization and more environmentally friendly replacement.

The identified optimization proposal programs are followed up in the quarterly meetings.









Peru



Action

Strengthen the technical and management capacities of the native communities of block 57 in order to improve the process of surveillance and participatory monitoring under their responsibility.

Description

Through inter-institutional cooperation, we will contribute to the strengthening of governance and we will promote training to carry out the exchange of academic, technical, environmental and supervisory information on operations in block 57.

Indicator

Strengthen three vigilance and participatory monitoring committees of the communities of lot 57 during the current period.

What we've achieved



We signed an inter-institutional agreement with Perupetro and the three participatory monitoring committees (EMMAC, PROMOVIK and EMACRY). The monitoring committees have an annual operational plan implemented and in execution, with monthly reports to the communities, the company and the State. Twelve monitors have received training in public management and environmental monitoring, who make up monitoring teams that have joined the Parks Network initiative led by SERNANP.









Peru



Action

Continue with the water reuse optimization plan at La Pampilla Refinery.

Description

We will carry out a study of technological alternatives for the reuse of water and we will propose an investment proposal. This action is part of the strategic project to optimize water consumption.

Indicator

Carry out the study of technological alternatives for the reuse of water and propose an investment proposal.

What we've achieved



We have concluded with the study of technological alternatives aimed at increasing the rate of water reuse. As part of this study, we have selected a technology for coagulation, flocculation and filtering with activated carbon, estimating the investment that it could represent for the company.







Peru



Action

Obtain the Blue Certificate, recognition from the National Water Authority (ANA) as a responsible water user, in our production operation in Block 57.

Description

We will support the monitoring and follow-up process in charge of the ANA team so that they corroborate the execution of our projects to reduce water consumption and shared value.

Indicator

Obtain the Blue Certificate granted by the ANA.

What we've achieved



We monitor and support by sending evidence to the ANA evaluation team, so that they can confirm the completion of our water footprint reduction and shared value projects. Consequently, we obtained the Blue Certificate for the operation of lot 57 through Jefatural Resolution No. 0223-2021-ANA dated December 14, 2021.







United Kingdom



Action

Enhance knowledge and understanding of our Environmental Management System.

Description

We will develop a rolling high level plan to deliver awareness modules covering all environmental subject matter areas in the Joint Venture (JV). In addition, we will deliver a high level awareness module of the EMS (Environmental Management System) and another one covering oil discharges to sea (OPPC Oil Pollution Prevention and Control Compliance) in the JV. With these initiatives, we aim at minimizing environmental impacts and ensuring regulatory compliance at the same time.

Indicator

Implement the program in 2021 in Repsol Sinopec Resources UK.

What we've achieved



During 2021, we have promoted environmental portion of HSE (health, safety and environment) PowerBi dashboard to inform asset group meetings. Nevertheless, we have not accomplished all the planned actions for the year. We will continue working on this throughout 2022.









United States



Action

Protect the environment and biodiversity near our activity.

Description

We will contribute to improving environmental protections in the indigenous community near our activity in Alaska with a project to upgrade the residential sewage system and other infrastructure projects, in alignment with the Environmental Impact Statement for our development project.

Indicator

Assign funding to start engineering for the system upgrade.

What we've achieved



We have assigned \$396,000 to start engineering for community and compliance projects in the Village of Nuiqsut that will include the wastewater treatment upgrade project, bridge replacement and Pikka boat launch project, of which \$110,000 has already been contributed in 2021.









United States



Action

Promote healthy and sustainable communities through environmental partnerships.

Description

We will partner with non-profit organizations to promote environmental awareness and support sustainability initiatives in the community.

Indicator

Participate in at least one project for the Eagle Ford Business Unit.

What we've achieved



We have contributed \$10,000 to support the Central Texas Floodplain Reforestation Program with the non-profit organization Tree Folks. The objective is to reforest two acres of critical riparian zone to improve management and protection of local waterways and capture CO_2 emissions in Travis County near our office in Austin, Texas.









Venezuela



Action

Contribute to the knowledge of the employees of the Venezuela Business Unit and to promote sustainable lifestyles and practices in order to reduce our ecological footprint on the environment.

Description

We will develop activities on aspects related to microplastics and their effects on living beings, single-use plastics and how to reduce their use, and planting plants at home and their benefits for the environment and quality of life. The first will be educational and informative and the second will be oriented to practical activities and exchange of experiences associated with contributing to the reduction of our ecological footprint.

Indicator

Conduct two online activities with the participation of personnel from the headquarters and the secondees.

Conduct an environmental contest among employees.

What we've achieved



We have carried out two online activities on circular alternatives, aimed at UN employees, providing knowledge and generating culture through the exchange with experts in the management of plastic and other waste, through the company "Plásticos El Tigre" and "Escuela de Reciclaje de San Cristóbal".

We designed a competition to strengthen knowledge on environmental issues, which is still pending execution.







Industrial Complexes



A Coruña



Action

Reducing emissions into the atmosphere.

Description

We will start up the G-53 project, associated with the process of one of the main conversion units, the FCC (Fluidised Bed Catalytic Cracking). This project, which has involved an investment of 19 million euros, aims to reduce the emission of particles into the atmosphere.

Indicator

Reducir un 30% las emisiones de partículas en la unidad de FCC.

What we've achieved



Following technological improvements to this FCC unit to adapt it to the latest European regulations, particulate emissions have been reduced by 30%.







A Coruña



Action

Promote actions to develop a circular economy with the environment.

Description

We will promote a circular economy strategy, which seeks operational efficiency, reduction of environmental impact, anticipation of regulation and the search for competitive alternative sources. We will work on projects to incorporate biogas generated from solid urban waste into the refinery for the production of green hydrogen and the production of advanced biofuels from sustainable raw materials and waste from households and the local agri-food industry.

Indicator

Develop at least two circular economy actions.

What we've achieved



At the Repsol refinery in A Coruña, we are studying and developing different projects, including five relating to the revaluation of different types of industrial, urban, agricultural and forestry waste.









A Coruña



Action

To carry out environmental improvement actions in the Industrial Complex.

Description

We will identify and implement improvements in our facilities, with the aim of improving our environmental performance, carrying out different actions to minimise waste, as well as to reduce the use of fresh water in the processes, promoting recirculation.

Indicator

Increase the rate of water reused compared to the average of the last four years.

Reduce waste in accordance with the Industrial Waste Minimisation Plan.

Comply with the budget of the Environmental Investment Plan.

What we've achieved



At the Refinery we have an Effluent Treatment Plant to treat the water we use. Part of this water is reused in the facilities, in 2021 we achieved an average reuse rate of 53.4%, higher than in the last four years.

We have also fulfilled the Waste Minimization Plan with an additional reduction of 60 tonnes compared to the established target and we have fulfilled the environmental investment plan with an investment of more than 800,000 euros.





Cartagena



Action

Integrate circular economy policies in our activity.

Description

We will encourage the application of the waste hierarchy principle, promoting the prevention of waste generation and encouraging waste recovery.

Indicator

Achieve 85% recovery of waste.

What we've achieved



The Cartagena refinery continues to be a benchmark in terms of waste management. exceeding the target set for 2021, achieving the recovery of 98% of waste. In 2021 we exceeded the target we had set ourselves, achieving the recovery of 98% of waste.





Cartagena



Action

Optimising our integrated water management.

Description

We will implement actions to maintain efficient water use, reduce water consumption and encourage water recirculation.

Indicator

Maintain water consumption intensity below the European average for the sector.

What we've achieved



As part of its commitment to the efficient use of water resources, the Cartagena refinery has continued to reduce water consumption in its facilities and its recirculation. In 2021 we had a specific consumption of 0.59 m3/t, again below the sector benchmark of 0.7 m3/t.







Cartagena



Action

Support the sustainable development of the Port of Cartagena.

Description

To take an active part in the sustainable development of the Port of Cartagena.

Indicator

Participate in the actions to disseminate the SDGs proposed by the Port of Cartagena and pass the verification of the good environmental practices guide.

What we've achieved



The refinery has participated in the initiatives of the Port Authority of Cartagena related to the Sustainable Development Goals. Furthermore, as in previous years, the industrial complex has applied the best environmental practices, passing the Port Authority's own verification process.









Petronor



Action

Incorporate, as raw material, used cooking oil (UCO) "kilometer 0".

Description

We will formalize commercial agreements with the authorized local managers of Used Cooking Oil (UCO) for the collection and later we will include it as a raw material.

Indicator

Formalize two agreements with authorized local managers.

Incorporate 20 tons as raw material.

What we've achieved



We have incorporated 157 tons of UCO as raw material in our industrial processes. We have also formalized an agreement with the authorized local manager (Oleofat). With the incorporation of this raw material, in the biojet manufacture, progress has been made in the decarbonization of commercial flights by supplying 5,300 tons of this fuel.









Petronor



Action

Carry out training activities with an environmental focus.

Description

We will provide environmental training to the Environment and Safety Technicians, TOMAS, with the focus set out in SDG numbers 6 (Clean water and sanitation), 9 (Industry, innovation and infrastructure) and 12 (Responsible production and consumption).

Indicator

Teach all the Environment and Safety Operation Technicians (six in total) as well as the six Shift Managers.

What we've achieved



We have carried out two training sessions for the technical personnel responsible, which have been eight, of the operational supervision of environmental aspects and each session has lasted three hours.









Petronor



Action

Increase the efficiency of water use in cooling systems.

Description

We will improve the operation of the tertiary system in the Refinery Water Treatment Plant (DAR) to increase the amount of purified water for industrial use.

Indicator

Increase the water recovered from the tertiary system in the Refinery Water Treatment Plant (DAR) by 28%.

What we've achieved



We have reached a 30% increase in purified water from the tertiary system. With this achievement we have managed to increase the water recirculation cycles in the cooling system.





Petronor



Action

Guarantee the quality of the analytical results related to the return to the sea of purified water.

Description

We will ensure the quality of sample analysis results related to environmental impact. We will carry out analytical intercomparisons with reference laboratories on aspects related to quality tests for the discharge of purified water into the sea.

Indicator

Carry out at least 5 analytical intercomparisons of treated water discharged into the sea.

What we've achieved



We have carried out 5 intercomparisons of water analyses, managing to show that the systematics applied, in the quality tests of the purified water in the discharge to the sea, are true and coherent.









Petronor



Action

Improve energy efficiency in acid water drains.

Description

We will install ammonium ion analyzers in the acid water exhausters of the units called TV3 and TF3, in order to optimize steam consumption and improve the quality of the water effluent to the refinery water treatment plant.

Indicator

Decrease the Steam consumption/charge ratio by 5%.

Reduce CO₂ emissions by 780 tCO₂/year.

What we've achieved



We have started the installation of the analyzers in December. The delay has been caused by the shortage of electronic elements caused by the COVID 19 situation.









Petronor



Action

Strengthen the surveillance network for the support of diesel tanks.

Description

We will reinforce the tank support surveillance network to guarantee early detection of possible containment losses.

Indicator

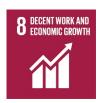
Install the containment loss detection system in five tanks.

What we've achieved



During 2021 we have installed the early detection systems in four storage tanks (80% of what was programmed). In 2022, we will tackle new objectives for these infrastructures.









Petronor



Action

Reduce waste generated by cleaning tanks.

Description

We will use automatic operation systems for cleaning prior to inspection and repair of tanks.

Indicator

Reduce solid waste from cleaning, prior to repair, of tanks by 70% of its volume.

What we've achieved



Due to the COVID19 situation, we have only been able to clean one storage tank. With the applied procedure we have managed to recover, as raw material, 100% of the tank cleaning residues.







Petronor



Action

Reduce volatile organic compounds (VOCs) in the inerting of tanks.

Description

We will use oxidation systems to eliminate Volatile Organic Compounds (VOCs) when opening tanks for repair.

Indicator

Reduce the Volatile Organic Compounds of the inerting, prior to repair, of the tanks by 90% of their volume.

What we've achieved



We have used low-temperature diesel oil to clean the heavy product tanks, so it has not been necessary to use the incineration of volatile organic compounds (VOCs), avoiding their emission into the atmosphere.







Puertollano



Action

Reduce the impact of atmospheric emissions and improve air quality through the use of biofuels.

Description

Through different initiatives, we will minimize the environmental impact of our activity. To this end, we will apply the best available techniques and advance in the development of projects that aim to produce biofuels in a more sustainable way. In addition, we will incorporate other biofuels into the production process, in line with the commitments made in Repsol's 2021-2025 Strategic Plan.

Indicator

Reduce 16,000 tons of CO₂ by incorporating vegetable oil and UCO in the middle distillate desulfurization units.

Reduce the equivalent emission of SO₂ into the atmosphere by 250 tons due to the incorporation of biofuels into the production process.

What we've achieved



We have stopped emitting 8,378 tons of CO₂ and 275 tons of SO₂ into the atmosphere by incorporating biofuels. As a positive point and despite the difficult economic situation, from November 2021 we began to introduce vegetable oils in the U-660 unit in addition to the U-643/614. This will allow us to have more units that can consume vegetable oil and reduce emissions. We continue to work to meet our decarbonization goals.









Puertollano



Action

Develop Circular Economy initiatives that improve environmental management and reduce waste generation.

Description

We will promote the principles of the circular economy in the environmental management of waste, reincorporating it into the production process. For this we will use waste (reprocessed plastics) as raw material and we will maintain the Zero Pellets project to avoid the arrival of pellets in the environment.

Indicator

Incorporate 100% of the hydrocarbons from reprocessed plastics provided by recovery companies into the production process.

Execute 90% of the actions of the Zero Pellets Plan to prevent plastic waste from reaching the environment.

Incorporate 100% of the used cooking oil provided by recovery companies into the production process.

What we've achieved



We have managed to incorporate 100% of the pyrolyzed plastic waste in our installation. This allows us to carry out circular economy management, thus closing the life cycle of our products. In the same way, by incorporating used cooking oil as a raw material, it allows us to have a raw material with less SO₂ and CO₂ emissions into the air. In the Zero Pellets Plan we will continue in 2022 prioritizing investments that lead to a greater reduction of pellets in the environment.







Puertollano



Action

Optimize water management by maximizing the recovery and quality of discharged water.

Description

We will promote the responsible use of water resources, minimizing water consumption and maximizing its reuse. The objective is to reduce the consumption of this natural resource and guarantee the quality of the water after its industrial use with new innovative projects.

Indicator

Incorporate 30% of the total recovered water from the complex over the total water collected.

Carry out a study with microbial electrochemical systems for wastewater treatment.

What we've achieved



We have worked to improve the quality of recovered water, becoming more efficient and consuming less raw water, which translates into greater protection of natural water resources such as fresh water. We have incorporated 41% of recirculated water over the total captured. We have met 100% of the objective by developing the two projects at *Repsol Quimica* and *Repsol Petróleo* by incorporating electrochemical bacteria that favor the degradation of organic compounds in the discharged water.







Puertollano



Action

Train all employees of the Puertollano Industrial Complex on environmental protection.

Description

We will promote online courses and training sessions on the environmental strategy and protection of our environment to minimize the impact of our industrial activity on the environment. The objective is to raise awareness of the importance of the entire organization complying with prevention measures and acting as a leader in the environment.

Indicator

Provide 12 days of training to shift staff.

Take a new online training course, updated to 2021

What we've achieved



Every year we update the training in Environment. Through 12 days of training we have reviewed the most important environmental incidents to remember the causes and improvement actions of each of the investigations, thus ensuring that we do not repeat past errors. We believe that training our staff in environmental matters is a priority, which is why we work every year to create new courses adapted to their needs.





Puertollano



Action

Increase circularity in our production processes.

Description

We will recover waste from the manufacture of polyolefins and reuse it as raw material to incorporate it into the production process. In this way we advance in our Circular Economy actions and implement innovative solutions to continue with our strategy of generating products with a low, null and even negative carbon footprint.

Indicator

Carry out industrial tests to reincorporate part of the waste (solvent and monomers) generated in the production of polyolefins into the production process.

What we've achieved



We have managed to reincorporate part of the waste (solvent and monomer) that is generated in the polyolefins production into the production process. We have carried out the necessary industrial tests to take advantage of a material that, otherwise, would not be used and would become waste, thus fulfilling 100% of the proposed objective.





Sines



Action

Promote the circular economy through waste management.

Description

We will carry out internal tests for the reuse of used oils in the manufacture of LDPE (low-density polyethylene). We will implement a new waste management contract and improve internal cleaning levels and waste recovery.

Indicator

Take the tests before December 31.

Implement the new service provision contract for the complex's waste management.

What we've achieved



We have carried out internal tests at an industrial level at the beginning of 2021, obtaining compatibility in the injection of used PEBD (low density polyethylene) oils in the "quench oil" circuit of the T2001, since no impact was generated in the Steam Cracker unit. We have also implemented a new waste management contract in March 2021.



Sines



Action

Continuous monitoring of NOx emissions.

Description

We will study the development of a system that allows the continuous monitoring of NOx emissions in order to improve the quality of the air in our environment.

Indicator

Finish the study of the project before December 31.

What we've achieved



We have approved the investment in the project for the continuous monitoring of NOx emissions from the Steam Cracker furnaces in April 2021, starting the project. We have installed the information processing equipment at the end of the year, pending the installation of the monitoring measurement acquisition equipment. This project will make it possible to continuously control atmospheric emissions from the Cracker furnaces, improving the quality of the surrounding air.









Tarragona



Action

Publish the Observatory on air quality in the "Camp de Tarragona".

Description

We will publish an explanatory document of the study (objectives, methodology, results, technical report, conclusions, articles for debate, new challenges), which will allow intensifying the monitoring and management of air quality in Camp de Tarragona. A study that verifies the levels of VOCs (Volatile Organic Compounds) in 15 towns, and offers reliable information on air quality and provides a tool that improves Repsol's transparency and trust with the environment.

Indicator

Publication of the 2021 Air Quality Observatory-Report.

Make six presentations to interest groups.

What we've achieved



We have published the explanatory document of the study, which confirms the levels of VOCs (Volatile Organic Compounds) in the populations surrounding the industrial complex, and offers reliable information on air quality. We have made seven presentations of the document to interest groups.







Tarragona



Acción

Actively participate in collective efforts to protect the environment.

Descripción

We will collaborate with the Department of Territory and Sustainability (DTES), the Repsol Public Advisory Panel (PPA), the Chemical Business Association of Tarragona (AEQT) and other agents in the territory, guaranteeing active participation to respond to social concerns and expectations.

Indicador

Comply with the action plan developed for the year 2021.

Qué hemos conseguido



We have executed 100% of the plan for 2021, highlighting the meetings of the Public Advisory Panel and the Camp de Tarragona Air Quality Observatory, as well as coordination meetings of the Environment Commission of the Chemical Business Association of Tarragona (AEQT). Visits from organizations interested in the 0 Pellets Project have also been accompanied and campaigns have been carried out to measure the acoustic impact of our activity in the surrounding Town Halls.







Tarragona



Acción

Carry out actions that allow the training and awareness of employees in matters of the environment, circular economy and SDGs.

Descripción

We will carry out actions to promote sustainable development and best practices in environmental matters..

Indicador

Comply with the training and communication action plan developed for the year 2021.

Qué hemos conseguido



We have fulfilled the actions of the training plan 100%. In Chemistry, 12 sessions were held with the assistance of 460 people, a group of ordinary working hours and shifts. In the case of the Refinery, 12 sessions were held with 294 attendees from the production, laboratory and shift security groups. The contents of the conference cover aspects of Circular Economy, Zero Pellets program, ODS, disclosure of Environment 2021 objectives and air quality in urban and industrial environments









6 More Information



If you want to know more information about the Sustainability Plans in which you find these actions you can visit our website repsol.com

