



SERVICIOS AMBIENTALES Y
GEOGRÁFICOS S.A.

ENVIRONMENTAL
CONSULTANCY

STUDIES
MONITORING
AUDITS
ENVIRONMENTAL MANAGEMENT

2024

SAG SA

is a company specialized in the provision of environmental consulting services. Constituted in 1998, located in the city of Medellin, Colombia



SAG S.A. is created in 1998 as a strategic alliance of engineering companies, in response to the need of organizations that require interaction with the environment, which also request the assistance of specialists in the planning and development of their environmental management process.

The existence of SAG S.A. generates a comparative advantage, which grants its customers an agile and timely access to an accumulated set of technological, logistical and knowledge – related resources. The provision of these services is granted to a high quality degree, endorsed through the following certified processes:

- Environmental management system Certificate:
NTC-ISO 14001:2015
- Quality management system Certificate:
NTC-ISO 9001:2015
- Occupational Health and Safety Management System
Certificate: NTC-ISO 45001:2018
- Quality management System accreditation for water and biota
sampling and in situ parameters (water and biota matrix)
Certification: NCT-ISO/IEC 17025:2017
- UNIFORM REGISTRY OF EVALUATION
OF THE SYSTEM OF SECURITY,
HEALTH AT WORK AND
ENVIRONMENTAL MANAGEMENT
The evaluation result for 2023: 91%





SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

CORPORATE PROFILE

MISSION

Integrate environmental aspects to the technical and economic aspects of development projects, in an efficient and effective manner, incorporating environmentally sustainable practices



VISION

Leading company in the field of environmental consulting with national and international projection.

VALUES

RESPECT

We know that people, society and the environment are our purpose yet these resources are not a mean to achieve our goals.



RESPONSIBILITY

We assume the results of our actions, for this reason we strive to ensure that the effects of our decisions and our actions add maximum well-being.



QUALITY

We always persevere in doing the best job and in looking for simple and effective solutions.



SERVICE

We strive to understand the needs of our customers and meet their demands in an agile and efficient manner. We value our success according to the contribution to the success of our clients.



TEAMWORK

To ensure achievements according to common objectives: we combine capacities and efforts, we maintain a receptive attitude; We value the diversity of opinions and cultivate relationships of trust.



INNOVATION AND CREATIVITY

We maintain a renewing and an openness to change attitude, seeking to identify new opportunities to do things better and learn from our successes and failures.





The company's services are oriented towards the integration of technical and economic aspects of development projects in any type of organization, including the environmental aspects that are inherent to them.

STUDIES

- Climate Change Management Plans
- Renewable Energies
- Environmental Restrictions analysis
- Environmental Diagnosis of Alternatives
- Environmental Impact Assessment
- Environmental Compliance Reports
- GDB elaboration
- Connectivity Studies
- Analysis of Ecosystemic services
- Analysis of Habitat fragmentation
- Subtraction of protected areas
- Loss of Biodiversity compensation
- Load Capacity (System Dynamics)
- Environmental Economic Valuations
- Archaeological Prospecting
- Risk Management Plans
- Contingency plans
- Environmental liabilities
- Cumulative Impacts
- Environmental Externalities
- Carbon footprint
- Water footprint
- Water, Air, Noise and Vibration Quality Modeling
- Hydrological and Hydraulic Studies
- Ecological flows estimates
- Formulation of Productive Projects
- Gender equity studies
- Sustainable Mobility Studies

AUDITS

- Due diligence
- Principles of Ecuador
- Work supervision
- Audits

GESTIÓN

- Rescue of Flora and Fauna
- Rescue and Monitoring of Epiphytes
- Forestry Exploitation
- Ecological restoration
- Archaeological Monitoring and Rescue
- Social management
- Permit Management
- Environmental Monitoring
- Execution of Management Plans
- Environmental Training
- Water, Air, vibration, Noise and Water Quality Monitoring





Nowadays, SAG S.A. participates committedly in the achievement of the objectives among with 280 plant employees in the areas of:

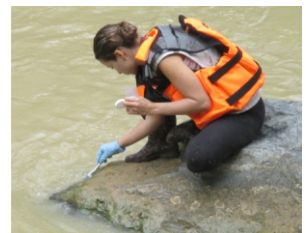


- Environmental engineering
- Sanitary Engineering
- Chemical engineering
- Civil Engineering
- Geological Engineering
- Forest engineering
- Agronomic Engineering
- Biological Engineering
- Biology
- Economy
- Anthropology
- Sociology
- Social work
- Psychology
- Law
- Industrial Security
- Architecture



With higher education in:

- Hydraulic resources
- Environmental engineering
- Environmental legislation
- Limnology
- Environmental education
- Environmental Management
- Project Evaluation
- Ecology
- Studies and work supervision on hydraulic works
- Forests and Environmental Conservation
- Environmental Audits
- Social responsibility
- Geographic information systems





SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

EXPERIENCE ON CLIMATE CHANGE

CLIMATE CHANGE MANAGEMENT PLAN



www.publicdomainpictures.net/pictures/90000/velka/effects-of-climate-change.jpg

SAG has supported the environmental management of some of its clients in the Oil & Gas and Mining sectors in the formulation and implementation of the Comprehensive Climate Change Management Plan. The activities carried out have been focused on climate change adaptation and variability actions that contribute to reducing the risk to renewable natural resources and the environment.

In addition, SAG has developed a tool for calculating corporate carbon footprint, which represents the total volume of greenhouse gas (GHG) emissions produced by the economic and daily activities of the company, through the calculation of emissions in tons of CO₂ equivalent. This tool will enable the formulation and implementation of necessary initiatives for the reduction and mitigation of such gases.



1 COLLECTION OF CORPORATE INFORMATION

2 EMISSIONS INVENTORY

3 MITIGATION, REDUCTION AND ADAPTATIVE STRATEGIES



PROMIGAS

Development of the Comprehensive Corporate Climate Change Management Plan, which included the following activities:

- Quantification of scope 1, 2, and 3 greenhouse gas emissions, including carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) in tons of CO₂eq; following the Colombian Technical Standard NTC-ISO 14064-1: 2006.
- Greenhouse gas mitigation actions for the project, registered in accordance with the guidelines of Resolution 1447 of 2018 related to the National Registry of Greenhouse Gas Emission Reductions and Removals - RENARE.
- Climate change adaptation and variability actions contributing to reducing the risk to renewable natural resources or the environment.
- Presentation of results and specialized consultancy.



Greenhouse Gas Emissions Inventory for Mining Project, which included the following activities:

- Identification of emissions associated with operations, classifying them as direct or indirect emissions.
- Identification of potential emission reduction sources.
- Calculation of GHGs for Scope 1 and 2 (according to NTC-ISO 14064-1) for precious metal extraction operation.
- Recommendations for emissions minimization and for the maintenance and updating of the inventory.



Monitoring of compliance with the Comprehensive Climate Change Management Plan, including the review of scheduled and executed activities, compliance percentages, as well as analysis of results within the framework of the Environmental Compliance Report and Corporate goals of the company.

www.sag-sa.com



SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

EXPERIENCE ON RENEWABLE



Source: Solar Farm Porton del Sol Project, ENERFIN

SAG has a wealth of experience in various services related to environmental issues and Renewable Energies. Among these, the following aspects stand out:

LICENSING PROCESSES

SAG has been involved in the permitting process for two Solar Parks, one before ANLA (National Environmental Authority) and the other before Corpocaldas (Regional Environmental Authority), totaling 219 MW for EPM and Elecnor.



ENVIRONMENTAL IMPACT STUDIES



Currently, three Environmental Impact Studies for Photovoltaic Solar Parks are underway for Voltalia, AboWind, and MCP, totaling 160 MW.

FRAMEWORK CONTRACTS

SAG holds Framework Contracts with EPM and ISA INTERCOLOMBIA for environmental activities, including renewable energy projects.



ENVIRONMENTAL RESTRICTIONS AND CRITICALITIES

For the analysis of environmental restrictions and criticalities (ARAS by its acronym in Spanish) on properties for solar parks, SAG has conducted six ARAS in the past year for EPM, Voltalia, Greenyellow, and Ecopetrol.



ENVIRONMENTAL SUPERVISION



SAG is conducting the environmental oversight of the Alpha and Beta Wind Farms in La Guajira for EDPR and the construction of the Portón del Sol Photovoltaic Solar Farm for Enerfin.

DUE DILIGENCES

In recent due diligence efforts, SAG has undertaken, among others, the Alpha and Beta Wind Farms in La Guajira for EDPR and the HPP (Hydroelectric power plant) Miel I for EDF.





SERVICIOS AMBIENTALES Y
GEOGRÁFICOS S.A.

EXPERIENCE
SAG



ENERGY GENERATION

SAG S.A. has participated in studies, management and socio-environmental training of important energy generation projects. In this type of projects, SAG S.A. has contributed in the different stages of such studies, from the initial identification, covering the designs, construction and operation.



ENERGY TRANSMISSION

The company's experience includes route analysis, diagnostics, study and assessment of environmental impacts, as well as monitoring and environmental supervising in the construction of energy transmission networks.



MINING SECTOR

SAG S.A. has experience in the industrial sector related to the formulation of waste control strategies resulting from industrial processes and in the formulation of environmentally friendly industrial strategies.



www.sag-sa.com



SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

EXPERIENCE SAG

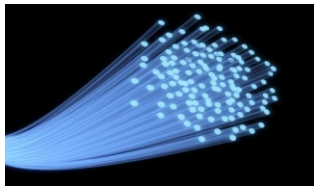
INDUSTRIAL SECTOR

SAG S.A. has experience in the industrial sector related to the formulation of waste control strategies resulting from industrial processes and in the formulation of environmentally friendly industrial strategies.



TRANSPORTATION, ROADS AND COMMUNICATIONS SECTOR

These sector's companies have considered SAG S.A. as an important ally in the evaluation and development of different strategies for planning, and for assuring the protection and sustainability of linear corridors of transport, as well as communications at a national level.



GOVERNMENT SECTOR

SAG S.A. has supported different governmental projects with its knowledge, both regionally and locally, focused on natural resources management, waste disposal, monitoring and evaluation programs, including also sustainable development programs with different communities.



www.sag-sa.com



SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

AWARDS / RECOGNITIONS

In 2020, Servicios Ambientales y Geográficos S.A. (SAG S.A.) was recognized as the winner in the business category for its Gender Equity practices in the Third Edition of the Recognition of Good Practices in Sustainable Development under SDG 5.

UN COMPACT GLOBAL – COLOMBIA NETWORK



AWARD: OUTSTANDING SUPPLIER

Servicios Ambientales y Geográficos S.A. (SAG) has consecutively received the "Outstanding Supplier" award in the years 2018, 2020, and 2023 from ISA INTERCOLOMBIA, an award celebrated every two years. The criteria for this recognition include:

- Contracts signed with ISA INTERCOLOMBIA between April 1, 2018, and July 3, 2020.
- Contracts with a duration of more than 60 days.
- Score equal to or greater than 90 points in performance evaluation.
- Survey of technical contract administrators.



www.sag-sa.com



SERVICIOS AMBIENTALES Y GEOGRÁFICOS S.A.

SAG PUBLICATIONS

SAG Economic and Environmental Valuation

“Building on the practices carried out within their roles at SAG, some employees with experience in environmental studies and economic valuation revisited several exercises applied in different contexts and regions of the country, which were condensed into a book format.

The purpose of this book is to deepen and strengthen, not only from an academic debate but also from the consulting practice, the implementation of economic valuation as a fundamental component of the environmental licensing process.”



Illustrated Catalog of Epiphytic Species

ISA INTERCOLOMBIA S.A. E.S.P, in collaboration with Servicios Ambientales y Geográficos (SAG S.A.), publishes the “Illustrated Catalog of Epiphytic Species” within the framework of socio-environmental management, identifying species within the life zones encompassed by the influence area of two projects. This publication is in compliance with the requirements of the Ministry of Environment and Sustainable Development for the projects: Transmission lines from the Sogamoso substation to the National Transmission System – STN (COSOGA), and the connection line of the Sogamoso Hydroelectric Plant (COCHIS).

Illustrated Catalog of Tree Ferns

This illustrated catalog describes the tree ferns identified in the life zones within the influence area of the projects: transmission lines from the Sogamoso substation to the National Transmission System – STN and the connection line of the Sogamoso Hydroelectric Plant, as part of the socio-environmental management by ISA INTERCOLOMBIA S.A.

E.S.P, and in accordance with the requirements of the Directorate of Forests, Biodiversity, and Ecosystem Services of the Ministry of Environment and Sustainable Development.

In this manner, ISA INTERCOLOMBIA S.A. E.S.P and its contractor SAG S.A. join forces to publish this catalog, which introduces the communities in the influence area and the general population to the various species of tree ferns identified in the samplings conducted within the framework of the Environmental Impact Study – EIA – and the implementation of environmental management measures designed for high-voltage power transmission lines.





Red Colombia
Nosotros apoyamos

Calle 11 B No 40A - 130 Piso 4
Teléfono: 57(604) 403 55 70
Fax: 57(604) 312 22 98 sag.sa@sag-sa.com
MEDELLÍN ~ COLOMBIA ~ SURAMÉRICA
www.sag-sa.com

2024