



ADAMA

ADAMA ESG Report 2022

Listen ▶ Learn ▶ Deliver



Content



03 Introduction

- Messages from our CEO and CSO 4
- 2022 ESG Highlights 6
- About ADAMA 7
- Sustainability at ADAMA 11



22 Our Products

- A Growing Set of Challenges 23
- Portfolio Health: Toward a More Sustainable Product Portfolio 25
- Our Product Portfolio 26
- Stewardship 33
- Agricultural Technology ... 34



36 Our Environmental Sustainability

- Environmental Impact 37
- Reducing our Carbon Footprint 42
- Reducing Energy Use 45
- Reducing Water Use, Effluents, and Waste 48
- Bringing Sustainability to our Chinese Facilities 52



55 Our People and Communities

- Our People Promise 56
- Fair Employer 57
- Health, Safety and Welfare 59
- Learning and Development 66
- Diversity, Equity and Inclusion 70
- Community Relations 75



83 Our Governance and Ethics

- Our Corporate Governance 84
- Upholding Ethical Behavior 91



96 Annex

- About this Report 97
- Disclosures 98
- Independent Limited Assurance Statement 136



ADAMA

Introduction





Message from our President and CEO, Steve Hawkins

Having worked in the agricultural sector for my entire career, I've learned that to implement organization-wide values the whole organization needs to be involved.

It brings me great pride to be part of ADAMA, a company where sustainability is ingrained in our corporate DNA, shaping our culture, and defining our value proposition.

We're proud to be a crop protection company. Our mission is to provide farmers with the products they need to feed the world – not just for today, but for tomorrow, next year, and the next century. As such, sustainable farming and sustainable products hold strategic importance for ADAMA, and sit comfortably alongside our commitment to actively listen, learn, and deliver.

Farmers are at the front-line of the struggle to produce enough food for everyone on a changing planet. With their connection to nature, they value sustainability as the key to protecting the soil and ensuring necessary yields. Whenever I engage with growers, they often speak about the necessity for new tools and solutions to farm sustainably, addressing their changing agronomic practices, new regulatory requirements, and consumer preferences.

With new Active Ingredients (AIs) dwindling, we're turning our portfolio into an innovation engine by optimizing the performance of existing AIs with proprietary, advanced formulation technology platforms. This improves on-farm sustainability, drives higher yields, increases product efficacy, and solves key agronomic challenges quickly. We also continue to collaborate with agricultural technology companies to find new ways to complement our solutions such as with prescription engines and decision-support tools.

Our commitment to reducing our environmental footprint is the foundation of our sustainability efforts. In the past three years, we have invested over 300 million USD in environmental upgrades, including sustainable improvements to wastewater treatment facilities in our Global Operations. We have adopted a multi-pronged effort to reduce GHG emissions, by transitioning to carbon-free renewable and hydrogen fuel, as well as changing over to electric vehicles.

The health and safety of everyone affected by our value chain, starting with our own employees, to the farmers who use our products, is of paramount importance. Our goal is to achieve zero severe injuries in our operations, and to this end, our global unified health and safety management system ensures accountability at the highest levels of management.

I am honored to lead a company that not only talks about sustainability but takes meaningful action and achieves tangible results. At ADAMA, we embody a practical approach to sustainability, where our commitments are not mere ideals but the driving force behind our day-to-day operations.

I would like to take this opportunity to thank our people for driving the whole company forward and for putting into practice our steadfast commitment to making a positive impact on the world.

A handwritten signature in black ink, appearing to read 'Steve Hawkins'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Steve Hawkins
President and CEO



Message from our Chief Sustainability Officer, Dr. Juan Valero

I joined ADAMA at the beginning of 2022 as the company's first dedicated Chief Sustainability Officer, and I am incredibly proud to report on our progress.

Successfully embedding sustainability in our business requires the ability to move quickly from theory to actual implementation and an aptitude for bringing simplicity to complex challenges. That's what I found at ADAMA.

We are taking a practical and focused approach to sustainability, addressing four distinct pillars:

- Measuring the sustainability of our portfolio
- Delivering a pipeline of sustainable products
- Improving our manufacturing and business operations; and
- Embedding our strategy through a company-wide Sustainability Network

It starts with our products. We strive to lower the amount of product needed without compromising efficacy, to reduce their footprint, and complement our portfolio with biological and technological solutions. One outstanding example is Mastercop ACT[®], which provides proven disease control with 50% lower copper load for both conventional and organic farmers.

Another example is our new High Load Formulation Platform, allowing us to develop products with much smaller overall volume. In Australia, from 2020 to 2022, our 25 high-load products reduced product volume by 10.8 million liters. This equates to 1 million fewer drums and caps, 541 fewer trucks on the road, and 32,000 fewer pallets, significantly reducing carbon emissions.

We constantly invest in reducing our environmental footprint. We're proud that in 2022 we had a 20% decrease in water consumption and wastewater discharge; achieved a 9% reduction in hazardous waste generation, and recycled 49% of hazardous and non-hazardous waste.

Our carbon footprint is still higher than it should be. We have set a target of reducing

scope 1 and 2 carbon emissions by 5% on average every year until 2030, doing our part to meet the 1.5°C Paris Agreement. In 2022, we had a 20% increase in absolute value due to higher production volumes, which resulted in a 0% intensity change vs. 2021. Still, we are confident that we can meet our targets by 2030 by managing our energy mix and increasing productivity.

A great example of how we will achieve this is our Galil production line. In 2022, we cut CO₂ emissions by 11.4 tonnes annually through a focused initiative. Now we are evaluating similar processes for our other leading products.

Our people are at the center of our sustainability progress. We are committed to workplace safety, diversity and inclusion, along with the well-being of the communities in which we work. Our culture and actions have formed ADAMA into a place where people come to grow, develop, find support, and achieve individual and mutual goals. We are pleased to have presided over \$2.8 million in community donations during 2022, encouraged our people's involvement in community volunteering, and helped reduce societal inequality through educational and other social programs.

Our goal is to encourage a sustainability minded culture. In 2022, we established a Sustainability Network with representatives from all functions and commercial units, ensuring that sustainability is infused throughout the entire organization, and that we progress against our set goals.

With our commonsense approach, the dedication of our people, and our focus on four enabling pillars, we are well positioned to become a sustainability leader in our industry.

Dr. Juan Valero
Chief Sustainability Officer

2022 ESG HIGHLIGHTS

Our Products

57 new product launches -
22 Herbicides, 14 Insecticides,
19 Fungicides and
2 Bio-stimulants & PGR

Proprietary Formulation
Technology Platforms for:

- Low Dose products that decrease Active Ingredient amounts with same or better efficacy
- High Load products that reduce carbon footprint and environmental impact

More than **50** biological products in our portfolio



Our Environmental Sustainability

0% carbon footprint intensity change vs 2021, despite 19% increase in absolute volume

20% decrease in water consumption and wastewater discharge vs. 2021

9% reduction in hazardous waste generation

302M USD invested during the past 3 years

49% of hazardous and non-hazardous waste is recycled



Our People and Communities

31% of all open positions were filled internally

87.6% employee retention rate

30.6% of workforce and **38.4%** of managers are over the age of 50

~25% of workforce and **~24%** of managers are women

~2.8M USD in community donations



Our Governance and Ethics

88% of our people completed the COC yearly training

Zero incidents of corruption

Zero incidents of non-compliance with laws and/or regulations in the social and economic area

ADAMA's Board of Directors held **10** meetings with a **100%** attendance rate



General

Established Sustainability Management Team with new nomination/roles of full time **Corporate Sustainability Officer (CSO), Corporate ESG Director, DEI Director**

Formulated Sustainability Network - Composed of leading representatives from all ADAMA's regions and global functions leading sustainability throughout the company

5.5B USD of economic value distributed to employees, suppliers, and local governments



ABOUT ADAMA

At ADAMA, we are passionate about understanding and fulfilling local farmer and customer needs, so farmers can do what they do best: feed the world.

We accomplish our goal by staying true to our brand promise:
Listen > Learn > Deliver

With a straightforward, get-it-done attitude, we listen to our employees, customers, partners, and other stakeholders, learn from their experience, and deliver solutions to combat weeds, insects, and disease in over 100 countries globally.

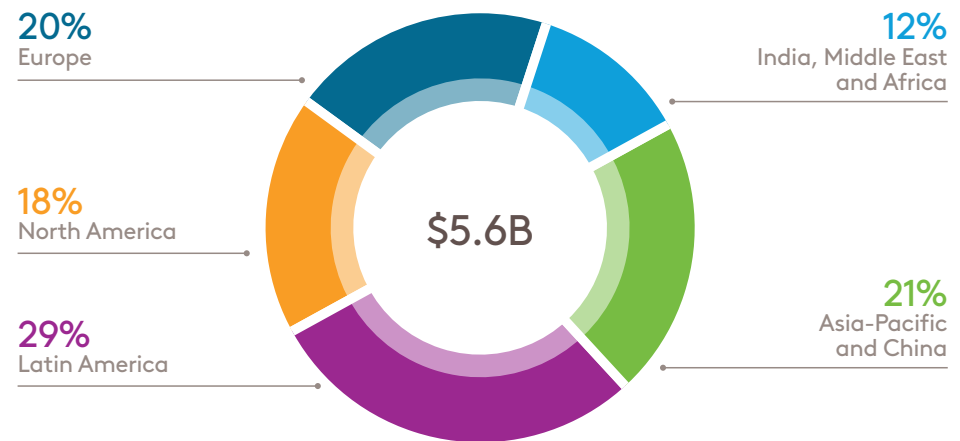
ADAMA's industry-leading portfolio of more than 300 Active Ingredients (AIs), form the building blocks for our extensive crop protection offerings. This, together with state-of-the-art R&D, manufacturing, synthesis, and formulation facilities, enables us to deliver innovative products based on our own advanced Formulation Technology platforms. These novel platforms form the core of our sustainability strategy, enabling us to quickly bring to market superior products that improve crop yields while increasing sustainability.



ADAMA at a Glance

7th largest global crop protection company	~100 countries with commercial presence	5 ADAMA's top markets: Brazil, USA, China, India, Australia
\$5.6B sales out of \$73B global market	22 synthesis and formulation facilities worldwide	2 fully backward-integrated production hubs in Israel & China
4 state-of-the-art R&D centers	>300 Active Ingredients, building blocks for differentiated offering	5 leading crop segments: soybean, cereals, F&V, cotton, corn
>9,000 employees		A member of 

Sales in 2022 in %



Our Journey

Our Story & Culture

Our company's story begins with four young entrepreneurs whose passion for chemistry drove them to launch two Israeli crop protection companies, Agan (1945) and Makhteshim (1952). Both played vital roles in shaping Israel's ground-breaking chemical and agricultural industries, and together they became an international powerhouse when they merged in 1997 to create Makhteshim Agan. With the launch of our global brand in 2014, the company became known as ADAMA.

Today, ADAMA is a member of the Syngenta Group, one of the world's biggest agricultural technology companies, with roots going back more than 250 years.

As we've grown over the years, from a local manufacturer of active ingredients to a global leader in the crop protection industry, we have become a more diverse company with people who bring different experiences to the table. Throughout this transformation we've remained connected to a deeply ingrained core set of values, a guiding purpose, and a shared understanding of what leadership means.

Our Purpose

Creating Simplicity in Agriculture. We understand that farming is complex and full of challenges. At ADAMA we work together with farmers, agronomists, distributors, and the wider farming community to find ways to simplify it.

This is how we stand behind our purpose of creating simplicity in agriculture.

Our Leadership Framework

Our leadership framework describes what we value as leaders in ADAMA and encodes it in a framework that helps guide the way we lead now and in the future.

This framework establishes a set of guiding principles for all our leaders. It transcends all levels, and aims to help each of us develop our mastery over time.

Our Values

Our values and purpose are about who we are as a company. They are our DNA and they serve as a compass that guides our behaviors.



GETTING IT DONE

Our get it done attitude drives us to constantly seek better, more effective solutions for our customers with energy and enthusiasm. We roll up our sleeves to meet their challenges, keep our promises, and deliver results. That's when we're at our best.



CREATING SIMPLICITY

We keep things simple. That's because we get how complex and challenging farming and our industry is. We bring a straightforward and clear approach to doing business with our customers and work hard to make farmers' lives easier with effective, easy-to-use solutions.



EMPOWERING PEOPLE

Each of us has the freedom to act, to bring new ideas to strengthen ADAMA and improve the solutions we provide our customers. We're empowered to take initiative and to think entrepreneurially. This goes together with a commitment to mentor, train, inspire, and provide resources to help us perform better.



PASSION

Our passion is the fuel that propels us. We're passionate about agriculture and the role we play in helping farmers produce the food needed to nourish the planet. We're dedicated to the success of ADAMA and the success of our customers, partners and colleagues around the world.

Economic Impact

Direct and indirect economic value generated (in thousands, USD)

Data Description	2021	2022
Direct economic value generated: revenues (total net sales)	4,813,041	5,569,988
Total operating costs (including R&D expenses, employee wages and other expenses)	4,741,003	5,470,168
Total payments to employees including wages and benefits (pension, social security, etc.)	560,386	610,612
Total payments to suppliers	3,409,752	4,449,466
Total amount paid to providers of capital	12,349	11,591
Capital expenditure	401,655	396,632
Total payments to governments (taxes, etc.) by country	59,045	22,163
Total community investments	2,599	2,827
Total economic value distributed	4,814,996	5,506,749



SUSTAINABILITY AT ADAMA

Our Approach to Practical Sustainability

At ADAMA we approach sustainability the same way we approach most things in our business: we're driven by results, humble in our style, and work hard to bring simplicity to the complex challenges farmers face daily. Regenerative and sustainable farming has become a priority for growers and consumers everywhere.

To ensure strong crop yields while maintaining or improving the health of the soil, water, and other natural resources, farmers need safe and effective solutions that protect and stimulate the plants. Our responsibility is to develop new solutions that respond to the ever more complex agronomic challenges, and produce and deliver them with the lowest possible impact on people and the environment.

At ADAMA we concentrate on delivering tangible sustainability benefits to the farmers and channel partners we serve.

Our Practical Sustainability approach extends beyond the products we develop, to the way we manage our operations and run our company.

We have embedded sustainability in our core business strategy and are optimizing our portfolio by focusing on fast and agile innovation to respond to the changing agronomic challenges farmers face. Our focus is to reduce the environmental footprint of our products with new formulation platforms that allow for lower application rates and volumes.

Practical Sustainability in our operations means we invest in what matters most: reducing our carbon footprint, the waste we create, and water we use. We are committed to worker safety, workplace diversity, equity and inclusion, and the well-being of the communities in which we work.

Finally, we are turning sustainability into a key part of our teams' day-to-day work and a measurement of success for a growing group of people from diverse functions across ADAMA, our sustainability network. A practical approach for a practical company.



A Business Strategy with Clear and Focused Sustainability Outcomes

ADAMA is proud to be a crop protection company. We're passionate about delivering smart, high-quality products and solutions to ensure farmers can grow healthy yields to meet the growing demand for nutritious, safe, and affordable food.

We select the newest, most effective, and safest Active Ingredients (AIs) and Biologicals to create our pipeline of products, regardless of where they were initially developed. Over the past five years we have identified 24 leading molecules from across the industry that have begun to be introduced to our portfolio - all with better health and environmental safety profiles, and extended our Biologicals product range with more than 50 products. At the same time, we maintain older molecules in our portfolio that play a critical role in resistance management.

But we do not stop there. **ADAMA has invested years of research, design, and testing to create proprietary, advanced Formulation Technologies that allow us to take existing molecules and combine or transform them into more effective, sustainable, and user-friendly products.** Our fast and agile innovation strategy effectively turns off-patent AIs into patented, superior products with key sustainability attributes that farmers and the food value chain are telling us they want. And our goal is to do this faster and more often than any other company.

We begin our innovation cycle in the field, listening to farmers and capturing the real-life challenges that growers face in farming sustainably. That means taking time to learn about the new agronomic practices being adopted to meet ever-changing environmental conditions, regulatory restrictions, and consumer demands. And when we identify a particular feature or benefit that growers need - lower residues, lower volumes, optimized penetration, limited drift, rainfastness, soil mobility, or overcoming AI incompatibility - we can embed it in our products, using one of our Formulation Technology Platforms.

The bottom-line business sustainability outcomes are clear: Our unique innovation platforms allow for Low Dose products that decrease the amount of Active Ingredient applied by farmers per hectare while achieving the same or better results than market leading products. Our growing Biologicals portfolio allows farmers to optimize the use of crop protection and increase the quality and marketability of their crops. And our High Load technologies reduce the amount of product that needs to be produced, packaged, shipped, stored, and disposed of, lowering the carbon footprint of our channel partners and customers.



Our Materiality Assessment

During 2019-2020 we conducted extensive research among our employees, farmers, retailers, and consultants in 13 of the markets in which we operate. The purpose of the study was to listen and gather insights, expectations, and trends from these main stakeholder groups for the benefit of deepening our understanding and learning more about our products, our perceived added value, and brand. During 2022, we updated this research using industry practices, analyzing SASB sectoral materiality topics, CDP, and EcoVadis.

Through this process, we identified the seven material sustainability topics that are essential to us and serve as the organizing guidance of this report:

1. Products - sustainability, quality, high efficiency, safety, and innovation (including stewardship, new and unique solutions, wide range of products)
2. Environmental sustainability - climate risks and opportunities management, environmental compliance, hazardous and toxic material management, and environmental management
3. Responsible supply chain
4. Farmers' empowerment - information, tools, and technology
5. Ethical business conduct
6. Employees - DEI, empowerment, and development
7. Community relations and employee engagement

2030 Targets

Average 5% annual reduction of carbon emissions in scope 1 and 2 (own production and energy) to align with 1.5° Paris Agreement

Significantly increase our sales of "Sustainability Leading" products, including Biologicals

Our Sustainability Governance

We manage sustainability just as we manage all our business activities, and in 2022 we further defined the framework of managers with sustainability roles. The people involved are at all levels, each with clearly delineated functions and responsibilities that enable us to set and meet our sustainability goals.

Board of Directors

Oversees and evaluates the impact of ADAMA's sustainability strategy, tracks progress achieved against goals, and provides guidance to management.

Chief Executive Officer

Oversees global sustainability activity and directs the CSO.

Strategic Council

A new forum that was formed in 2022. Receives quarterly reports on sustainability from the CSO. Reviews progress on goals, new initiatives, commitments, and challenges. Recommends actions, as necessary, to ensure continuous performance improvement and alignment with stakeholders' expectations.

Chief Sustainability Officer (CSO)

Sets the direction for sustainability across the organization globally. Identifies targets, supports global and local initiatives, and oversees progress across the company.





Corporate ESG Director

A new role initiated in 2022. Responsible for monitoring sustainability progress, promoting local initiatives, community activities, publishing the annual sustainability report, and supporting the response to selected ESG ratings.

Sustainability Network

Composed of leading representatives from all ADAMA's regions and global functions, responsible for development, implementation, and communication of sustainability initiatives across ADAMA. The network meets once a month with CSO to review progress, ensure targets are being met, develop mitigation plans where they are not, and share knowledge and best practices.

Global Units

Business Sustainability	Operations	Quality & HSE	Social	ESG & Communication
	IDR	Marketing	AgTech & Digital	

Commercial Units

Sustainability lead EAME	Sustainability lead US	Sustainability lead Brazil	Sustainability lead ANZA & India	Sustainability lead LATAM
--------------------------	------------------------	----------------------------	----------------------------------	---------------------------



Our Stakeholders

Our business and sustainability strategy is informed by an ongoing dialogue with our key stakeholders as we continuously Listen, Learn and Deliver. Sustainable agriculture is too important, and too complex, for one business to lead the agenda alone. Therefore, we place great emphasis on stakeholder interaction, to ensure that our actions toward sustainability meet their needs.



Key stakeholder group	ADAMA's commitment and main channels of communication	Main areas of interest
Farmers and Customers	ADAMA invests time, energy, and resources to be our customers' number one partner of choice. We develop and produce high quality, effective, and safe products that answer the pressing needs of growers around the world to protect their crops and enhance the sustainability of their farming practices. Our local technical and agronomic teams provide expert advice to growers, advisors, and retailers to ensure they use the most effective solutions available and apply ADAMA products in a safe and sustainable way. We work in partnership with our channel partners to deliver products on time, so that growers have them available when needed most. ADAMA also places a premium on making it easy to do business with us, striving to be responsive and agile, so that distributors and retailers can focus on supporting their customers - the farmers.	<ul style="list-style-type: none"> • Product efficiency and safety • Fair pricing • Product sustainability - supporting sustainable agriculture
Our People	By actively listening and seeking additional opportunities to hear our people, we seek to improve as a company. In addition to ongoing dialogue, we implement periodic engagement surveys, and a "360° Assessment" of managers. We actively involve our people in formulating initiatives to improve their safety and well-being; we hold regular meetings with managers and use internal communication channels to invite our people to give us feedback and share suggestions.	<ul style="list-style-type: none"> • Safe and healthy work environment, culture • Work-life balance • Learning and development, career opportunities
Our Communities	We apply our listening approach to the communities we operate in and build personal, lasting relationships with our partners. With each collaboration that we initiate or engage in, we take time in advance to understand the needs of those involved, whether they are local authorities, welfare departments, NGOs or other local organizations. We continue conducting an ongoing dialogue with our partners throughout the year.	<ul style="list-style-type: none"> • Community resilience • Employee volunteering • Community initiatives • Environmental compliance

Key stakeholder group	ADAMA's commitment and main channels of communication	Main areas of interest
Our Suppliers	We are in continuous contact and dialogue with our suppliers, who are our business partners. Together we explore opportunities for innovation and improvement, and promote mutual business success.	<ul style="list-style-type: none"> • Material quality and safety • Innovative materials • Ethical business conduct • Human rights • Environmental compliance • Terms of payment
Regulators and Government Authorities	We keep an open, direct, and transparent dialogue with relevant regulators through our government affairs department. We make sure to present our position on relevant issues and seek dialogue.	<ul style="list-style-type: none"> • Ethical business conduct • Environmental compliance
Our Shareholders and Investors	We communicate and hold meetings with investors, shareholders, and bondholders.	<ul style="list-style-type: none"> • Periodic financial filings • Financial press releases and other news of financial importance • Quarterly analyst conference calls • Online roadshows



Our Industry Memberships

We recognize the importance of participating in international and local committees and organizations to achieve improvement in industry-related issues. This activity allows us to create a dialogue and share knowledge with other industry members and with governmental and non-governmental organizations, to benefit all stakeholders. We believe that the ability of farmers to meet the needs of a growing global population while using fewer natural resources and reducing greenhouse gas emissions depends on collaboration across the agricultural community. We are therefore pleased to work with various industry organizations, to help us to incorporate sustainability into every aspect of our operations.



Crop Life Europe (CLE) represents the crop protection industry. Its members are leading global companies and European national associations working in conventional pesticides, biopesticides, plant biotech innovation, and digital and precision farming. CLE's aim is to help European farmers transition toward a more sustainable and resilient agriculture, providing the largest toolbox possible for them to choose their preferred production model.



MAALA a leading non-profit umbrella organization for corporate responsibility/ESG in Israel that was founded in 1998. ADAMA has participated in MAALA's ESG rating system since 2006 and received a "Platinum" medal.



AIPPI is the world's leading non-profit association dedicated to the development and improvement of laws for the protection of intellectual property. It is politically neutral, based in Switzerland, with over 8000 members from over 110 countries worldwide.



China Crop Protection Industry Association (CCPIA), founded in April 1982, is one of the earliest trade associations in China's chemical industry. It is a cross-regional, cross-departmental and cross-industry non-profit organization with independent legal person status. It accepts the business guidance, supervision and management of relevant ministries and commissions of the state according to law. The association has more than 700 members. ADAMA is the vice leader member of CCPIA.



China Petroleum and Chemical Industry Federation (CPCIF) was founded in Beijing on April 28, 2001. This was a major leap forward in the management system of the petroleum and chemical industry after the reform of the government's economic management function from the Ministry of Chemical Industry to the State Bureau of Petroleum Chemical Industry in 1998.

The China Petroleum and Chemical Industry Federation now has nearly 600 members. Sinochem is vice leader member of CPCIF.



The Manufacturers' Association of Israel (MAI) serves as an umbrella organization for industrialists in Israel. The MAI actively participates in decision making at all levels of government, particularly focusing on issues that affect the macro-economic environment in which its constituents do business.

The MAI also leads the Chemical, Pharmaceutical, and Environmental Industries Association as the home to over 220 member organizations that represent these relevant sectors.

Eran Segal, Head of Global HSE & Operational Sustainability at ADAMA, serves as the chairman of the environmental sustainability committee of the Manufacturers' Association of Israel.

Ziv Dagan, General Manager, Israel Domestic Market Agan, serves as the chairman of the plant protection division of the Manufacturers' Association of Israel.

Aligning with the UN Sustainable Development Goals (SDGs)



We are committed to taking an active role in advancing the UN Sustainable Development Goals, focusing on the most relevant SDGs in which we can potentially make a significant impact. The 17 SDGs are an urgent call for action by all countries and organizations in a global partnership. The Goals aim to end poverty and

other deprivations together with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our oceans and forests.

Goal ADAMA's alignment with the SDG



No Poverty

Based on World Bank data, growth in the agriculture sector is two to four times more effective in raising incomes among the poorest people compared to other sectors. By creating effective and affordable solutions for farmers to generate greater yields from their crops, farmers can sell more products, and in turn, enhance their livelihood.

Our focus: SDG 1.4

To learn more about how ADAMA is contributing to SDG 1, see [Our Products](#) chapter



Zero Hunger

Crop protection is an important tool in the fight against global hunger. We reach farmers in more than 100 countries across the globe, providing them with solutions that help them improve the quality and quantity of their crop yields by providing protection from weeds, insects, and diseases.

Our focus: SDG 2.3 and SDG 2.4

To learn more about how ADAMA is contributing to SDG 2, see [Our Products](#) chapter

Goal ADAMA's alignment with the SDG



Quality Education

Through our local and regional community engagement programs, we invest in educational programs with a special emphasis on chemistry, agriculture, and sustainability. We have also made a long-term commitment to support and promote education in the communities in which we operate, facilitating programs from kindergarten through to doctoral studies, as well as informal education.

Our focus: SDG 4.4

To learn more about how ADAMA is contributing to the SDG 4, see [Our People and Communities](#) chapter



Clean Water and Sanitation

We are committed to reducing our water consumption through developing and promoting solutions that support efficient and responsible use. As part of this commitment, we are minimizing the release of hazardous materials and effluents, as well as substantially increasing our wastewater treatment and water reclamation capabilities.

Our focus: SDG 6.3

To learn more about how ADAMA is contributing to SDG 6, see [Our Environmental Sustainability](#) chapter

Goal

ADAMA's alignment with the SDG

7 AFFORDABLE AND CLEAN ENERGY

**Affordable and Clean Energy**

By 2024, we plan to reduce our absolute energy from fossil fuel consumption by 10% with the help of energy surveys and projects to improve efficiency. We want to substantially increase the share of renewable energy that powers our facilities: two of our sites ran almost exclusively on renewable resources in the past year, and another site utilizes cogeneration energy and steam plants that have also allowed us to reduce our fossil fuel use and carbon footprint.

Our focus: SDG 7.2

To learn more about how ADAMA is contributing to the SDG 7, see [Our Environmental Sustainability](#) chapter

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

**Industry Innovation and Infrastructure**

We have aggressively invested in health, safety, and environmental improvements in our plants, with a specific emphasis on our facilities in China. We heavily invest in our own R&D and collaborate with innovative technology companies to embed innovation in our offerings. Our aim is to increase the efficiency of our products and optimize yields, while minimizing potential impact on health, safety, and the environment. Our novel offerings focused on sustainable formulations hold a growing share of our product portfolio and we are committed to continuing and investing in new developments.

Our focus: SDG 9.4

To learn more about how ADAMA is contributing to the SDG 9, see [Our Products](#), [Our Environmental Sustainability](#) chapters

Goal

ADAMA's alignment with the SDG

10 REDUCED INEQUALITIES

**Reduced Inequalities**

Reducing inequality is a leading value that guides our activity in all our sites and the countries in which we operate. For us, one of the main pillars for promoting diversity and inclusion focuses on promoting equality. In addition, we conduct many projects in the field as part of our community activities, such as projects in the geographic and social periphery and increasing social leadership and mobility.

Our focus: SDG 10.2

To learn more about how ADAMA is contributing to the SDG 10, see [Our People and Communities](#) chapter

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

**Responsible Consumption and Production**

We are committed to implementing sustainable production processes and creating products that can be consumed responsibly. We consistently upgrade our production facilities so that we can reclaim water, utilize cogenerated energy, reduce, recycle, and responsibly manage waste, and more. For consumers, our crop protection products are formulated so that smaller quantities of Active Ingredients can be used to effectively combat disease and pests, while minimizing the impact on human health, safety, and the environment. We also invest in the development of new formulations that minimize the products' environmental impact.

Our focus: SDG 12.4, SDG 12.5, SDG 12.7 and SDG 12.a

To learn more about how ADAMA is contributing to the SDG 12, see [Our Governance and Ethics](#) chapter, [Our Products](#), [Our Environmental Sustainability](#) chapter

ESG Ratings and Rankings

We see great importance in continuous improvement of our ESG practices. To this end, we take an active part in responding to leading global and local ESG ratings, and we analyze the results to identify stakeholders' expectations as well as opportunities for improvement. We use our detailed gap analysis to prepare a multiyear improvement plan.

ecovadis

In 2022, ECOVADIS ranked ADAMA as "Silver".

ADAMA has continuously improved its ranking since its first ranking in 2018. The 2022 score of 57 (73rd percentile) brings us closer to the goal of 60, allowing ADAMA to join the TFS community.



Since 2006, ADAMA has disclosed data to the Israeli sustainability ranking organization, MAALA. ADAMA was ranked "Platinum" in its 2022 assessment.



CDP ranked ADAMA as D in 2021, typical for first year companies, starting their climate change journey. We formulated a gap closure plan and will participate again, following the execution of major plan elements.



Sustainalytics rated ADAMA 37.8. As part of our ESG journey, we initiated a dialogue with the agency to lay the groundwork for improvement.



ADAMA

Our Products



A GROWING SET OF CHALLENGES

Farmers face unprecedented challenges in meeting the needs of a growing population with diverse and often competing priorities. For large parts of the world, addressing food security is the biggest concern; in other places it's ensuring high quality, healthy food options at affordable prices. Everywhere, the negative impact of climate change has made attaining these goals increasingly difficult. Growers need a diverse toolbox of safe and effective solutions that protect and enhance their crops while maintaining or improving the health of the soil, water, and other natural resources.

However, with resistance growing to many existing Active Ingredients (AIs), and increasing regulatory restrictions, many molecules are being taken off the market. Additionally, there has been a significant slowdown in the discovery of new molecules, further limiting the inputs for creating new solutions to the very real challenges farmers face.

In this "new normal," the Crop Protection industry must find novel pathways to innovate.

Our industry-leading portfolio of Active Ingredients, coupled with our advanced Formulation Technology platforms and our state-of-the-art formulations, testing, and production facilities allow us to rapidly develop new, more effective, and more sustainable products that farmers need.



A Portfolio that Brings Value to Farmers, Our Customers and Stakeholders

ADAMA's crop protection product portfolio includes a range of herbicides, insecticides, fungicides, and biological solutions focused on controlling the most destructive weeds, insects, and diseases at every stage of the growth cycle.

Advanced Formulation Technologies Drive Our Product Innovation Model

In the past, innovation in the Crop Protection industry meant developing new AIs with novel modes of action. Over the past two decades, however, the number of new discoveries has dropped by approximately 65%¹. During this same time, ADAMA built up its portfolio, selectively picking the most effective, safe, and sustainable molecules from across the industry.

Our R&D, formulation, product development, product strategy, regulatory, and IP teams have become, over time, experts in hundreds of AIs. They have spent their careers experimenting to see which AIs deliver the greatest advantage when mixed; developed unprecedented understanding of their regulatory profiles; and acquired unparalleled experience in navigating the challenging IP landscape of each one.

ADAMA understood that at a time of limited new AI discovery, we could turn our wide portfolio into an enormous innovation engine if we focused on optimizing the performance of molecules we already have, through smart, targeted formulation enhancements. In the past years we have invested significant resources to develop proprietary, advanced Formulation Technology platforms that can provide tangible benefits that farmers need in the areas of efficacy, product usability, and sustainability.

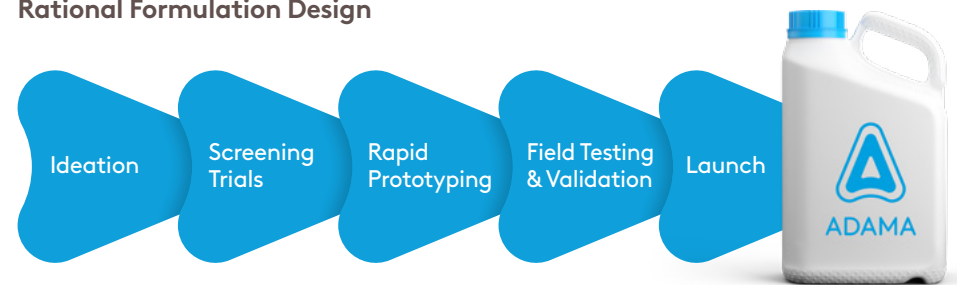
We are bringing a new level of agility and responsiveness to address rapidly changing agronomic practices, ever-shifting regulatory requirements and consumer and market preferences, turning an industry challenge into an asset for our customers.

1. Agbio Investor 2023

Our Product Development Cycle: First, We Listen to Farmers

We begin our innovation cycle by listening to farmers, advisors, and researchers, to capture the real-life challenges they face in producing healthy yields and farming sustainably. Our team of leading agronomists delve deeply into the new farming practices being adopted around the world to meet changing environmental conditions, regulatory restrictions, and consumer demands. Our optimized, iterative process drives our pipeline of leading solutions with an agile development and decision-making process and clear sustainability outcomes.

Rational Formulation Design



We capture inputs from the field that can be translated into product features and benefits – whether the need for lower residues, lower volumes, optimized penetration, limited drift, greater rainfastness, soil mobility, or overcoming AI incompatibility – and transfer them to our labs. Here we undergo a process of rapid prototyping of dozens of formulations with multiple combinations of co-formulants and Active Ingredients. This is followed by testing and trials in our biokinetic labs and greenhouses to identify the highest potential formulation candidates even before sending them to the field. Then, through a series of field trials, we zoom in on the most effective proprietary candidate with a distinct competitive advantage that can outperform the market. We continually check each new formulation technology to determine its applicability to solving other market needs; if we identify this potential, we often will further develop it into a “formulation mastery” technology platform to accelerate the development of other new products.

PORTFOLIO HEALTH: TOWARD A MORE SUSTAINABLE PRODUCT PORTFOLIO

We are committed to significantly increasing our sales of “Sustainability Leading” products, and to achieve this, we need a way to measure how sustainable a product is. In 2022, we started developing a standardized assessment tool which gives us a clear definition of sustainability leading products, enabling us to evaluate our existing and new products through the lens of sustainability. This advanced decision support tool helps us take steps to improve the overall environmental impact of our product portfolio.

Adapted from best practices in the [WBCSD Chemical Industry Methodology](#) for Portfolio Sustainability Assessment (PSA), the tool allows us to examine strategies to minimize our products’ environmental impact, decrease their carbon footprint, and increase their safety and health for both humans and animals.

By consistently measuring our current and planned products according to this assessment tool, we aim to make better decisions by putting the focus on sustainability. This becomes a navigational guide for our innovation and will ultimately allow us to steer ADAMA toward a more sustainable portfolio.



OUR PRODUCT PORTFOLIO

Supporting Farmers with Sustainable Solutions

ADAMA is proud to bring to market a growing number of products that support the world's drive toward sustainable and regenerative agriculture. We seek to be at the forefront in developing sustainability leading products in three key areas, supported by our unique, advanced Formulation Technologies:

ADAMA's Product Sustainability Advantages



Low Dose Products

Decrease the amount of Active Ingredient applied by farmers, leading to safer handling, while achieving the same or better results than market-leading products.



High Load Products

Reduce the volume of product that needs to be produced, packaged, shipped, stored, and eventually disposed of, lowering the carbon footprint and environmental impact.



Biological Products

Naturally derived biosolutions that improve nutrient uptake, stress tolerance, and soil and plant health, while reducing chemical load on produce and the environment.

Formulation Mastery products

Formulation Mastery is about optimizing how each Active Ingredient reaches its target. When a crop protection product is applied, naturally occurring obstacles can reduce the Active Ingredient's efficacy; these can include wind that causes drift, waxy cuticles that block absorption into leaves, and rain that washes products off. For every possible impediment preventing an AI from reaching its target, there is an innovative solution waiting to be invented, and this is ADAMA's focus: advanced formulations to overcome these challenges and maximize the efficiency of Active Ingredients.

We have developed multiple proprietary Formulation Technology platforms, each of which optimizes AIs in a unique way, providing value-added sustainability benefits to growers and channel partners while improving crop yields. The development of these technology platforms has created a foundation that enables the faster release of more sustainable products in the future. Today's platforms support our Low Dose and High Load products, and we are working on other formulation mastery platforms to provide solutions to issues such as soil mobility, drift control, UV stability, persistence, leaf coverage, and AI chemical incompatibility.

Low Dose Products Minimize Environmental Load

Low Dose crop protection products can optimize the performance of an Active Ingredient. They minimize the load on the environment by reducing the quantity of Active Ingredient and optimizing delivery mechanisms, so a larger amount of the AI reaches its target. This results in higher crop yields with potentially smaller amounts of crop protection products.

ADAMA has already developed and launched several proprietary Formulation Technologies that can support its Low Dose product development efforts, and we are continuously working on new technologies to bring even more effective, sustainable solutions for farmers' needs.



Increased Efficacy Formulation for Mastercop ACT®

The formulation technology used in Mastercop ACT® enhances the bioavailability of copper ions to achieve higher field efficacy per gram of copper and low phytotoxicity risk compared to liquid and solid formulations. Designed for use in both organic and conventional farming, Mastercop ACT® is a major breakthrough, enabling over 50% reduction in copper usage per hectare than conventional copper fungicide products, thereby reducing the environmental effects, while providing reliable disease control. For example, the use rate in grapes is 211 grams per hectare, leading to the same or better efficacy as 700 grams per hectare of conventional copper formulations.

The Mastercop ACT® formulation is an easy-to-use suspension concentrate that readily suspends in the spray tank and can be diluted with water in any proportion to achieve homogeneous dispersion, making it easy for farmers to use. Mastercop ACT® is intended to control a range of plant fungal and bacterial diseases on a wide range of crops including grapes, pome fruits, stone fruits, fruiting vegetables, and tuber crops. It provides a powerful advantage for sustainable agriculture and is currently available in Serbia, and will be launched in Germany, China, Mexico, and numerous additional countries in the years to come.



Asorbital® Formulation Technology

ADAMA's Asorbital® Formulation Technology platform is a unique formulation that improves the leaf penetration and systemic movement of the Active Ingredient in the plant, while minimizing environmental impact. Extensive field testing has demonstrated that Asorbital® provides excellent control and yield benefits. With unpredictable weather and narrow use windows to apply certain products, this technology provides greater efficacy and sustainability and can be used to reduce application rates.

Soratel® Our UK, Canada, and Australia businesses have already launched the first product powered by Asorbital® Technology – Soratel®. Dozens of countries will be launching additional products with Asorbital® Technology in 2023 and 2024.

Maganic® is a new fungicide to be released in Lithuania in 2023. It is powered by Asorbital® Formulation Technology for improved uptake and excellent systemic activity that delivers robust control of key wheat diseases, resulting in higher quality grain.



Rainfast Formulation Technology

Rainfastness can be a key factor in maintaining the efficacy of an Active Ingredient after rainfall or irrigation. ADAMA developed a Formulation Technology that reduces the loss of Active Ingredients from plant surfaces due to rainfall or irrigation events, enabling us to create a range of rainfast products. This provides farmers with a more effective option to protect their crops and reduces environmental impact.

The innovative rainfast Formulation Technology is in the process of receiving several patents, and there are already several products in our pipeline using this technology, which we plan to release in the coming years.

High Load Products Benefit Farmers and the Environment

High Load crop protection products leverage novel Formulation Technologies to enable us to pack more Active Ingredient per volume of product sold. This in turn enables us to reduce the volume of product that needs to be formulated, packaged, shipped, stored, and applied, and reduces the amount of disposable packaging, all of which significantly lowers the product's environmental impact.

High Load products also often deposit a smaller amount of carbon in the field – due to their use of a smaller amount of carbon-laden raw materials – which can directly reduce ultimate CO₂ emissions once these carbon sources are degraded.

These unique and super-concentrated formulations deliver savings from factory to field with their much smaller packages and decreased transport needs. They are also easier for farmers to use, as they have reduced handling, storage, rinsing, and waste disposal requirements

SESGAMA™ Formulation Technology

For our SESGAMA™ Formulation Technology, we have developed our own unique polymeric surfactant that enables us to load a much higher amount of Active Ingredient per unit volume while maintaining a stable, flowable formulation as compared to conventional formulations. The technology enables stable high-loaded suspensions that help create products that are easy to use, have a smaller environmental footprint, and reduce packaging and transportation costs. Patents have been granted in several geographies for the SESGAMA™ platform.

FullScript™ is a liquid herbicide formulation that was launched in the US in the first quarter of 2023. The use of SESGAMA™ in this product allows a stable mixture of two Active Ingredients that otherwise would probably require two separate containers, one for each Active Ingredient. It provides growers with confidence and predictability in weed control, as well as the freedom to flexibly rotate crops to control resistant weed pressure in fields.



Case Study: Pioneering High Load Formulations

The ADAMA Australia team has proven the benefits of high load formulations over the past decade. More than 25 high loaded formulations have been launched in Australia, with customers now readily accepting and supportive of this strategy. Based on their calculations, these concentrated formulations have had a major impact on reducing plastic and drum use, transportation, storage, and disposal.



25

Concentrated formulations



10.8m

Liters of crop protection volume



1m

Fewer drums needed



541

Fewer trucks on the road

Australia's High Load products have led to significant savings in plastic, cardboard, pallets, and CO₂ emissions.

Biological Products Improve Soil and Plant Health, and Reduce Chemical Load

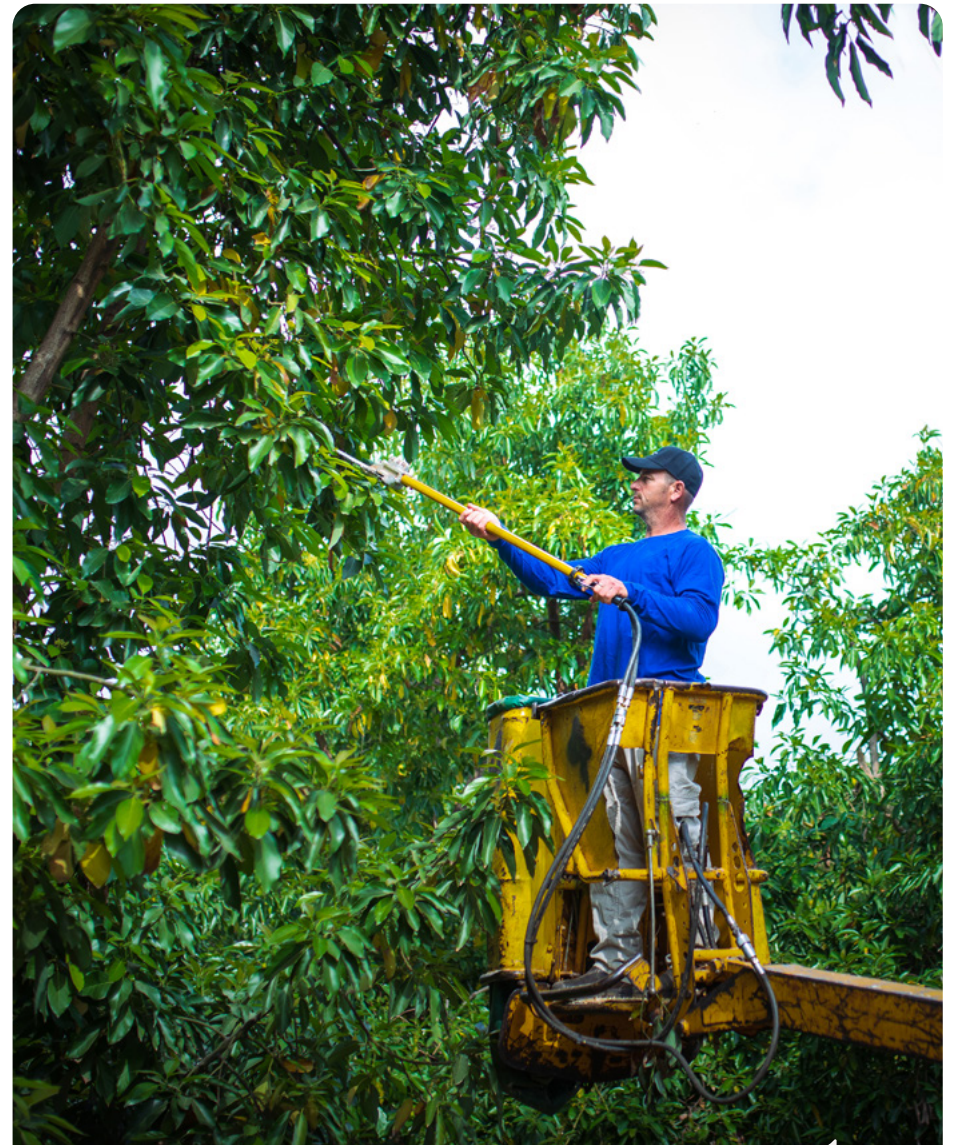
Our early efforts in Biologicals were mainly locally-driven initiatives. However, in 2021, we established a Bio Sustainable Solutions development team, and in 2022, we further grew the dedicated local and global personnel and committed to a global Biologicals strategy.

Our aim is to become a significant player in this space. We are rapidly adapting our robust global product development engine to Biologicals, with the objective of significantly increasing our offering by 2025.

We pursue an open innovation model, both developing our own Biological solutions, and entering into licensing and partnership agreements with companies and academic institutions that aim to bring to market Biological products that solve a need for our customers.

With more than 50 Biological products in our current portfolio, our Biological solutions are focused in two areas: biological control products - and crop improvement products such as bio-fertilizers and bio-stimulants.

In 2022 we acquired AgriNova New Zealand Ltd., and we are integrating its Biological plant nutrition and plant growth regulators into our product portfolio. In addition, we completed acquiring the remaining stake in ADAMA Chile, which produces the leading bio-stimulant ExpertGrow®/ ExelGrow® and other Biological solutions.



Selected Biological Products Launched or Updated in 2022

Bralic®

Bralic®, based on garlic oil extract, has multiple modes of action to protect against sucking insects and mites. It masks the effect of insect pheromones, disrupting their life cycle. It also diverts their feeding habits and attacks their central nervous system. It controls a broad spectrum of pests while being safe for beneficials. First launched in Mexico, Bralic® is now expanding globally to additional markets in a new formulation launched in 2022.



ExelGrow® / ExpertGrow®

Approved for use in organic agriculture, ExelGrow®/ ExpertGrow® is a bio-stimulant based on seaweed extract, produced through the unique formulation technology of double fermentation, which ensures high stability during storage. The product enhances the plants' resistance to stress, stimulates growth processes, and offers better fertilization and fruiting and utilization of nutrients, all of which lead to better yield. After being mainly used in Latin America, ExelGrow®/ExpertGrow® initiated its global expansion in 2022.



N-Boost™

N-Boost™ is a foliar supplement, whose formulation helps increase nitrogen absorption and utilization and reduces plant stress in adverse weather conditions, which in turn improves growth and performance. It helps in the translocation of nutrients, and enhances the plants' photosynthesis process, leading to improved yield. Already sold in several Central American countries and China, N-Boost™ will be launched in additional countries in the coming years.



Protege®

Protege® is a powerful triple bacteria combination with different modes of action against nematodes, controlling these parasites and protecting yield with a non-toxic, non-polluting, and non-residual solution that promotes soil health. It can be used on its own or together with our Nimitz® solution.



Tormos™

In 2022, ADAMA entered into an agreement with Groundwork Bioag to offer this sustainable, cost-effective alternative to synthetic fertilizers to help Indian farmers increase yield. Based on naturally robust strains of mycorrhizal fungi that are symbiotic with 90% of plant species, the solution helps farmers enhance their soil health and increases the plants' resilience to climate challenges.



Sorghum: Contributing to Regenerative Agriculture

Sorghum is a resource-conserving crop which requires considerably less water than wheat, corn, or soybeans; thrives with high heat, low humidity, and limited rainfall; and is associated with lower production costs. Yet, despite these sustainability and cost benefits, market influences have limited its adoption, with US farmers typically sticking to a corn/soy rotation. By incorporating sorghum into their crop rotations, farmers not only save costs and gain a hardy, nutritious, gluten-free grain, but contribute to soil regeneration and promote climate resilience.

In an effort to promote sorghum planting, in 2022 ADAMA launched the Double Team™ Sorghum Cropping Solution, a joint effort between ADAMA and S&W Seed Company, to provide US growers with post-emergent grass weed control in their sorghum crop. The system combines S&W's non-GMO drought-tolerant DT™ Trait sorghum hybrid, and FirstAct™ herbicide from ADAMA, to provide growers a unique, easy-to-use system to protect sorghum crops from yield-robbing grass weeds.

We are proud to play a role in the return of efficient sorghum cultivation, enabling growers to cultivate a crop that is appropriate for changing environmental conditions and can help maximize their profits.

Looking Ahead

- Develop more Formulation Mastery platforms, and launch additional products with sustainability benefits
- Significantly increase Biological offering by 2025



STEWARDSHIP

At ADAMA, stewardship is a state of mind, and we're proud of the progress we're continuing to make as an integral part of our business strategy.

In 2022, we appointed the first full-time Global Stewardship Officer. This new role leads stewardship initiatives across the organization, coordinating with multi-disciplinary teams in the countries where ADAMA operates.

The Centrality of Stewardship for ADAMA

Stewardship at ADAMA encompasses every aspect of the organization, from product development to application methods to packaging choices to the wording on the labels. It means running the entire business in a responsible way, to ensure the increased safety and health of human beings and the environment.

Through our conscious approach, we promote the safe use of our products and help prevent accidents. In addition, we educate, run studies, and share knowledge on sustainable ADAMA products.



In India, as part of an industry task force, we led a broad study of residues in different areas of the country to determine safe application rates and methods for a commonly used insecticide for rice. Based on the results of this study, we are establishing training sessions for farmers to ensure that everyone understands and follows safe use guidelines.

Stewardship Guidelines

We are developing stewardship guidelines for key ADAMA products, in addition to those that already exist, with a view to publishing the new guidelines by the end of 2023. These documents for farmers are short and easy-to-read, outlining the practical use of each product and ways to avoid any unwanted effects that could arise from incorrect application or storage.



Together with RiceTec, a producer of hybrid and varietal rice seeds, we developed a rice stewardship program in the USA that helps farmers achieve high yields while protecting their land. The program includes stewardship guidelines for optimal application timing and rates of ADAMA crop protection products to ensure clean field foundations and effective pest control, as well as ongoing training for rice farmers.

We are also extending our stewardship program in partnership with S&W Seed Company, together playing an important role in the renewed cultivation of sorghum, a highly sustainable and nutritious crop.



Highlighting the importance of stewardship, during 2022 we produced a video on the overarching theme [“Ready to Thrive”](#), covering multiple crops.

AGRICULTURAL TECHNOLOGY

Collaborating with Tech Companies to Deliver the Solutions our Customers Need

Our promise of Listen > Learn > Deliver touches everything we do, and our approach to agriculture technology (AgTech) is no different. Our strategy is customer-centric, focused solely on what is best for farmers. We are also tech-agnostic, collaborating with numerous technology and Farm Management Information Systems companies to bring the right solution or service that enables farmers to increase efficiency, reduce costs, meet regulatory requirements, and boost yields, while minimizing potential impact on health, safety, and the environment.

In our experience, there's no "one size fits all" solution. We bring our agronomic and chemical expertise to the table and focus on partnering with others to put together the right solution for each customer need, from all the many technologies, Active Ingredients, and data platforms out there. Our tech neutrality gives us freedom to explore a vast range of innovative solutions, and we already have more than 15 AgTech solutions in various stages of deployment in 28 countries.



Smart Ag Nation Gives Farmers the Prescriptions They Need

We are collaborating with growers in Brazil to run a pilot based on our Promise to Listen > Learn > Deliver. Together with Hispatec, we asked growers what they needed in order to be more efficient. The answer was: they are overwhelmed by the many solutions and platforms available to them, and they simply want to know what the problem is, which products to use when, where, and in what quantities.

The result was our creation of **Smart Ag Nation (SAN)**, a prescription engine that draws on multiple data sources to generate unique digital prescriptions and recommendations for each of the use cases the growers requested. Farmers can use these recommendations to plan and execute product usage, either by integrating it with their own farm management system or by using ADAMA Darwin, ADAMA Brazil's local Cloud Platform and mobile app powered by ProAgrica.

The Brazilian pilot went live in autumn 2022 for more than 20 farmers, agronomists, and advisors, with two use cases out of the 30 that had been identified:

1. **Know the actual phenological stage of their crop** for optimum application of crop protection products and yield, eliminating guesswork.
2. **Be provided with ideal planting scenarios**, considering harvest date, drought risk, and estimated yield.

Following a recent feedback workshop with the farmers testing this service, priorities were determined for the development of new use cases in 2023.

Eagle Eye Enables Hybrid Customer Engagement

ADAMA Eagle Eye is a digital platform that uses AI to distill analytics from drone imagery and deliver information about fields and crops, saving the labor and time of physical field visits. Using ADAMA Eagle Eye, we can monitor the progress of field trials and produce personalized reports for farmers, enabling crops to be treated in a more efficient and specific way. Eagle Eye is part of a future hybrid solution for field tests and management, alongside face-to-face meetings.

We expanded pilot usage to six countries across Europe in 2022, after its successful deployment in the US in 2021. The solution provides valuable insights and has proven highly effective in supporting crop and product management and customer engagement. Commercial implementation launched in Romania to help farmers with their crop decisions for the season.

In the near future, Variable Rate Application (VRA) maps generated by the Eagle Eye platform will be offered as a commercial tool for farmers. The platform offers several unique features and algorithms, allowing ADAMA to offer customized service to its customers.



BreviSmart Guides Apple Farmers to Grow Better Apples

Brevis, our chemical fruit thinner for apple and pear orchards, is one of the most efficient products on the market, but apple farmers still need expert guidance about how much to use to avoid under- or over-thinning their trees.

During 2022, our agronomists worked together with a team of 10 European fruit thinning experts and scientists to develop the BreviSmart app, which advises farmers about the ideal time and quantity of Brevis to apply, to gain the largest, healthiest apples. BreviSmart's algorithm draws on rich weather, location, variety, and other data to produce customized advice for each orchard, helping farmers mitigate the dual risks of over-stressing the orchard or under-thinning their trees.

BreviSmart is in use in 25 countries around the world, bringing science to the art of fruit thinning.

Looking Ahead

- Drone spraying in India, to reduce operator exposure to chemicals and resolve labor shortage
- Improve disease models and precision application services to help collaborators comply with European New Green Deal
- Expand Smart Ag Nation to additional use cases to support Brazilian farmers and introduce new countries to this platform



Our Environmental Sustainability



ENVIRONMENTAL IMPACT

As a global agrochemical company, we strive to minimize our environmental impact while supporting farmers' efforts to increase global food production in a more sustainable way. We take a comprehensive approach to monitoring our environmental impact and mitigating risks at every stage of our product lifecycle, from raw material supplies to production, transportation, application, and all the way to end-of-life management. This approach enables us to continuously improve our performance while focusing our efforts on mitigating our environmental footprint.

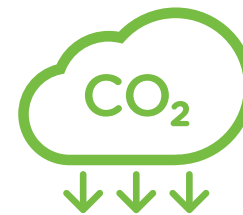
Our environmental sustainability policy was crafted through engagement with farmers, employees, surrounding communities, environmental organizations, regulators, and other stakeholders. Through listening closely to them, we learned their expectations. We then took steps to implement cutting-edge technologies and innovative approaches that enable us to effectively manage and reduce our environmental impact.

We actively engage the communities living near our operation sites, to jointly create projects that reduce potential nuisances. In our production plants, we host regular community dialogues to listen to and address public concerns. For example, we send a biannual operational update to community leaders. We also run a verified monitoring station that transmits real-time information about chemical emissions, so our stakeholders can be certain that these are well below admissible levels.

At ADAMA, we manage Health, Safety and the Environment (HSE) methodically and systematically, to enable significant achievements over time. This is part of our commitment for sustainability and embedded in our core business. Our published reports and ESG ratings reflect our progress, and we are proud of it.

Although we produce and handle hazardous materials, we are committed to outperforming regulatory requirements and protecting our environment by limiting our energy, water, effluents, and waste footprints. We have launched a variety of projects to steadily improve our environmental performance in absolute terms over the coming years.

During 2022, we continued to measure and monitor our five-year operational goals, to ensure their fulfillment. Our 2024 (2019 baseline) leading targets to mitigate our environmental impact are*:



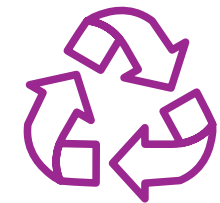
Energy from Fossil Fuel

10% decrease in energy consumption originated from fossil fuels



Water

10% decrease in water withdrawal



Hazardous Waste

15% decrease of hazardous waste disposal to landfills or incineration, by shifting to recycle/reuse disposal

* The targets do not include data from factories located in China



Our Environmental Management Infrastructure

To put our commitment into practice, we have established and continuously maintain an effective internal environmental management system. This system includes 12 standards and guidelines that facilitate emissions control and waste management for the three essential mediums: air, water, and soil. To ensure compliance with local regulations and our own standards, we maintain an ongoing assurance plan. In addition, our facilities are managed according to stringent European directives or analogous local regulations, and most adhere to the International Standard ISO 14001.



57% of our sites are certified to ISO 14001 or to an equivalent standard

Our HSE Policy adopts a sustainable approach to protecting both our people's health and safety, and the environment, by promoting renewable energy, recycling, and emission reduction. We strongly maintain our commitment to our nearby communities and foster a corporate culture of individual responsibility at all our sites.

We recently updated our [HSE and Sustainability Policy](#) to include aspects of process safety which are associated with environmental incidents, such as spills and release. Moreover, we formulated two new sustainability standards covering greenhouse gas emissions and dwindling water resources.

Investing in a Greener Future

In 2022, we continued our investment in preventing and mitigating environmental risks while reducing the potential environmental effects of our activities. Specifically, we constructed a new chloralkali production facility that uses membrane-based technology rather than mercury. We built a new 24,000 cubic meter wastewater membrane biological reactor and 1,000 cubic meter balancing pool to enhance treatment efficiency and redundancy. We also installed a new thermal oxidizer and two scrubbers to upgrade our air emission control measures.

	2020	2021	2022	Total
Investment in facilities / Expenditures on environmental protection (million USD)	19	60	59	302
Current costs / Investments in environmental protection (million USD)	51	54	58	

Key environmental projects in 2022:

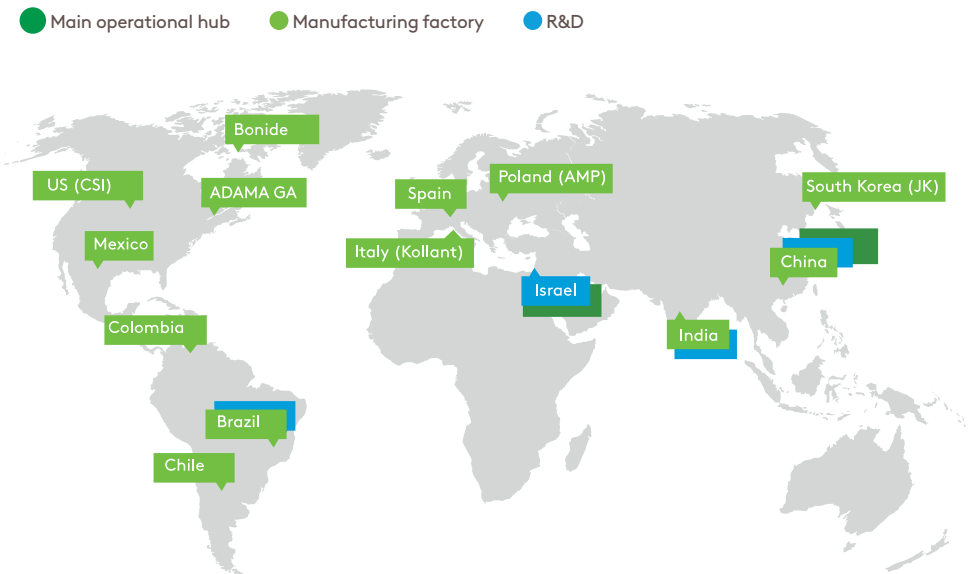
- Wastewater treatment plant upgrade (Sanonda and Maidao)
- Thermal air emission systems (Maidao and Huifeng)
- Electrolysis plant (MCW NH)
- Soil and groundwater remediation (Agan and MCW BS)



302M USD investment and expenditure
in environmental upgrades during the past 3 years

Sustainable Operations

We operate eight major synthesis sites, 12 formulation and packing sites, one biological site, and one food additive production site



To meet our emissions goals and continue our journey to become a more sustainable company, we are compelled to operate using the best available technologies. The following technologies were adopted by ADAMA to fulfil our vision for the environment and sustainability:

Pillars	Technological and Organizational Solutions
Water and wastewater	<ul style="list-style-type: none"> • Biological wastewater treatment plants and desalination plant • Treatment and reuse of effluents • Closed-loop cooling towers • CIP water reuse
Energy use	<ul style="list-style-type: none"> • Use of steam and electricity generated by cogeneration • Natural gas power plant • Heat conservation • Renewable energy sources
Air pollutants and odor nuisance	<ul style="list-style-type: none"> • Thermal oxidizer units • Denoxers based on ammonia injection • Scrubbers • Activated carbon systems • Sieve and HEPA filters
Hazardous waste	<ul style="list-style-type: none"> • Condensation system to reuse solvents • Dewatering system for reducing volume of sludge • Recycling of used plastic packages
Noise nuisance	<ul style="list-style-type: none"> • Silencers on stacks and equipment • Physical barriers around workshops • Acoustic walls
Accident prevention	<ul style="list-style-type: none"> • Only certified drivers handle hazardous materials • Warehouse employees are trained in safe loading and storage of hazardous materials • Warehouses managed in compliance with storage safety constraints and labeling requirements, according to UN code and SDS • Facility floor covered with leach-proof concrete and drainage trenches • Ground water, marine environment, and air pollutant monitoring at the plant surroundings



Learning and Improving

Since 2020, we have produced internal HSE and sustainability newsletters which provide global information on new regulations, major HSE incidents, and the sustainability activities of ADAMA and other agrochemical companies. The goal is to expose our HSE teams to upcoming regulations, implement preventive actions based on what can be learned from external HSE incidents, and learn about sustainability activities within our industry.

We manage all environmental impact environmental incidents with the highest care, and we invest in training and a culture of safety so that, even though we cannot guarantee a zero-incident rate, we can learn from mistakes to prevent future occurrences.

In 2022, we experienced two major environmental incidents, which were immediately contained and treated.



Case Study: Conducting an open dialogue with Environmental NGOs

We believe in an open and honest dialogue with all our stakeholders, including environmental entrepreneurs and NGOs. As part of this dialogue, we conducted four meetings with the leading environmental NGOs in Israel during 2022. These were held as part of a dedicated initiative led by the Porter School of Environment and Earth Sciences at Tel Aviv University.

The meetings dealt with a carbon footprint reduction plan, water resources and air emission management, and a future portfolio shift towards a low toxicity profile. At each meeting, information and data was shared about ADAMA's production activities in Israel, and the major environmental concerns of the Israeli community.



REDUCING OUR CARBON FOOTPRINT: ENERGY, GHG, AND AIR QUALITY

We are committed to reducing our GHG emissions and improving the air quality surrounding our sites. In 2022, we set a target of reducing our Scope 1 and 2 carbon footprint by 5% annually until 2030. It will be achieved through developing and promoting solutions that support energy efficiency, renewable energy use, and portfolio adjustment.

Despite the commissioning of several additional waste treatment units in China in 2022, energy consumption and GHG emission intensities were at a similar level vs. 2021. This means we have succeeded in maintaining the advantage gained during the last decade.

Carbon Footprint Measurement

We collect energy data from our production sites and calculate our carbon footprint digitally. During 2022, we revised our Scope 2 carbon footprint emission factors to include refrigerants and operational LDAR data.

Similarly, we adjusted Scope 2 carbon footprint emission factors - electricity and steam - for each supplier, according to supplier-specific data or the energy mix of the regional/state electricity supplier.



0% carbon footprint intensity change vs. 2021, despite 19% increase in absolute energy consumption

Scope 1 and 2 CO₂e emissions and intensity, (tonne CO₂e; tonne CO₂e/million USD revenues) in all our sites

	2018	2019*	2020	2021**	2022
Scope 1 and 2 GHG Emissions (tonne CO ₂ e)	242,249	1,429,852	1,273,618 ¹	1,210,860 ²	1,422,292 ³
GHG Intensity (tonne CO ₂ e/ million USD revenues)	68	358	309 ⁴	252	254 ⁵

Energy consumption and intensity, (TJ; TJ/million USD revenues)

	2018	2019	2020	2021	2022
Total Energy Consumption (TJ)	3,344	12,480	10,966	10,516 ⁵	12,503 ⁶
Energy Intensity (TJ/ million USD revenues)	0.9	3.1	2.7 ⁷	2.2	2.2

Chlorine and AIs Account for 95% of Scope 1 and 2 emissions

* Starting From 2019 includes ADAMA Chinese entities

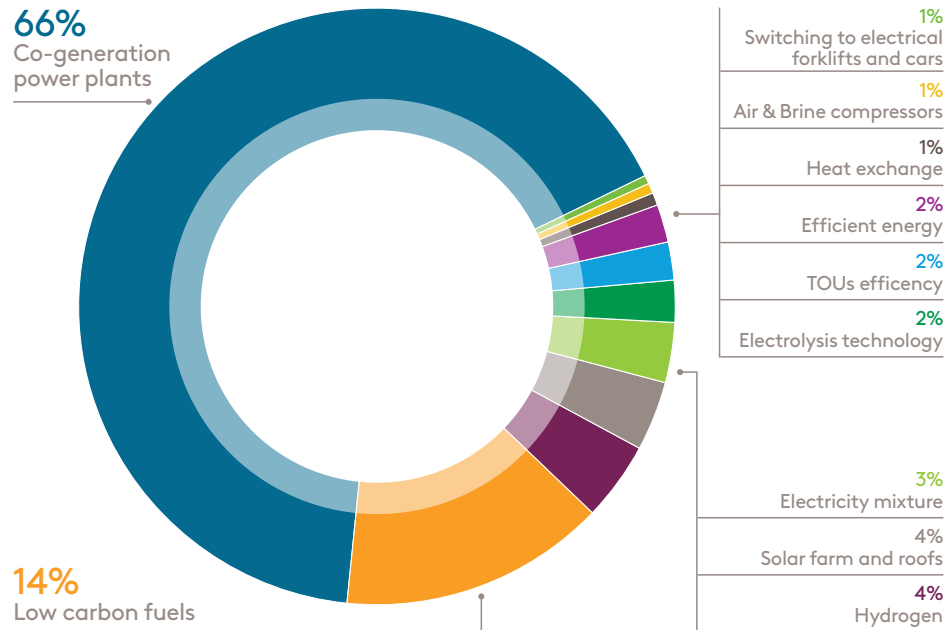
** CO₂e emission factors were embedded during 2021

- 2020 data was refined to site specific or state specific
- Includes Huifeng (2nd semester), Lycored and Chilean production sites
- Due to regained production at Sanonda and Huifeng. Not including our subsidiaries Lycored and ExperGrow
- 2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues.
- Includes Huifeng (2nd semester), Lycored and Chilean production sites
- Due to regained production at Sanonda and Huifeng. Not including our subsidiaries Lycored and ExperGrow
- 2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues

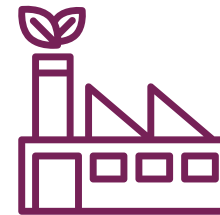
Following the 2015 Paris agreement, we committed to mitigating our Scope 1 and 2 GHG emissions. We prepared a road map for achieving our goals which focuses on the following main initiatives: switching to a co-generation power plant; shifting to low emission fuels; utilizing hydrogen; adopting renewable energies; and upgrading large energy consumers (see figure below). Our original goal was to reduce GHG emissions by more than 50%* overall by 2030 (baseline year 2015). By 2022, 45% had already been achieved. Yet, to meet our final goal while integrating our Chinese entities, we set ourselves the target to continuously reduce our carbon footprint by 5% annually.

*Not including Chinese entities

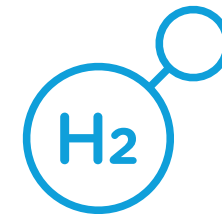
GHG reduction activities by rate



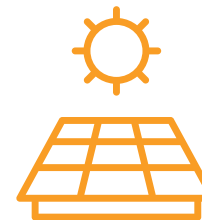
Meeting our Scope 1 and 2 GHG reduction targets:



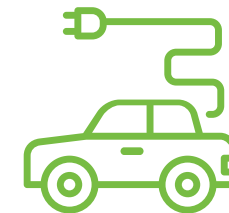
Adopted new technology to generate electricity and steam from natural gas, resulting in 35% reduction in corporate carbon footprint



Utilized hydrogen to fire air treatment system, resulting in reduced use of fossil fuel



Generating electricity and steam through renewable resources (solar, water and biomass) in multiple locations



Shifting to electrical operational vehicles, saving 185K liters of diesel annually



Case Study: Process Improvement Initiative in Galil Production

ADAMA proactively operates to reduce environmental impact within its production processes. In 2022, a joint team from R&D and the Galil production unit succeeded in improving efficiency by 25% while reducing GHG emissions by 11.4 tonnes annually. We are expanding this successful approach to other production processes.



Looking Ahead

Electrification of company vehicles. We are currently transitioning 200 company vehicles to electric vehicles, with a potential saving of 400,000 liters of gasoline per year. The shift began in 2022, and we intend to complete it by 2025.

In the coming years, we will significantly increase hydrogen production capacity at Makhteshim. As hydrogen is a zero GHG fuel with triple the energy of natural gas, we are working to expand the use of hydrogen to replace natural gas as fuel in our thermal oxidizers.



REDUCING ENERGY USE

The transition to cleaner energy consumption is part of our long-term goal to reduce GHG emissions and our impact on the environment. Our production sites in Spain, Colombia, Brazil, and Israel utilize renewable resource-based electricity.

- At our Spain site, we utilize 100% renewable electricity, based on solar panels and wind turbines.
- In Brazil and Colombia, we use electricity that is mainly generated by a hydroelectric power station, combined with biomass combustion resources.
- Solar roofs were installed at ADAMA production sites. The largest one, producing 300KWH, was installed in 2022, at the Agan logistics center.
- In 2021, our Dahej site (India) installed 25KWH solar roofs on its warehouse.
- The Bonide site (USA) has had solar roofs for several years.

We will also reduce energy use by lowering our electricity needs. We are replacing inefficient electrical units (e.g. motors, compressors, and lighting) with higher-efficiency units. We have a designated budget to support such environmental initiatives.

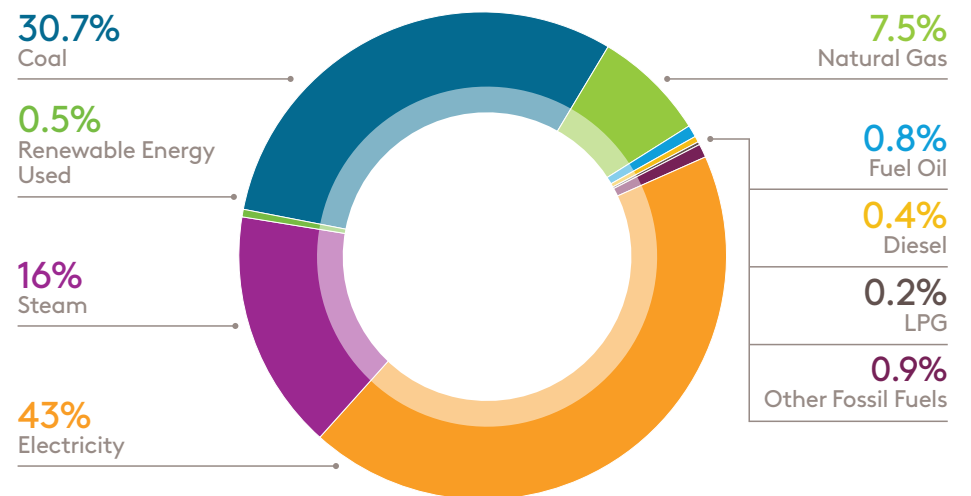
Yet renewable energy adoption and energy conservation plans alone are not sufficient to meet the GHG emission reduction required to offset the global warming effect. Therefore, we will accelerate use of carbon-free fuels such as hydrogen, and carbon-neutral fuels such as biomass (wood).

Use of energy sources (%)

	2018	2019	2020	2021	2022
Electricity	41	40	40	37	40
Steam	26	30	28	26	29
Internal production (fossil fuels)	33	30	32	37	31

* ADAMA Solutions data. The performance of our three Chinese sites is reported separately.

Use of energy sources 2022 (%)



Working to Reduce Environmental Impact Throughout the Value Chain

During 2021 and 2022 we embarked on our plan to measure carbon emissions from the supply chain (Scope 3).

We learned that Scope 3 accounts for close to 70% of our GHG emissions. We investigated raw materials, indirect procurement, services, transportation, and product end-of-life emissions, to find ways to improve our environmental impact.

As direct procurement accounts for most of our Scope 3 GHG emissions, a plan to monitor and engage suppliers about this topic was launched at the beginning of 2023.

Direct Procurement	Indirect Procurement	Transportation of RM and Products	Business Travel	Hazardous Waste Management
<ul style="list-style-type: none"> • RM • Packing material 	<ul style="list-style-type: none"> • IT • Office • Services 	<ul style="list-style-type: none"> • Sea • Air • Land 	<ul style="list-style-type: none"> • Air 	<ul style="list-style-type: none"> • Solid waste • Liquid waste
3,000,000*	31,000*	34,000	4,600	40,000
tonnes CO ₂ e	tonnes CO ₂ e	tonnes CO ₂ e	tonnes CO ₂ e	tonnes CO ₂ e
3,110,000 tonnes CO₂e				

*2019/20 Latest data

For example, we found that 2,096 tonnes of air cargo emit a similar quantity of CO₂e as 225,000 tonnes of sea cargo. This demonstrates the importance of engaging with overseas hauling companies and minimizing the use of air cargo.

Category	Weight (tonne)	Carbon Footprint (tonne CO ₂ e)
Sea	225,000	13,076
Air	2,096	14,632
Land	500,000	6,200



Looking Ahead

2022-2023 Energy Conservation Actions

- Begin producing chlorine gas using modern, highly energy-efficient membrane technology in 2023, potentially saving up to 45% energy usage per tonne of product
- Continue to expand the process of electrifying forklifts and private cars at the company's production and marketing sites
- Ongoing upgrade of energy-inefficient equipment, such as medium to large motors
- Shifting to LED lighting technology

Air Quality

We invest extensive resources into mitigating air emissions at our production plants, and meeting and exceeding air quality standards. We acknowledge the importance of disclosing particulate matter (PM) and VOC emissions due to their impact on public health. During 2022, we commissioned a thermal air emission system at our Chinese operations sites Huifeng and Maidao.

The elevated NOx and SOx emissions are attributed to the increased use of fossil fuel within the air waste treatment units that was necessitated by the stricter environmental regulations in China.

Air Quality (tonne)

	2018	2019	2020	2021	2022
Particulate matter	not measured	not measured	14	28 ¹	29 ²
NOx emissions	106	330	131 ³	159	176
SOx emissions	32	178	25 ⁴	41	60
VOC emissions	72	82	89	81	99

Looking Ahead

During 2023, ADAMA Makhteshim and ADAMA Brazil will install two new regenerative thermal oxidizers (RTOs) to better control organic air pollutants.

1. Includes Huifeng (2nd half), Lycored and Chilen production site
2. Not including our subsidiaries Lycored and ExperGrow
3. The 2020 decrease is due to the shut-down of one coal-based power plant in China, and due to new reduction equipment installed in a second plant.
4. The 2020 decrease is due to the shut-down of one coal-based power plant in China, and due to new reduction equipment installed in a second plant.



REDUCING WATER USE, EFFLUENTS, AND WASTE

Reducing Water Use

Water is an essential resource. We have committed to reducing our water consumption by 10% by 2024 (2019 baseline), through developing and promoting solutions that support efficient and responsible water use. Reuse of wastewater, cooling water, and wash-water are the major practices we implement.



~20% decrease in water consumption and wastewater discharge vs. 2021

Water Reclamation

Water reclamation projects allow us to reuse wastewater, cooling, and wash-water, reducing the environmental impact of discharged water and lowering the consumption of fresh water.

- At the Makhteshim site, we reuse wastewater following advanced treatment. We operate a reverse osmosis desalination facility to treat our wastewater following a biological wastewater treatment plant (B-WWTP). The reclaimed water is utilized at the major production facility onsite.
- At the Agan, Londrina, Poncitlan, and Madrid sites, we reuse wash-water.
- At the Poland site, we recycle cooling water back into the production process.

Our main initiatives for 2023-2025 include:

50% reduction in water use in our formulation plant in Spain



Operating 7 state-of-the-art wastewater treatment plants, treating 3 million m³ of effluents annually, prior to discharging back to the environment



Reuse of treated effluents. Saving 200,000 m³ of fresh water annually



Water consumption and intensity (m³; m³/million USD revenues)

	2018	2019	2020	2021	2022
Total Water Consumption (m ³)	3,503,711	10,289,074	11,624,389 ¹	13,565,073 ²	11,066,527 ³
Water Intensity (m ³ /million USD revenues)	989	2,574	2,816 ⁴	2,818	1,976 ⁵
Total Wastewater Discharged (m ³)	1,837,594	6,434,057	9,398,207 ⁶	9,511,529	7,808,500
Total Wastewater Reclaimed (m ³) ⁷	114,090	282,155	220,690	160,531	71,545 ⁸

Reducing Effluent Loads

We aim to keep our surrounding marine and freshwater environments healthy and clean and strive to curtail any discharges from our facilities. Our effluent treatment system is a multi-stage process comprising physical, chemical, and biological technologies. Control measures include online monitoring, composite sampling, and impact assessments. Twice a year, the Israeli Oceanographic and Limnological Research Institute quantifies the impact of the effluents discharged into the Mediterranean Sea at the Agan site. The findings are submitted directly to the Israeli Ministry of Environmental Protection. As of today, no evidence of any impact of the operations of the Agan site, on marine life or the environment has been found.

1. Increase in 2020 is mostly derived from a change in measurement methodologies, as new digital meters were installed in some ADAMA China facilities.
2. Includes Huifeng (2nd semester), Lycored and Chilean production site
3. Not including our subsidiaries Lycored and ExperGrow
4. 2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues.
5. Our 2022 Revenue - 5600 MS
6. Increase in 2020 is mostly derived of a change in measurement methodologies, as new digital meters were installed in some ADAMA China facilities.
7. Data only represents Maktshim site
8. RO systems shutdown due to upgrade

Effluents and Waste

	2018	2019	2020	2021	2022
TOC in Effluents (tonne)	212	284	369	682	258

ADAMA Solutions data only. Performance of our three Chinese sites is reported separately.



Case Study: Herbicides at Agan site

We invest continuous efforts in reducing the residuals of herbicides discharged into the Mediterranean Sea from the Agan site. To that end, we:

- Ensure optimal conditions at our B-WWTP
 - Convert liquid waste to solid
 - Maintain a high level of housekeeping to eliminate spills
- Despite our increased levels of production, the total amount of discharged herbicides decreased gradually from 1.2 tonne in 2018 to 0.77 tonne in 2022 .



Reuse and Recycling of Wastes

Our production processes generate hazardous and non-hazardous wastes that are treated in full compliance with local environmental protection laws. Waste handling is also an important focus for reducing our environmental impact, and to that end we promote diverse initiatives that implement circular economy methodology. We promote recycling, upcycling, and reuse projects to prolong the lifecycle of the materials we use.



9% reduction in absolute hazardous waste generation



Case Studies: Hazardous waste used as fuel

During 2022, 3,860 tonnes of high caloric value hazardous waste were used as fuel for the thermal oxidizers at Agan and MCW NH, saving natural gas.

New life for plastic

- We operate internal plastic recycling centers at the Agan and Makhteshim sites, where we wash and grind plastic barrels, IBCs, and large bags.
- We collect empty, used plastic containers from Brazilian and EU farmers to upcycle them into industrial piping. We do the same in Israel, where recycled plastic serves to produce new containers with up to 30% recyclable material.

The Green Station project

Operates plastic recycle centers to wash and reuse more than 450 tonnes of empty containers annually.

Chemical recycling practices

We recycle solvents, acids and bases for internal or external reuse at the Agan and Makhteshim sites.



One of our "Green Stations" in Israel

Hazardous and Non-Hazardous Waste by Treatment (tonne)

	2018	2019	2020	2021	2022
Total Hazardous Waste	23,429	44,766	121,262¹	158,735²	143,752³
Hazardous Waste to Landfill/Incineration	NA	40,827	40,649 ⁴	49,464	61,230
Hazardous Waste to Recycling	NA	3,939	80,613	109,271	82,522
Total Non-Hazardous Waste	8,214	108,804	79,256	78,061	37,240⁵
Non-Hazardous Waste to Landfill/Incineration	NA	107,165	72,646	71,049	30,830
Non-Hazardous Waste to Recycling	NA	1,639	6,611	7,013	6,410

Soil and Groundwater Remediation

We thoroughly monitor and remediate contaminated soil and groundwater at most of our sites. In 2022, we initiated groundwater and soil gas remediation at one site, finalized a comprehensive soil gas, soil, and groundwater analysis at another site, and conducted verification sampling to verify the remediation outcome at a third site.

1. The increase in 2020 figures is due to the inclusion of significant by-product streams that were not previously included in ADAMA's hazardous waste figures.
2. Includes Hui Feng (2nd half), Lycored, and ExperGrow production site
3. Not including our subsidiaries Lycored and ExperGrow
4. For 2018: Only Overall Waste is available, without treatment methods
5. Improving technologies



Looking Ahead

- We are committed to continue reducing the use and disposal of plastic in our operations and increasing waste recycling
- We are in the process of embedding recycled plastic in the production of our containers
- We are in the process of evaluating the disposal of organic hazardous waste in a cement furnace as an alternative to incineration and landfill

BRINGING SUSTAINABILITY TO OUR CHINESE FACILITIES

In 2018 we began an ambitious project to improve the environmental impact of our Chinese facilities by relocating them from their old commercial quarters to new industrial parks, while upgrading their environmental design. 2022 saw increased activity on this project.

The relocation of Sanonda was completed at the end of 2020, and commissioning took place during 2021. The new plant is already in production and features two state-of-the-art regenerative thermal oxidizers, an upgraded biological wastewater treatment plant, and odor and noise control. Special attention was given to infrastructure that eliminates the risk of soil or groundwater contamination. A dedicated on-site solid incinerator will minimize hazardous waste disposal.

We began relocating the Anpon facilities in 2021 and intend to finalize it during 2024. In 2022, the plant upgraded its biological wastewater treatment plant, installed a thermal oxidizer, and constructed a new hazardous waste warehouse. Meanwhile, in order to ensure continuity in production, waste gas systems were installed at the old site.

In 2022, Huifeng resumed and ramped up production while operating an upgraded biological wastewater treatment plant and an array of regenerative thermal oxidizers. Local soil and groundwater remediation was completed in 2022 and is awaiting approval by the local authorities.

Environmental Systems being Implemented in Chinese Facilities

Waste type	Environmental systems being implemented	Sanonda	Anpon (Maidao)	Huifeng
Wastewater	Biological treatment	+	+	+
	Membrane filtration	+	+	+
	Waste gas treatment	+	+	+
Air and Odor	Organized source treatment by thermal oxidizers	+	+	+
	Non-organized sources treatment by adsorption system	+	+	+
	Comprehensive organized and non-organized source capture system	+	+	+
Hazardous Waste	Solid and/or liquid incinerators	+	-	+
Soil and Groundwater	Isolated floor and drainage ditches surrounding workshop and facilities	+	+	+

Leading Sustainability Initiatives in China

We believe that company culture is just as influential as environmental initiatives for reducing our carbon footprint. To that end, we implemented several awareness sessions with our people to:

- Improve awareness of energy-saving and carbon reduction for all our site staff
- Communicate our energy-saving and carbon reduction policy and initiatives
- Create a positive internal culture of supporting energy-saving and carbon reduction

The outcome for 2022 exceeded expectations. GHG emission intensity decreased by an average of 12%.

	2022 CO ₂ e (metric tonne)	CO ₂ e per 10,000 comparable price		
		2022	2021	Decrease ratio
Anpon	427,330	2.3	2.4	3.1%
Sanonda	631,532	3.6	4.7	23%
Huifeng	128,441	0.95	1.2	22%
Total	1187,303	2.4	2.7	12%



Energy Case Study: Energy Efficient Aeration System, Sanonda

Constant air supply is essential for biological wastewater treatment plants. However, it is also a significant electricity consumer. As part of its energy efficiency plan, Sanonda upgraded its aeration system, enabling an annual saving of about 2000 MWH.





Waste Case Studies:

ADAMA China adopted the principle of circular economy, and integrated technologies to minimize hazardous waste generation and increase reuse and recycling.

Transforming Phosphorus in Effluents into a Commercial Byproduct, Sanonda

The phosphorus removal system combines physical, chemical, and biological tools, such as advance oxidation, bioreactors, membrane filtration, and precipitation with calcium. This results in the byproduct calcium hydroxyphosphate, which we now sell as a phosphorus resource in several industrial sectors.

Decreasing Wastewater Sludge Humidity, Anpon

The chemical and biological treatment of wastewater generates sludge, which is considered a hazardous waste and is usually shipped to be incinerated outside the site. The sludge humidity level is in direct correlation to the energy consumption by transportation and incineration. In 2022, Anpon constructed two low-temperature (75°C) sludge drying devices which reduce sludge humidity from 80% to 25%, decreasing both sludge weight and incineration energy consumption.



Air Emissions Case Study: Recovering Raw Materials Back to Production, Huifeng

Waste gas absorption systems based on resins are limited by capacity, yet they enable back flush and recovery of chemicals. When high concentrations of chemicals enter the system, it becomes quickly saturated, causing its removal efficiency to decline considerably. By recovering fluorobenzene and dichloroethane, two major waste gas chemicals, average waste gas concentrations were reduced from 250,000 ppm to below 80 ppm, and these chemicals were returned to production as raw materials.

Looking Ahead in China

- Water treatment project in Huifeng
- Save electricity by upgrading Anpon's chloralkali membrane system to a modern model with better efficiency
- Sludge drying in Sanonda and Huifeng
- Detailed investigation into soil and groundwater pollution at the old plant area of Sanonda
- Embed energy management system certification at the three Chinese production sites



ADAMA

Our People and Communities



OUR PEOPLE PROMISE

At ADAMA, we have a unique People Promise that places our people at the center of our success. Our sense of community, our openness to conversation at every level of seniority, and our commitment to diversity, inclusion, and mutual respect, means that ADAMA people feel supported and safe. We encourage our people to take the initiative and challenge the status quo, and we are always happy to hear someone speak up with a new suggestion or better way to manage things. At ADAMA, the possibilities for growth and professional development are endless. At the same time, we expect a lot from our people. We challenge each other and ourselves to keep improving, and believe that anything is possible, even when the going gets tough.

We believe that this is what makes ADAMA more than just a workplace. It's a place where people come to grow, to develop, to find support, and to achieve their goals.

Continuous Listening to Our People

We place a great deal of emphasis on listening to our people, and feel it is an essential part of creating a positive work environment that promotes employee satisfaction, retention, innovation, and legal compliance. We do this through regular pulse surveys and other methods.

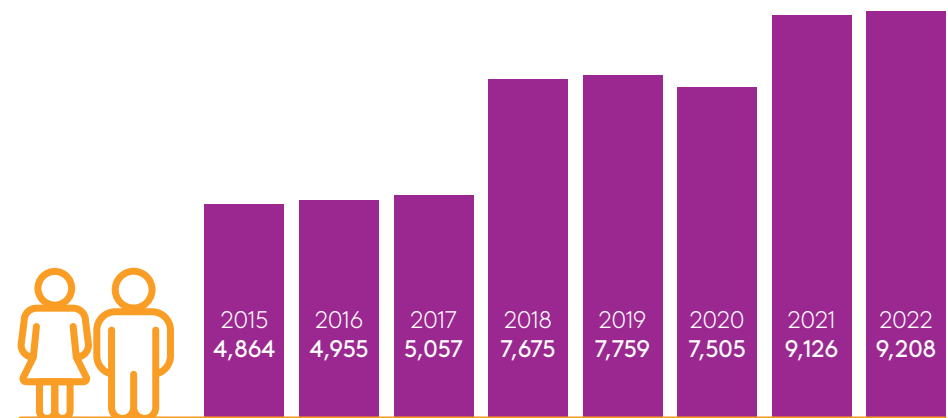
We will continue our continuous listening journey through our global engagement survey in 2023 (to be conducted as part of Syngenta Group) as well as by launching an onboarding survey for new hires to provide feedback on their experience following three months at ADAMA.

ADAMA: One of Israel's best places to grow your career

ADAMA - as the Israel headquartered business belonging to the Syngenta Group - was selected as one of LinkedIn's top 25 Best Workplaces to Grow your Career in Israel. To build the list, LinkedIn considered components like how employees advance during and after employment, how they upskill, and more.

ADAMA's Workforce - Our Growing Team

ADAMA's team has been growing rapidly, reaching 9,208 people by the end of 2022. Our turnover rate stayed within normal range, varying from 13.7% in 2021 to 13.3% in 2022. At the end of 2022, only 21 of our people were employed part-time. 14 of them are women.



FAIR EMPLOYER

At ADAMA, we are committed to creating an environment in which everyone is treated in a fair manner. We strive to support equal opportunities without discrimination in hiring, compensation, access to training, promotion, termination, or retirement for all our people and employee candidates.

ADAMA neither distinguishes nor discriminates on any occasion on any basis including gender, race, sexual orientation, religion, nationality, age, disability, marital status, union membership, or political affiliation. ADAMA is an active human rights supporter and fair employer.

ADAMA complies with all relevant labor and employment laws in all countries in which we are active, including the payment of required minimum wage, or above. In many cases, we have established employment procedures and policies above and beyond the standards required by law.

The conditions for employment at ADAMA are determined by collective agreements, personal contracts, or other arrangements, in accordance with the relevant laws in our various countries of operations.

Freedom of Association

ADAMA recognizes the right of our people to join trade unions, conduct collective negotiations, and enjoy all the rights available to them through their membership in those unions. We have never restricted freedom of association, and we continue to support the process of collective negotiations that cover pay rates, working hours, certain benefits, and other terms and conditions of employment. In 2022 we had 1,513 employees in collective agreements (16.4% of total employees).

Human Rights

ADAMA is committed to protecting the human rights of all people. We place great importance on this value and view it as a cornerstone of our activities. We recognize that we have a responsibility to respect human rights throughout our operations and supply chain, and we are committed to upholding this responsibility. We will continue to review and improve our policies and practices to ensure that we are living up to our commitment to human rights.





Legal Compliance

We see compliance with the Code of Conduct and applicable laws as everyone's responsibility. We invest great efforts into identifying and working with business partners who aspire to conduct their operations in a similar manner.

Fair Remuneration

ADAMA provides our people with all the benefits required by law, and in many cases above the legal requirements. To help us define criteria for salaries and benefits, we conduct annual salary surveys (salary benchmarks), which help us evaluate the standard for our terms and conditions versus the market in each country.

This is especially prominent during the process of Fair Employment, our global annual compensation review process. The benchmark survey focuses on parallel or similar industries around the world. Our goal is to provide remuneration that is equivalent to, or surpasses, that in local markets.

Anti-Harassment Policy

ADAMA has a zero-tolerance policy for discriminatory, harmful, harassing, or humiliating behavior toward our people, irrespective of religion, gender, race, nationality, age, or disability. We have established a clear policy against harassment, and we conduct training sessions to ensure the requisite respect toward one another. We place great importance on this matter and handle any complaint with immediate attention and the utmost seriousness. ADAMA acts in accordance with applicable laws, relevant agreements, and the company's Code of Conduct.



In 2022 there were **17** cases reported to SpeakUp, an internal confidential free reporting system

HEALTH, SAFETY AND WELFARE

We are committed to investing everything necessary to ensure the health and safety of our people. We strive to proactively address health and safety risks, identify skill gaps, implement advanced technology, and promote a safety-oriented organizational culture. We have set a zero severe injury goal for ourselves, and we thoroughly investigate each incident and identify lessons learned, ensuring we make progress each year. Our commitment to our people's health and safety is stated in ADAMA's Global HSE (Health, Safety, and Environment) Policy and supported by our Code of Conduct.

Upgraded HSE Management System

During 2022, we significantly upgraded our HSE management system, methodology, and supporting tools. Our aim is to shift ADAMA's safety culture from a dependent or reactive approach, mainly focused on compliance and managing HSE as an expense, to an independent, or proactive approach, where HSE is a choice and a value, and where leadership closely manages HSE and sees it as an investment. These goals are based on the well-known Bradley curve.

Our target is to reach the independent sector of the Bradley curve within five years, and to achieve this, a five-year plan has been formulated with well-defined goals and implementation tools.

Our goals are:

- Reduce the number of injuries to the minimum
- Reduce the severity of injuries (if and when they occur) to achieve the goal of zero severe injuries
- Increase openness and learning by reporting near-misses and unsafe conditions
- Increase management involvement by spending more time on the shop floor

The heart of our HSE management system is the HSE Professional Forum, consisting of all ADAMA's HSE managers. The HSE Forum leads the HSE Community, a team of ADAMA people throughout our regions and operations facilities, who champion health and safety to protect our employees, nearby communities, and the environment.

The HSE Forum and Community are aligned with the growing expectations of our stakeholders, including customers, suppliers, investors, and governmental agencies. HSE plays an integral role in our production, marketing activities, and overall strategy.

In 2022, we re-examined our entire approach to HSE and formulated a global unified HSE management system, alongside a variety of tools for ongoing management, engagement, accountability, and continuous improvement.

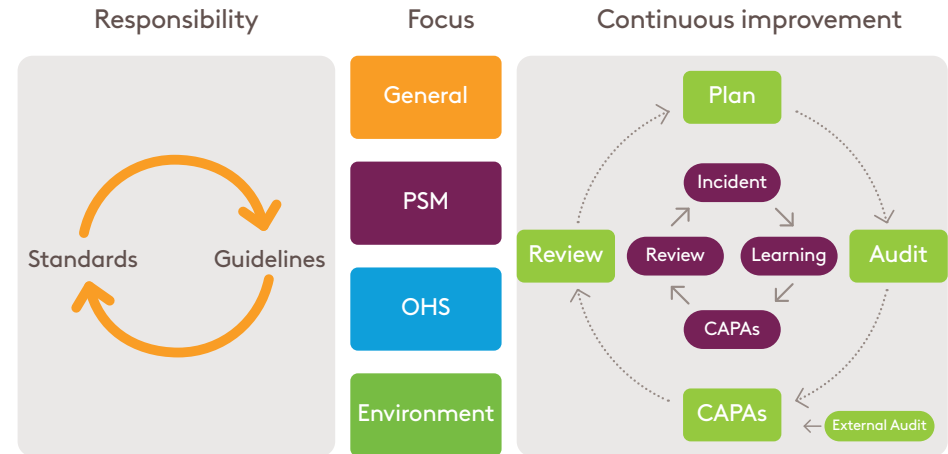


The ADAMA HSE management system is comprised of two key practices:

- 1. Accountability** - sets expectations and internal standards that are fully integrated into the organization's activities and related guidelines.
- 2. Continuous Improvement** - comprised of two circular processes: self-assessments, and internal and external audits, that serve as a proactive method to review and identify HSE gaps. Incident learning is a reactive practice to close HSE gaps which already put the organization at risk. Both processes integrate corrective actions and review phases, closing the loop.

These two practices focus on our leading HSE topics: process safety, occupational health and safety, environmental protection, and general HSE topics such as policies, reporting, learning, and audit processes.

The updated HSE management system improves our ability to identify and eliminate HSE gaps by shifting our approach from reactive to systematically proactive. It also expands the scope to include more HSE topics and brings ADAMA into alignment with Syngenta Group standards.



Key Elements in the Upgraded HSE System



1. Standardization - formulation and launch of approximately 55 new internal standards and guidelines for health and safety management. Each standard offers a checklist that allows our production sites to test themselves and evaluate their ability to support the standard.

- General** Policies, cross field standards and guidelines, self assessments (11 documents)
- PSM** Process safety management standards and guidelines (23 documents)
- OHS** Occupational health and safety standards and guidelines (21 documents)
- Environment** Environment and sustainability standards and guidelines (12 documents)

2. New assurance plan - each standard includes self-assessment guidelines, which are the first line of defense. These are followed by an internal cross-site assessment as a second line of defense, aimed at correcting biases that exist in self-assessments. At the end of the process, results are independently verified via a Global External Audit according to a predetermined matrix.

The process is based on two main principles:

- (1) Systematization - assures consistency in annual execution.
- (2) Proactivity - in self-assessment, internal and external audit.

Frequency of conducting HSE self-assessments and audits according to the site's size and risk category

Site risk	Site size	Large (>250 employees)	Medium (50-250 employees)	Small (<50 employees)
High (major inorganic and/or synthesis)		3 years	3 years	3 years
Medium (minor synthesis and major formulation)		3 years	5 years	5 years
Low (mainly formulation and packing)		5 years	5 years	5 years

Site leading indicators and proactive activities include focus areas such as:

- Unsafe conditions that are identified, reported, and managed by the site
- Near-miss reporting
- Site manager's safety tour
- Additional proactive activities on site (beyond compliance)

3. HSE Leadership Program - A program that involves the management of the sites in the HSE process, with a focus on engagement and accountability at all levels of management. We began developing the program in 2022, and plan to launch it in 2023.

Safety transformation involves three leadership levels:

- Top leadership (CEO, Global Operations (GO), Legal, HR, R&D, Sales): Driving safety culture change in the organization
- Regional leadership (GO members and country management with a production site): Leaders in safety and engagement with commercial
- Production site managers: Safety as a value, safety and production live in harmony

Full implementation of the accountability mechanism was initiated in January 2023, when the production managers started reporting injury incidents to top operational management in a centralized way. The report includes an in-depth investigation of the incident, corrective actions, and more.

Management of Employee Health and Safety Risks

The upgraded HSE management system and the new tools were built based on an in-depth risk mapping, an analysis of the safety incidents that occurred in the company, and the identification of the main issues for improvement. Accordingly, we chose the following focus areas:

General	Digitalization Assurance program
PSM	Mechanical integrity Hazardous material storage competence
OHS	Machinery safety Leadership for safety

Unified Global Digital Platform

ADAMA uses a variety of digital tools at our operational sites, to report and manage health and safety incidents, take proactive measures, and audit findings. Yet ADAMA would like to expand the use of digital tools to include work safety permits, safety training, and more, and therefore we decided to establish a single, extended digital platform to manage all aspects of HSE in the company. In 2022, we developed the requirements specification for the system, and it is expected to come into full use throughout our sites in 2024-2025.

It is important to emphasize that ADAMA has a dedicated portal - ADAMAZONE - which offers extensive and accessible information on standards, contacts, indicators, statistics, and required reporting guidelines. In addition, posts about HSE issues can be uploaded to the portal for sharing and consultation with colleagues, immediately providing support and assistance to ADAMA's field leaders.

HSE Training

In December 2022, all HSE Forum members and relevant internal stakeholders from eight countries came to a week-long **Annual Health, Safety, and Environment Workshop** at our headquarters in Israel, where they experienced in-depth training sessions about the new HSE management system. The workshop was hosted by ADAMA's CEO, who welcomed the participants and acknowledged the financial and technical contributions of the HSE teams to the organization. The HSE Forum members also shared their expertise and experience with each other.

In parallel, we continue to invest significant resources in training our employees regarding incident prevention:

- Mandatory training for all employees - all employees must undergo a refresher training of one to two days, according to the local regulation in which the site is located
- Local safety risks - all employees undergo annual training regarding the risks in their specific work environment
- Dedicated training for the emergency crew
- Safety conversations with managers and employees on the subject
- Monthly enrichment sessions
- Communication regarding lessons learned post-incident; after each incident, a one-pager is distributed to all company employees

All sites measure and monitor the safety training sessions they have done.



Annual Global HSE Forum, December 2022

Our People's Well-Being

We give special attention to promoting the health and safety of our people within the context of a safe environment and employee well-being. Our focus is on empowerment, enablement, and engagement.

We ensure that all our people have a safe work environment by:

- Enforcing anti-harassment - we take actions to prevent discrimination and harassment
- Enforcing an anti-sexual harassment environment - we have a relevant officer in place, and work to prevent, and take appropriate disciplinary action for, any misconduct

In addition, we ensure that our work environment enables work-life balance and supports the personal and financial well-being of our people. Some of our sites promote new initiatives that address various issues, including physical and mental health; safety culture development; job responsibility design; fun in the workplace; and more.

ADAMA conducts a quarterly global webinar, open to all our people, dedicated to dealing with work pressures, improving work-life balance, time management, and various welfare topics. In addition, hybrid work of two days a week from home is accepted in many countries for roles that allow it.

Employee Assistance Program (EAP)

Our people's many life events - whether predictable or unexpected - impact their emotional, psychological, and social well-being, influencing their thoughts, feelings, and actions. The Employee Assistance Program (EAP) is an independent counseling and resource service available 24/7 to all our people and their families in local languages. It provides confidential access to professional counseling and helpful resources.



Case Study: Family involvement in safety campaign

A safety campaign held in ADAMA Brazil brought together the site workers and their children to learn about the importance of health and safety, increase their awareness, and reward outstanding employees. View a [short video](#) about the initiative.



Case Study: HSE App "ADAMA-Safe"

To ensure convenient access to safety-related content, we have developed and launched an HSE app.



All our production sites in Israel use the app to report unsafe conditions, including assigning incidents to the responsible party, tracking progress, and remediation of the hazard.



Case Study: Proactive approach towards safety and well-being

ADAMA's production site in Dahej, India, formulated a concept of employee engagement and empowerment based on physical and mental health and a supportive social environment, alongside strengthening the internal culture as a supporter of employee health, welfare, and safety.



For physical health, the company offers regular checkups and consultations with a doctor and other professionals. For mental health, the company promotes empowerment, creation of social activities, a network of social connections, and an environment free of harassment. Among the engagement activities are yoga days, marathons, ADAMA's Values competition, the celebration of Women's Day, the celebration of local festivals, and more.

The site supports an ongoing safety culture program in which our people take a safety oath; outstanding employees in the field are rewarded (on a monthly and annual level); plus a wide range of competitive, gamified activities for experiential implementation of the site's safety principles and guidelines. In addition, every year the site dedicates a full week to health and safety as part of the National Safety and Health Week.

In 2022, the site invested in the purchase and distribution of approximately 2,500 high quality scooter/motorbike helmets for use by our people on their way to and from work.

Safety Monitoring and Reporting

We measure and monitor all processes and perform in-depth analysis of each safety incident, so that we are better prepared to prevent recurrences.

During 2022, as part of an overall change in our safety culture, we modified the incident learning process to shift from the HSE team to be led by site managers and GO leadership. This change allows managers to be more involved and accountable in the learning process and any required corrective actions. Moreover, this enables the expansion of the reporting system alongside the involvement and accountability of local management.

ADAMA's Global HSE team hosts monthly meetings with HSE managers from all our sites and with senior management. These meetings provide the opportunity to discuss the status of current safety indicators and determine what steps need to be taken to strengthen and monitor the implementation of our HSE management system. Additionally, we measure and publish monthly safety KPIs and reports.

We offer our people free, periodic, confidential medical tests to ensure their health. These may include blood and urine tests to help determine whether they have been exposed to unsafe substance levels. In addition, we run periodic tests at all our manufacturing plants, to determine the level of hazardous materials that may be present in each work area.

During 2022, we expanded our activity, and as a result our injury rate grew. We had **74 recordable injuries** in ADAMA's Global Operations in 2022, leading to an Injury Recordable Rate (IRR) of **0.67**.

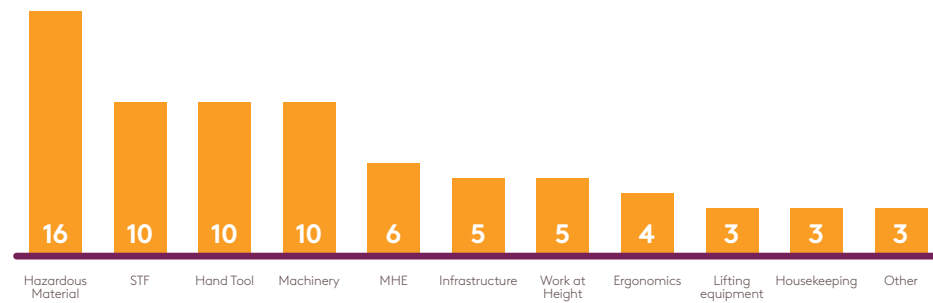
Throughout the entire company (including Global Operations) we had 75 recordable injuries, leading to a consolidated IRR of 0.27.

62% of the recordable injuries were ADAMA employees, and 38% were contractors.

Most of the injuries were cuts that required stitches (10), bruises (9), and fractures (5). We also had 3 cases of fingertip amputations. Out of all the recordable injuries, we identified 11 cases (28%) that had the potential to be a serious injury or fatality (SIF).

The key hazards of the recordable injuries were Hazardous Material, STF (Slip Trip & Falls), Hand Tools, and Machinery.

Recordable Injuries - Main Hazard



It is important to emphasize that we treat all employees as equals, which is the reason the number of accidents includes permanent employees, contractors, and accidents on the way to and from work.

Injury Recordable Rate in Global Operations 2020-2022

Year	2020	2021	2022
IRR - Injury Recordable Rate	0.58	0.46	0.67

Non-Recordable Cases 2020-2022

Year	2020	2021	2022
First Aid Injury	70	23	53
Near Miss & Unsafe Conditions	242	326	1,023

During 2022, we recorded 12 driving accidents, most of them forklifts at one of our sites.

Looking Ahead

In 2023, we plan to promote the full implementation of our new HSE management system, with a special focus on the training program, monitoring, and reporting tools.

We plan to invest in the development of a new digital platform to serve all ADAMA sites, with the goal of standardizing our HSE practices globally.

LEARNING AND DEVELOPMENT

At ADAMA, we know that achieving excellence requires the highest level of professionalism alongside a robust company culture.

Our Global Learning and Development mission is to empower our people and leaders to drive their own career path, take ownership over their learning and development to achieve business goals, and enable both their success in their present role, and to prepare them to take the next step in their career. We do this by offering unique and varied programs, tools, and platforms to all our people globally (located in over 50 countries, speaking more than 20 languages) and across all professions from chemistry and agronomy, to marketing, commercial, law, finance, human resources, and more.

Throughout 2022, we focused on:



Deepening our understanding of learning and development needs and providing our people with a vast range of relevant, timely, and specific solutions and tools to enhance their skill sets and increase their employability.



Strengthening the dialogue between managers and employees around personal development and shared learning.



Promoting learning in the flow of work and offering holistic learning and development opportunities integrated with organizational processes.



Investing in the development and growth of our leaders, to reach their potential and ensure their success.



Empowering our people to leverage state-of-the-art digital platforms to enhance their professional contribution and upskill their capabilities.



During 2023, we will continue this journey of nurturing a continuous learning and development culture.

Our commitment and initiatives dedicated to the development and growth of our people is reflected in their empowerment, satisfaction, and the retention of talents.



Employee Retention Rate in 2022 **87.6%**



New employee orientation at ADAMA Agan plant in Israel, December 2022

Learning and Development Opportunities

Welcome to ADAMA - Employee Onboarding

The first few months at a new company are an important time for mutual learning. When done right, the onboarding process sparks a productive and exciting partnership between the new colleague and their direct manager, peers, team, and the broader company.

Global Onboarding Hub

We offer a Global Onboarding Hub designed to support our people with materials and tools that promote the learning required to be successful at ADAMA. It is regularly updated, and in 2022, we added new modules to ensure that the onboarding experience is valuable and effective.

This platform is currently available in the five most-spoken languages across ADAMA (English, Hebrew, Spanish, Portuguese, and Chinese) and will be expanded to include eight additional languages during 2023.

Face-to-Face Orientation Meeting

In 2022, we launched a quarterly face-to-face Orientation Day and follow up sessions for new joiners at our Israel headquarters. An impressive 80% of individuals who joined us since January 2021 have actively participated in one of these sessions. During these events, new joiners have the opportunity to hear from ADAMA leaders and functional representatives, allowing them to gain familiarity with different areas of the business. Additionally, these gatherings provide a valuable platform for networking with fellow new joiners.

Holistic Learning Approach

At ADAMA, we encourage our people to embrace continuous learning through a variety of channels. In 2022, we executed a global communication campaign highlighting a different learning channel each month (e.g. digital learning, podcasts, shadowing, knowledge sharing, lessons learned, etc.), exposing employees to our diverse learning offerings and sparking their interest in personal growth and development.

In addition, our local sites offer various learning and development opportunities tailored to their specific needs.

Learning Edge for Online Learning in the Flow of Work

Based on an internal pulse survey conducted in November 2022, more than 50% of our employees use our online platforms for learning both technical and soft skills. Now, through Syngenta Group's state-of-the-art Learning Edge platform, our people can learn anywhere and anytime in over 25 languages and on any device. We launched the platform in the fourth quarter of 2021 and have continued to consistently train our people on how to leverage it, as well as promote its benefits.

Learning Edge is partially integrated with ADAMA's Spark platform, so it hosts both content developed internally by subject matter experts, as well as content from a broad range of external professional content libraries (e.g. LinkedIn Learning, getAbstract, McKinsey, TED, edX, GlobeSmart, Association of Supply Chain Management, and more).

During 2023, we will complete the integration with Spark for a seamless, user-friendly social learning experience.



More than **50%** of our employees use our online learning platforms available anywhere and anytime in over **25** languages

Mandatory and Local Training

On a global level, our people are required to complete e-learning trainings addressing topics such as ADAMA's Code of Conduct, health and safety, data privacy, sexual harassment, competition law, cybersecurity, and more. These training sessions are automatically assigned at the required frequency, based on role and geographical location, to ensure that we remain compliant and meet all mandatory training needs across the globe. Role-specific mandatory training sessions are assigned to the relevant employees, covering topics such as sales, marketing, and process safety.

Leadership Development and Growth



A Guiding Framework

We believe that the success of a company is deeply grounded in the quality of its leadership. Our Leadership Framework describes the skills and behaviors that characterize a successful manager at ADAMA. This Framework serves as the basis for screening and hiring senior personnel, and drives the content of various management development programs, succession plans, and manager evaluations.

New Leadership Programs in 2022

We developed and launched several new programs for ADAMA's leaders in 2022, each targeted at different populations, and each developed uniquely for its audience. The programs have been built together with renowned experts in the field of leadership, including Kincentric, Korn Ferry, and the Institute of Leadership. Many of the leadership programs are offered in partnership with Syngenta Group, promoting collaboration and networking and developing the skills needed for today's dynamic, constantly changing world of work. They are aligned with our Leadership Framework.

We offer various programs targeted to different levels of leadership within ADAMA, including several new ones that were launched in 2022 that had 31 participants: Voyager, Leading Syngenta Group, and Leadership Academy. This is in addition to the nearly 500 people who have participated in our other ongoing leadership programs.

Talent Mapping

Our annual "High-Performance: High Potential" (HiPo) mapping process takes place among our Leadership Community and their direct reports. The purpose of this process is to assess our bench strength and support our high potential employees (HiPo's) with creating Individual Development Plans, including a variety of learning opportunities through coaching, mentoring, and various training sessions.

Global Career Development Program

Our Global Career Development Program continued offering online workshops to our people at various management levels in 2022. Employees were invited to join sessions aimed at exploring their strengths, learning about potential career growth opportunities, understanding what skills are needed, and how to put a plan in place for future development. Managers joined workshops to learn how best to support their team members' career journey.

Internal Mobility



31% of all open positions were filled internally in 2022

We are committed to fostering growth opportunities for our people. Our internal mobility policy encourages and enables individuals to pursue complete, long-term careers within our organization.

We believe that it is in everybody's best interest to provide full support to team members who want to grow and advance to a different role within ADAMA. For this reason, our internal mobility policy sets a clear priority for internal applicants over external applicants for open positions at ADAMA. After working for two years at ADAMA, any employee may apply for a new position within the company.

All relevant job openings are accessible through our internal career portal, and are published two weeks prior to becoming publicly available.



Our team in India participating in a sports event

DIVERSITY, EQUITY AND INCLUSION

ADAMA cherishes the diverse richness of varying cultures, and enjoys the benefits that this vibrant mosaic brings. At ADAMA, we aim to create an engaging, passionate, and empowering environment, where all our people have equal opportunities to grow and thrive.

We believe that diversity and inclusion promote our business success in bringing diverse cultures, ideas, and opinions to our workforce. As part of Syngenta Group, we hold true to Syngenta’s policy of embracing diversity and inclusion, unlocking our collaboration and innovation potential to shape the future of agriculture and build a more equitable and sustainable world for all.

In 2022, we committed to hiring a full-time global DEI resource, and in early 2023 we hired a new team member to fill that role.

ADAMA's DEI Purpose:

We strive to better the lives of all our people at ADAMA and enable them to flourish when we embrace differences, value inclusivity, show respect to all, ensure equity and empower authenticity

[Read our Diversity and Inclusion Policy >>](#)

Our DEI Purpose comes to life through four main pillars:



Eliminating biases

- Awareness
- Training
- How do we approach offensive behaviors?

Promoting equity

- Equitable policies
- Gender pay equity
- Diverse recruitment practices
- Diverse representation

Impacting community

- Align our community activities with our ambition

Empowering people

- Creating an inclusive culture
- Future of work practices
- How do we encourage people to fully contribute and grow?

Age Diversity

At ADAMA, age is not a factor in hiring decisions, remuneration, nor promotion. The company believes that diversity regarding multiple parameters, including age, is important for the quality of work and the overall working environment.



30.6% of workforce and **38.4%** of managers are employees over the age of 50

Employees over 50 in workforce and in management roles

	2019	2020	2021	2022
% employees over 50 in workforce	24.0%	25.6%	30.8%	30.6%
% employees over 50 in management roles	34.6%	38.5%	40.4%	38.4%

Inclusive Leadership Workshop

Building on the DEI strategy formulated in 2021, in 2022 we held inclusive leadership workshops for our senior leaders (Leadership Community), People Community, and Maestro program graduates globally. Over 50 leaders joined one of four sessions facilitated by Ionis International to explore the meaning and business case for building a diverse, equitable, and inclusive culture within our global business.

Using the GlobeSmart cultural profile, participants explored their cultural preferences and discussed what actions they, as ADAMA leaders, need to take to drive a sustained culture of inclusion across our global teams and business.

We encourage our local People professionals to adapt and use these materials for their regions, and one such workshop was run in 2022 in the EAME region.

Gender Diversity

ADAMA places great importance on encouraging the employment of women in all roles across the company, and recognizes the need to increase the percentage of women in the workforce. Wherever possible, we have established a policy of flexible work hours to enable our people to balance their work hours and family time. We also enable our people to do some of their work from home.



~25% of workforce and **~24%** of managers are women

Women in our workforce and in management roles

	2019	2020	2021	2022
% in workforce	23.5%	24%	24.4%	24.9%
% in management roles	24.2%	24.6%	25%	23.9%



Pay Gap

Our salary gap data indicates a positive trend of improvement along with a preference for women in some levels.

Gender salary ratio

Ratio of basic salary and remuneration of men's base salary, divided by women's base salary in USD, by level	2020	2021	2022
Top Management	109%	112%	108%
Senior Management	105%	114%	119%
Middle Management	97%	93%	95%
Non-management	76%	72%	75%



DEI Case Study: Celebrating an All-Woman Product Team

A new product in the USA developed to protect soybeans and cotton from chewing insects is the first to have been led by an all-woman team at ADAMA. From the Strategic Crop Marketing Leader, who identified the need, to the Development Leader, who identified the relevant product, to the Regulatory team, who registered it efficiently, all the way to the Project Manager and Strategic Marketing team who are handling the launch, these nine ADAMA women have contributed to getting this product to market. To celebrate this all-woman team, ADAMA US decided to amplify this message by offering an annual scholarship for Women in Agriculture, to encourage, support, and empower women and their career aspirations.



DEI Case Study: Partnership with Co-Impact: Integrating Arab Society in Employment

ADAMA has been collaborating with Co-Impact since 2020, a non-profit organization that aims to integrate Arab employees into Israel's economy and society. The project was approved and endorsed globally in 2021 by the CEO.

Co-Impact assists us in locating talented candidates for various positions, and supports us in adapting our recruitment processes to this population. During 2022, four new employees were recruited from the Arab society, exceeding our goal of three new academic recruits from this sector for 2022.

Additional activities included a recruitment conference with Arab students aimed at introducing them to employment opportunities at ADAMA, and community outreach projects. To learn more, [watch this video](#)





DEI Case Study: Gender Diversity in Manufacturing

In response to the impact of the Covid-19 pandemic on rural Indian communities, ADAMA India took proactive steps to recruit women for its production packing line and engineering roles. Our representatives engaged with village leaders and families, addressing safety concerns and highlighting the economic benefits of women working outside the home. At the same time, we conducted diversity training, built women-oriented infrastructure such as child-minding and changing facilities, established POSH (Protection Of Sexual Harassment) committees, and provided transportation to and from the plant.

As a result, the percentage of women in our workforce in India increased from 6% in 2021 to 13% in 2022, with 100% job satisfaction and retention. Our goal is to reach 25% representation by 2025.



Something new on the horizon: a woman engineer training other women employees in the ADAMA formulation plant in India



DEI Case Study: A Strategic Approach to DEI

In 2022, to transform the company into a more diverse, equal environment, our DEI team in Brazil formed a dedicated committee that organized various awareness activities throughout the year, such as focusing on combating racism and violence against women. These were designed to create space for the evolution of people's thoughts and actions.

One of the goals for 2023 is to ensure that at least 33% of the shortlist for open positions are women. In the coming year, we have planned additional activities, including trainings and sessions and measurements, to further drive progress in Brazil.



Our team in ADAMA Brazil: transforming into a more diverse company

Supporting Our People and Farmers in Ukraine

Since the conflict in Ukraine began in 2022, we have been doing all we can to help the people of Ukraine, ensuring the safety of our employees and their families, and supporting our farmer customers to maintain vital agriculture.

Helping ADAMA People to Safety

Our first mission was to ensure the safety of ADAMA Ukraine employees and facilitate their relocation to secure locations. Our people from nearby countries, including Poland, Romania, Czech Republic, and Germany, contributed their efforts, in some cases meeting people from ADAMA Ukraine at the border and helping them obtain documents, healthcare, and jobs, and opening their homes to them. Overall, we helped relocate hundreds of people to keep them safe.

Supporting Farmers, Preventing Global Shortages

Despite the challenging conditions, many Ukrainian farmers have continued to work their fields. In response, we stepped up to support them by providing the products they needed to protect their crops. The conflict posed difficulties in exporting Ukraine's grain, so we leveraged our logistical resources and creativity to help transport 138,000 metric tonnes of wheat, corn, sunflower and other crops by floating grain down the Danube to Romania and Bulgaria; transporting it to Poland and Lithuania by truck and train; and shipping it out from Odessa's deep-water ports.



Long Term Physical and Mental Support

ADAMA continues to provide long-term support through "Operation Bridge," which delivers canned food, protective armor, medicines, satellite phones, and electrical equipment. Transporting aid has been an issue, and in addition to sending aid through "Farmers for Ukraine" and Polish Integration Support Centre (PISC), ADAMA UK took on the transportation of eight truckloads of donations through its logistics provider. Together with Syngenta, ADAMA is also delivering mental health support and financial support for Ukrainians. Furthermore, the "ADAMA for ADAMA Ukraine Fund" has funded a winter camp for children in western Ukraine.



COMMUNITY RELATIONS

At ADAMA, we believe social responsibility is an inseparable part of our business. This means we continuously listen to our stakeholders, communities, and partners to deepen our understanding of their needs. We design programs and initiatives together, using our combined capabilities, strengths, and resources. As a result, our programs are built on rock-solid foundations, ensuring long-lasting relationships that have a positive impact on our communities and our people.

2022 Community Investments

ADAMA donates at least 1% of our profit before tax each year. In 2022, ADAMA donated 2.8M USD (9.6% of profit before tax).

Our social investments are mainly in our key regions: Israel, India, Brazil and North America. However, we encourage and support local community activities in every country in which ADAMA operates.

Monetary donations	2.8M USD
Volunteering hours	2,788*
Employee engagement	24%*
% Community investment from total profit (before tax)	9.6%

* Measured only in Israel, we are currently working on designing a global tool for reliable data collection



Agricultural volunteer activity for our people and their families in Israel, September 2022

Community Relations Policy and Strategy

Our policy implementation guidelines are based on six key principles:

1

Alignment with ADAMA's core business

We aspire to align our investments with the company's core business areas.

2

Measurable impact

We emphasize measurement and evaluation of our strategic programs to ensure they meet the set goals.

3

Long-term partnerships with potential for independent continuation

We accompany our social partners for a period of at least three years to increase the impact of our investments, while encouraging their independent continuation.

4

Geographical focus & multi-sectoral partnerships

We prioritize projects in the areas surrounding our sites (globally). Our programs are usually based on multisectoral partnerships that include governmental, NGO, and business sectors.

5

Employee engagement

We prioritize projects that allow our people to volunteer or mentor. It is a win-win situation where both our people and communities benefit.

6

Contribution to the company's reputation

We choose projects that have positive impact on our reputation and create a sense of pride amongst our people.

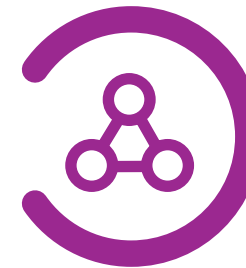
Our strategy focuses on three main pillars, two of which are aligned with our core business, promoting educational programs in chemistry, agriculture, and sustainability (60% of our budget). These programs are considered strategic community relations projects. The third pillar changes according to the needs of our local communities and addresses a wide range of challenges in the fields of health, culture, welfare, and more (40% of our budget), and typically include an element of employee engagement.



Supporting the Needs of Neighboring Communities

Promoting leadership in welfare, health, education, culture, and excellence

40%



Educating Future Chemists

Strengthening the chemistry sector

60%



Agriculture, Sciences, & Sustainability Programs

Promoting agricultural awareness and education

Strategic Community Relations Projects

Promoting Science and Agriculture Studies

We strive to educate and nurture the future generation of sustainability-oriented scientists, with a focus on chemists and agronomists. Throughout the years, we have collaborated extensively with leading academic institutions to promote excellence and encourage chemistry and agronomy studies. ADAMA leads, funds, and supports various programs, from their ideation process to their execution. We also facilitate training, mentoring, on-site visits, steering committees, and more.

Through these programs, we instill curiosity in these fields and empower students throughout their years of study, with the aim of strengthening the chemistry and agronomy sector with an eye towards sustainability.

We also understand the importance of educating young people about where our food comes from and the challenges of growing crops. By rolling up their sleeves and digging their hands in the soil, we help children discover the world of agriculture, connect them to nature, and promote values of sustainability.

ADAMA has initiated several programs focusing on educational activities, scientific experiments, and agricultural volunteering, emphasizing the value of work, mutual responsibility, and love of the land. We know diversity drives creativity, so these programs focus on reaching a variety of sectors within the vibrant and multicultural fabric of our society.





"Sowing Seeds of Science" ADAMA's Scientific Research Greenhouses



"Sowing Seeds of Science" was initiated in 2013, as part of our vision of promoting advanced agriculture by investing in educational infrastructure.

Over time we have invested more than \$500,000 in three educational farms in Ashdod (2013), Beer Sheva (2014), and Lod (2020). Our investment focused on building state-of-the-art facilities, which include scientific research greenhouses and digital classrooms, and developing unique educational programs. Thousands of school students visit the three farms each week, experimenting with scientific research under the supervision of the educational staff at the farm, experts from the academic world, and our people who volunteer there on a regular basis.

In 2021 and 2022, we added new professional content to include aspects of precision agriculture, healthy nutrition, sustainability, and more.



Experiential Environmental Education in Costa Rica



For the past three years, ADAMA Costa Rica has sponsored educational programs at the Del Monte Environmental School Festival. The festival takes place in the main pineapple-growing areas and is designed to promote concern for environmental protection and conservation. With some of our people as volunteers, local school children learned experientially about reforestation and recovering treated soils through better pineapple cultivation management.



"Science on Wheels" - Promoting Science education with the Bedouin Community in Israel

In 2021 we initiated a unique project to promote the study of science within local Arab communities neighboring our sites in Israel. "Science on Wheels", which operates in the small Bedouin town of Kuseife, is an educational program which provides STEM education for 7th graders in state-of-the-art laboratories. It also incorporates face-to-face meetings with our employees from the Arab society, who share their career experiences. In a series of 30 interactive sessions, the children are exposed to new academic subjects and empowered to consider new learning and career paths that they probably would not have considered in the past. Every year more students get involved, and what started as 80 in 2021 grew to 150 in 2022, and in 2023, due to the program's great success, we expect it to expand to 240 students.



Academic Chemistry Excellence Programs: "Marie Curie" and "Archimedes"

ADAMA is proud to have established two leading academic chemistry programs for outstanding high school students in Israel that bring practical tools into the academic curriculum. The aim of these programs is to increase the number of students studying chemistry at the university level, and create connections between the students, ADAMA, and the industry.

Since we launched the "Marie Curie" program at Ben-Gurion University of the Negev in 2014, around 460 students have taken part. The "Archimedes" program at the Technion - Israel Institute of Technology, established in 2012, has included around 670 students.

In 2021 and 2022, we launched an impact assessment process in these programs, led by an expert in the field of educational programming, to evaluate and improve their impact.



Employee Engagement and Community Relations Projects

Employee engagement through volunteering is a core value at ADAMA. We believe engagement creates a sense of fulfillment, motivation, and pride for employees.

Our volunteers are our ambassadors and a strong force for good. That is why we design a wide range of volunteering opportunities to ensure things get done with energy and enthusiasm.



ADAMA supports volunteering during work hours. In 2022 our people (in Israel) invested **2,788** hours in volunteering activities.



Instituto ADAMA Arts and Performance

Instituto ADAMA was founded in 2015, bringing together all the courses and recreational activities ADAMA had already been offering since 2002 to young people from communities neighboring its factories in Brazil. In 2022 Instituto ADAMA bounced back after COVID-19 closures with renewed strength. By the end of the year, 226 children and young people were regularly attending courses, totaling 40,300 individual visits and 500 volunteer hours.

They staged 19 productions and events, which attracted over 5,000 spectators. Some Instituto ADAMA participants have begun creating podcasts featuring interviews with ADAMA people, Instituto volunteers, and other participants. So far, they have published 18 episodes. [Click here](#) to watch the first episode about the rights of children and young people.





National Girls' Week - Striking a #powerpose

Sixty of our women at ADAMA, from all our sites in Israel, participated in "Israeli Girls Week 2022," organized by the local NGO "Shavot" ("Equals"). Four teams gave inspiring lectures to thousands of students - both boys and girls - at schools near our sites in Beer Sheva, Ashdod, Lod, and Beer Ya'akov.

The project was accompanied by a campaign on social media with the participation of our volunteers, as well as a special project with leading women from various industries.

The program's theme was "My Power Pose", highlighting the talents and strengths of young girls and women as drivers of growth and inspiration, so that every girl recognizes that she can be anything she wants to be!



Falling In Love with Blackberries

In Colombia, ADAMA runs the EnaMORate social campaign to improve conditions for blackberry cultivation for associations, farmers, and their families. EnaMORate is a combination of enamor, meaning to fall in love, and mora, the Spanish word for blackberry. ADAMA employees provided technical support and recognition for 40 blackberry farmers in 2022.

We also continued the "El Colibri" children's school foundation and community library. El Colibri has so far delivered art, sports, and recreational activities for over 50 children, helping improve their quality of life.





Connecting Children with Agriculture and Produce to People in Need

At our Raleigh, NC office in the US, ADAMA employees were involved in two initiatives aimed at introducing children to agriculture and assisting people in need by providing them with fresh, local produce. Each volunteer event saw the participation of ten to fifteen ADAMA team members.

At Brentwood Elementary school, we helped establish a community garden and are teaching the children how to cultivate it. Many families in the school struggle to make ends meet, so the produce is distributed to them, and the children enjoy eating food that they grew themselves.

Additionally, we partnered with Inter-Faith Farm and Food Shuttle, where we sponsored two buildings and several utility tables. ADAMA volunteers visit the farm to assist with planting, harvesting, and packaging the produce, which is then distributed to local families in need. This project helps reduce the carbon footprint for food transportation, prevent food waste, and improve access to fresh, local produce.



Supporting Asmita Vikas Kendra Center for Special Children

Since 2019, the ADAMA Formulation Plant in India has collaborated with Asmita Vikas Kendra hospital by adopting a group of 10 children with special needs and two teachers. We have taken care of their education, residence, nutrition, clothes, medical treatment, and other various needs. Recently, our team renovated the children's classrooms in the hospital facility.



The design was innovative and fun, and suitable for the needs of the children. The classes were inaugurated in a dedicated ceremony along with the local district collector, the judge, and the income tax commissioner, where the community expressed their appreciation for ADAMA's continuous support.

Looking Ahead

- Implement a global volunteering framework to ensure each ADAMA employee volunteers at least once a year by 2030.
- Short-term KPI: 50% - 70% employee participation in volunteer activities.
- 3-year plan: Build a community program in 10-15 of our biggest countries/production sites.
- New impact measurement and evaluation methodology.



Our Governance and Ethics



OUR CORPORATE GOVERNANCE

Strong corporate governance, based on the principles of professionalism, leadership, accountability, and transparency, is an integral part of our core values. We regard it as a critical aspect of our sustainable growth and value creation. To uphold the principles of corporate governance, we have adopted a Code of Conduct, among many other initiatives, which applies to all our people and stakeholders and is strengthened by various internal programs.

Following the combining of ADAMA Agricultural Solutions Ltd. (“ADAMA Solutions”) and Hubei Sanonda Co. Ltd., a listed entity traded on the Shenzhen Stock Exchange in 2017, the latter was renamed ADAMA Ltd., with one global management leading both companies - the ADAMA Group.

As of June 2020, ADAMA Group is a distinctive member of Syngenta Group, a world leader in agricultural inputs, spanning crop protection, seeds, fertilizers, additional agricultural and digital technologies, as well as an advanced distribution network in China (“Syngenta Group”). As of August 2021, following the combination between ChemChina and Sinochem, two large economic conglomerates and State-Owned Enterprises with extensive operations in China and around the world, Syngenta Group, and subsequently the ADAMA Group, are ultimately controlled by Sinochem Holdings. ADAMA Solutions continues to be headquartered in Israel, and ADAMA Ltd. continues to be traded on the Shenzhen Stock Exchange, while we at ADAMA maintain our own unique brand and positioning.



Our Corporate Officers*



Steve Hawkins
President and CEO



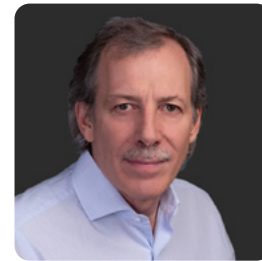
David Peters
SVP Asia Pacific



Romeu Stanguerlin
SVP LATAM



An Liru
SVP China



Sergio Dedominici Paz
SVP Europe, Africa
& Middle East



Jake Brodsgaard
SVP North America



Elad Shabtai
EVP Global Operations



Yoav Avidor
VP Innovation,
Development, Research
and Regulatory Affairs



Walter Costa
VP Marketing
and Product Strategy



Rob Williams
VP Strategy, Business
Intelligence & Corporate
Communications



Efrat Nagar
EVP CFO



Mody Benaiah
EVP People



Naama Peleg
General Legal Counsel
& Company Secretary



Juan Valero
Chief Sustainability
Officer

* Accurate as of May 2023

Board of Directors

Member of the Board	Description	BoD ADAMA Ltd	BoD ADAMA Solutions
Erik Fyrwald	Mr. Fyrwald, age 64, serves as Chairman of the Board of Directors of ADAMA Ltd. and as a Director of ADAMA Solutions. He also serves as CEO of Syngenta Group, CEO and Executive Director of Syngenta AG, and Chairman of the Syngenta Foundation for Sustainable Agriculture. He currently also serves on the board of directors of CropLife International, the Swiss American Chamber of Commerce, and the listed entities Bunge Limited and Eli Lilly & Company. Mr. Fyrwald holds a B.Sc. in chemical engineering from the University of Delaware and completed the Advanced Management Program at Harvard Business School.	Chairman of the Board of Directors	Director
Steve Hawkins	Mr. Hawkins, age 56, has been appointed as the President and CEO of both ADAMA Ltd. and ADAMA Solutions, as well as the Chairman of the Board of Directors of ADAMA Solutions as of May 2023, replacing Mr. Ignacio Dominguez who stepped-down from these positions. Mr. Hawkins holds a Diploma in Agriculture and an MBA in Agriculture and Food, both from the Ontario Agricultural College at the University of Guelph in Ontario, Canada and has a bachelor's degree in Administrative Studies from Toronto's York University.	President and CEO	President and CEO, and Chairman of the Board of Directors
Chen Lichtenstein	Mr. Lichtenstein, age 55, serves as a Director of both ADAMA Ltd. and ADAMA Solutions, and also serves as the CFO of Syngenta Group Co., Ltd. and its wholly owned subsidiary - Syngenta AG. He holds joint doctoral degrees from Stanford University's Graduate School of Business and School of Law, and a B.Sc. (physics) and LL.B. from the Hebrew University of Jerusalem.	Director	Director
An Liru	Mr. Liru, age 53, serves as a Director of both ADAMA Ltd. and ADAMA Solutions, and as Senior Vice President, China Cluster. Mr. Liru holds an MBA, an M.Sc. in chemical engineering, and a B.Sc. in applied chemistry, all from Nanjing University.	Director	Director

Member of the Board	Description	BoD ADAMA Ltd	BoD ADAMA Solutions
Xi Zhen, PhD	<p>Mr. Xi, age 59, serves as an independent director of ADAMA Ltd.. Mr. Xi holds a professor degree and a PhD of Bioorganic Chemistry. Mr. Xi was Assistant Professor in Hubei Medical School, which is currently the Wuhan University School of Medicine, from 1983 to 1985, was an engineer in the Beijing Institute of Chemical Reagents from 1988 to 1990, and was a Research Associate in the Department of Biological Chemistry and Molecular Pharmacology of the Harvard Medical School from 1997 to 2001.</p> <p>Mr. Xi is currently the Cheung Kong Scholar of Pesticide Science of the Ministry of Education of the PRC, Chairman of Department of Chemical Biology, Professor of Chemistry and Chemical Biology, and Fellow of the University Committee of Nankai University in China, and Director of the National Pesticide Engineering Research Center (Tianjin). Mr. Xi is also a Committee Member of the Chinese Chemical Society and Deputy Director of its Division of Chemical Biology, and Deputy Director of the Pesticide Science Division of the Chinese Chemical Industry and Engineering Society. In addition, he is a director of Suzhou Ribo Life Science Co., Ltd.</p>	Independent Director (Member of the Audit Committee, Nomination Committee, Remuneration Committee, and Strategy Committee)	-
Ge Ming	<p>Mr. Ming, age 71, serves as an independent director of ADAMA Ltd. He holds a master's degree in western accounting, and he is a certified public accountant in China as well as Australia. He previously served as the Chairman and Chief Accountant of Ernst & Young Hua Ming Certified Public Accountants Firm, and as the Managing Partner, Chief Accountant and Senior Advisor of Ernst & Young Hua Ming Certified Public Accountants (special general partnership).</p> <p>Mr. Ming currently serves as an independent director on the board of directors of AsialInfo. He currently also serves on the supervisory boards of the Bank of Shanghai, Bank of Suzhou, Tencent Foundation, and serves as the Executive Director and General Manager of Beijing Huaming Fulong Accounting Consulting Co., Ltd.</p>	Independent Director (Member of the Audit Committee, Nomination Committee, Remuneration Committee, and Strategy Committee)	-

Member of the Board	Description	BoD ADAMA Ltd	BoD ADAMA Solutions
Dalit Braun	<p>Ms. Braun, age 57, is the founder and partner of Realya USA, a business development and economics advisor for Israel Airports Authority, and the founder and former CEO of Pick'nTell. She has an MBA from Tel Aviv University, an LLM in European business law from Anglia Ruskin University in the UK, and a B.Sc. in industrial engineering and management from the Technion, Israel Institute of Technology.</p> <p>Ms. Braun formerly served as an External Director of NTA, a governmental mass transit company, and formerly served as an External Director of "Dira LeHaskir" (an Israeli government company).</p>	–	External Director (Chairperson of the Audit Committee and the Remuneration Committee; member of the Financial Statements Review Committee)
Gustavo Traiber	<p>Mr. Traiber, age 62, is the owner and CEO of Spain-Israel Investments Ltd. and the former CEO of a public company in the field of solar energy. He has extensive experience in the strategic and marketing aspects of business development, having held previous director and senior management roles. He has an MBA with a finance concentration from Reichman University (IDC), Herzliya, and a BA in political science and international relations from the Hebrew University in Jerusalem.</p> <p>Mr. Traiber concurrently serves as an independent director of Cellcom Israel Ltd., an Israeli public company.</p>	–	External Director (Chairperson of the Financial Statements Review Committee; member of the Audit Committee and the Remuneration Committee)
Jiashu Cheng	<p>Mr. Cheng, age 70, is an Executive Director of the Stanford Center at Peking University. He was previously the President of the Celanese China Operation.</p> <p>Mr. Cheng has Master's degrees in Economics and in Economic Development, both from Stanford University, and Major in planning and statistics from the Department of Economics, Hebei University.</p>	–	Independent Director (Member of the Financial Statements Review Committee, the Audit Committee and the Remuneration Committee)

Committees of the Board of Directors

To help the Board of Directors effectively and efficiently fulfill its responsibilities, it has established several standing active committees.

Board of Directors' Committees - ADAMA Ltd.

Audit Committee

Responsible for monitoring the company's internal control system, financial information, and its disclosure. The Committee currently consists of three members, two of whom are independent directors.

In 2022, the Committee held five (5) meetings, with a 100% attendance rate.

Nomination Committee

Responsible for formulating standards and procedures and making recommendations regarding the election of candidates for directorship. The Committee currently consists of three members, two of whom are independent directors.

In 2022, the Committee held one (1) meeting with a 100% attendance rate.

Compensation and Appraisal Committee

Responsible for reviewing and formulating recommendations regarding remuneration policies for directors and senior management. The Committee currently consists of three members, two of whom are independent directors.

In 2022, the Committee held two (2) meetings with a 100% attendance rate.



During 2022, ADAMA Ltd. Board of Directors held **10** meetings with a 100% attendance rate

Board of Directors' Committees - ADAMA Solutions

The Audit Committee

Responsible for supervising all ADAMA Solutions' group activities and ensuring that they are conducted in compliance with all legal provisions. The Committee currently consists of three members, all of whom are independent directors and two of whom are external directors.

In 2022, the Committee held six (6) meetings with an 83% attendance rate.

The Financial Statements Review Committee

Responsible for discussing and formulating recommendations to the board of directors regarding financial statements. The Committee currently consists of three members, all of whom are independent directors and two of whom are external directors.

In 2022, four (4) meetings of the Committee were held with a 100% attendance rate.

The Remuneration Committee

Responsible for approving and formulating recommendations regarding the remuneration of officers, based on the adopted governing remuneration policy. The Committee currently consists of three members, all of whom are independent directors and two of whom are external directors.

In 2022, six (6) meetings of the Committee were held with an 83% attendance rate.



During 2022, ADAMA Solutions' Board of Directors held **6** meetings with an 83% attendance rate

Remuneration of Directors and Senior Management

Remuneration of ADAMA's officers and additional senior members of management is decided by the authorized organs of ADAMA, according to the Remuneration Policy as was approved and updated from time to time by such organs (e.g. the Board of Directors and/or a designated Board committee / the Shareholder, as relevant).

ADAMA's Remuneration Policy is based, among others, on the following main principles: promotion of ADAMA's objectives, work plan and goals, taking into account the risks that accompany ADAMA's operations; adjustment of the compensation mix package to the size and character of ADAMA and the scope of its operations; and creation of appropriate incentives for officers by means of rewarding entitled persons according to their functions, areas of responsibility, efforts and contribution to the development of ADAMA's business and promotion of its goals, and increasing its profits in the short and long term. While approving remuneration, global professional benchmarks, performance indicators and the performance of the respective person are taken into account.

The terms of officers' remuneration are based on three main components: Base Salary component; Variable component (medium and short-term incentives which include annual bonuses based on results and contingent upon targets and/or on the contribution to ADAMA) and Long-Term Incentive. Independent directors are entitled to receive annual allowance according to the law, and do not receive salary, while non-independent directors (other than those who also hold management positions in ADAMA) may receive a monthly remuneration.

Risk Management

ADAMA Solutions utilizes a comprehensive risk management methodology that is designed to optimize financial returns for its stakeholders regardless of unavoidable risks and uncertainties in the business environment. This methodology includes a periodic risk assessment survey that maps the key activity areas and processes in which there is risk exposure, such as strategic, operational, legal, financial and regulatory risks. ADAMA Solutions conducts an in-depth analysis of the residual risk level for all risks and prepares a multi-year work plan for internal auditing based on its results.

In addition to the risk assessment survey, we carry out periodic fraud risk assessments aimed at assessing the overall fraud risk level by evaluating and identifying weaknesses in the work and control processes, which could be exploited for fraudulent or improper activities.

To increase visibility of risk and to assist in management decision making, risks in both the risk assessment survey and fraud risk assessment are mapped and evaluated according to their residual risk based on their inherent risk and the in-place internal controls framework. The categories are each defined by five levels ranging from very low to very high.

The Board of Directors has overall responsibility for establishing and monitoring the framework of the risk management policy. The Chief Financial Officer reports on a regular basis regarding these risks.



UPHOLDING ETHICAL BEHAVIOR

At ADAMA, we continually strive to be a socially responsible and trusted Company that is driven by the highest ethical standards and legal compliance in all our business practices. We view compliance as an essential part of our long-term success.

We do not tolerate any violation of the law, our Code of Conduct, or internal regulations.

Our businesses are managed responsibly and in compliance with the statutory and regulatory requirements of local countries. We established an ethics committee to examine and review resolution of various ethical issues in a consistent manner, with two senior management members participating and reporting to the management, in 2022.

In 2022, Michal Arlosoroff served as Executive Vice President, General Legal Counsel, Company Secretary and Chief Sustainability & Communication Officer, and handled ethics related issues in a professional and confidential manner and reported regularly to management on the Company's ethical performance. Processes which she established as Ethics Officer have made it straightforward for our people to seek advice or counseling regarding any ethical question, dilemma, or complaint in an anonymous and/or confidential manner, ensuring that all queries are handled properly. As of January 2023, Naama Peleg, serving as ADAMA's General Legal Counsel, as of January 1, 2023, has also taken the role of Ethics Officer.



SpeakUp - Reporting Concerns

ADAMA operates a global confidential reporting system available 24/7 to all employees and suppliers/service providers. It is operated by an independent service provider based in the Netherlands.

ADAMA recognizes that sometimes issues are too sensitive to report directly and therefore we encourage the confidential or anonymous reporting of concerns about ethical issues or breaches of applicable law relating to the Company and its activities.

The SpeakUp service is a confidential toll-free call or e-mail reporting system. SpeakUp is available in countries where ADAMA operates, and being web based is not dependent upon location. It is available in 27 languages - all our employees' native languages. The system is also available for non-employees, such as service providers, who may wish to raise ethical concerns; for this population, access to SpeakUp is publicized via our ADAMA website and Suppliers Code of Conduct.

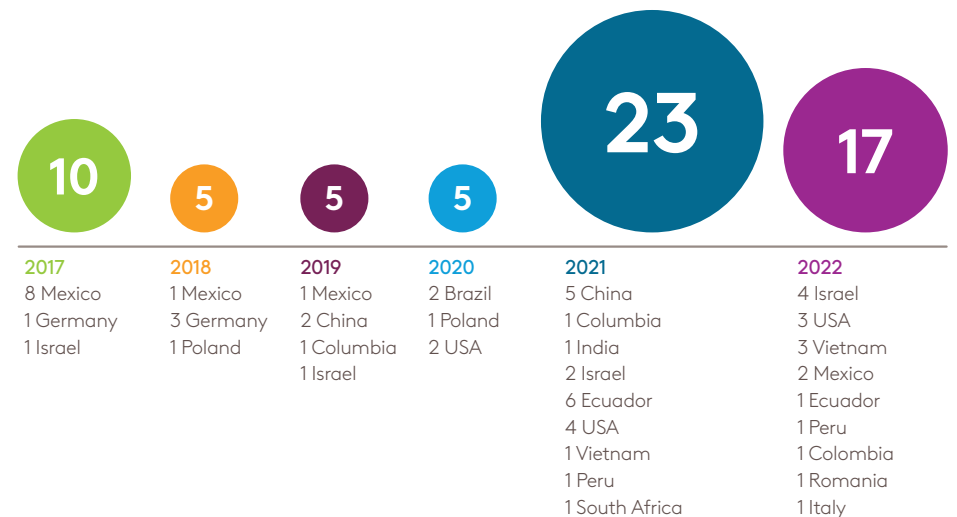
The reports are recorded by an independent, external third party, translated if needed, and forwarded to the General Legal Counsel and a member of the ADAMA legal team, for confidential investigation. The person reporting (the "messenger") receives a reference number confirming the receipt of the report so that they can call back or log in to receive feedback or provide further information. Depending on the nature of the complaint, a senior person is appointed to investigate and resolve it with appropriate action.

The investigation and proposed resolution are followed by senior members of the organization (Ethics Committee, GLC, Global HR Business Partner, and their nominees per investigation). The investigating officer can communicate with the messenger using the system irrespective of language, since SpeakUp has a built-in translation service.

In addition, the company uses a case management system (CMS), added in 2022, which supports case management of any ethical complaints received by the company, whether they are filed via SpeakUp or directly to other management team members.

We encourage employees to speak up! All HR representatives have been trained in the service and are required to bring SpeakUp to the attention of their employees and in particular to new joiners. Promotional posters are located in office locations. Our intranet has a Compliance Corner where SpeakUp is highly visible to all employees. Also, an annual report is published on the internal messaging service of the Company and in the ESG Report. In 2022, relative stability was maintained in the total number of complaints compared to 2021, alongside increasing awareness among our people. In 2022 there were 17 cases reported to SpeakUp, compared to 23 cases in 2021.

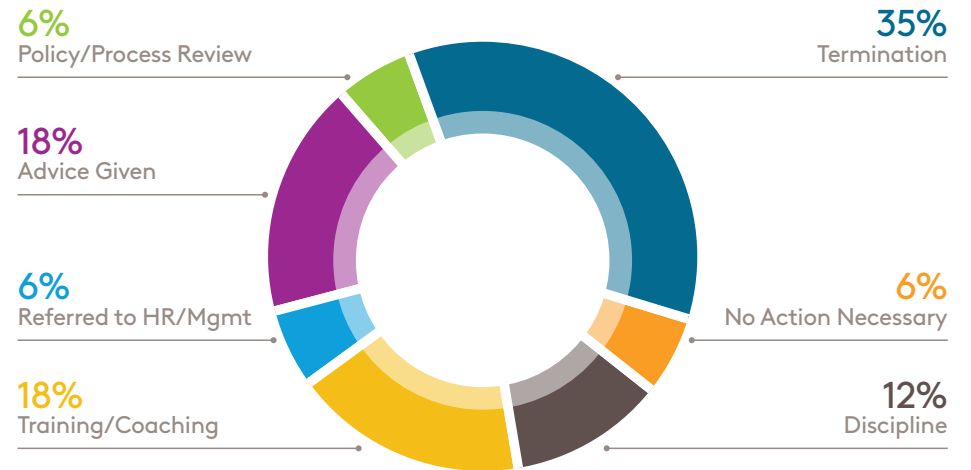
ADAMA's Code of Conduct makes it clear that any reporting of issues must be treated confidentially, and the messenger's wishes respected and properly dealt with without fear of recrimination or retaliation.



Cases by Misconduct Category



Actions Taken



The complaints in 2022 were on various topics. Most of the complaints (45%) dealt with discrimination or harassment.

We will continue to encourage our employees to submit complaints about any concerns that may arise, small as they may be, and we will continue to deepen the examination process and internal investigation of these complaints.

Besides SpeakUp, compliance incidents or queries that come through managerial levels are reported directly to General Counsel or senior managers.

Code of Conduct

Our [Code of Conduct](#) is the blueprint by which we ensure ethical practices and integrity. In the Code, we outline our commitment to our people and stakeholders and communicate our expectations of them. It encompasses our corporate culture, community relations, and the components of appropriate behavior.



88% of our people completed the CoC yearly training

Zero Tolerance for Bribery and Corruption

ADAMA has zero tolerance for, and is committed to preventing, bribery and corruption. We are committed to full compliance with all applicable laws, regulations, and contract requirements relating to the fight against bribery and corruption.

Our Code of Conduct strictly prohibits offering, giving, or receiving bribes, either directly or through a third party. Entering business relationships with an individual or entity which has a history of engagement with bribery is forbidden. We share, implement, supervise, and enforce our anti-bribery and anti-corruption principles with all our people.

Our policy is to require all relevant employees to complete online anti-bribery training on an annual basis. Where necessary, the online training is provided in the local language.

Corporate Compliance training is an annual requirement for performance review and part of onboarding for new employees. The mandatory compliance e-learning trainings include the Code of Conduct, Anti-Bribery, and Competition Law.

Anti-Trust and Competition Law Training

In 2022, we successfully deployed the first Syngenta Group competition e-learning training program across all Syngenta Group business units as part of our commitment to ESG initiatives. The e-learning training was launched on a global scale throughout ADAMA and is accessible to all employees in their local languages. The training program focused on competition law, aiming to enhance our understanding and identification of areas within our business where we may encounter competition or anti-trust issues.

Furthermore, face to face anti-trust trainings were conducted across Europe (in local languages) including Legal, Global Marketing, and Product Strategy departments (those with connections to customers or competitors) to assist employees in making ethically sound decisions when faced with challenging scenarios involving competition or anti-trust matters. By equipping our employees with the knowledge and resources necessary to navigate competition and anti-trust issues, we are actively promoting fair competition and strengthening our commitment to responsible business practices. In addition, in September 2022 the Guide to EU Competition Law policy was finalized and circulated to all those who have contact with competitors and customers and for day-to-day business to help them understand the rules and to ensure that employees comply with all applicable competition and anti-trust laws.



83% employees completed the Anti-Trust and Competition e-learning

No Political Donations

We do not use funds or corporate resources to support any political candidate or party. We recognize the rights of our employees to participate in the political process, provided they act independently of ADAMA and do not use ADAMA time, property, or equipment in the process.

Data Privacy

ADAMA's Global Information Security Policy emphasizes the critical role our business plays in protecting the personal data of our people as well as our stakeholders, and putting in place preventive security measures to avoid data breaches. We control and supervise access to personal information, balancing the interests and privacy rights of individuals with those of our business interests and assets, in full compliance with GDPR, LGPD, POPIA, and other regulations. We have hardened our information technology environment using cutting edge cybersecurity tools and systems. All new systems that necessitate access to our data are required to undergo vetting by our cybersecurity compliance and intelligence team. We annually audit and check our third-party solutions for continued data privacy and cybersecurity compliance. We have deployed multi-factor authentication for all users (employees, contractors, etc.) who require access to our data. We leverage our cybersecurity intelligence systems to better understand what vulnerabilities our IT environment and data are susceptible to, to enhance our enterprise's defenses. We have deployed incident response procedures and escalation processes to be ready for any potential incident. We also test our environment and the procedures we have created.



In 2022, we successfully obtained our ISO27001 certification.

Data Privacy Training

All new joiners are required to complete the online data privacy training module. The module, which is available in eight of our people's native languages, covers the scope of data protection and data privacy laws, personal data processing, employee responsibilities, data breach management, data security, and more. All new employees are required to complete the training as part of their onboarding at ADAMA.





ADAMA

Annex



ABOUT THIS REPORT

We are pleased to present this ESG report that presents our main activities and achievements in promoting sustainability during 2022.

This report and data cited throughout the report was issued with reference to the Global Reporting Initiative (GRI) standards for the period from January 1, 2022 to December 31, 2022. We also report according to the Sustainability Accounting Standards Board (SASB) Index and provide a description of how we contribute to the United Nations' Sustainable Development Goals (SDGs).

The disclosures and performance data in this report address our globally owned and managed facilities and assets for the fiscal year 2022.

The report has been prepared with assistance from external ESG specialists. We have conducted both internal and third-party verification of the validity of the detailed data, and we have reasonable confidence in all published figures and practices. However, as in any document, there may be generalizations, inaccuracies, errors or omissions. All forward-looking Information within this document is based on the company's current estimates/intentions but may not materialize due to various reasons.

In case of any discrepancy between the information in this report and information appearing in the Company's public financial statements, the information in the Company's financial statements is more accurate.

We wish to thank all our people who lead sustainability at ADAMA and to everyone who has been involved with the collection of the information and data shared in this report.

ADAMA intends to continue reporting on our sustainability performance in an ESG format, to provide clear and comparable data, and to actively encourage discussion about how we can improve.

As part of our commitment to open dialogue, we welcome any feedback or comments from our various stakeholders. For any questions or comments, please contact:

Lee Singer Snir

Global Head of ESG

lee.singer@adama.com

DISCLOSURES

Global Reporting Initiative (GRI) Content Index

General Disclosure

GRI 2: General Disclosures 2021		GRI	
1. The organization and its reporting practices	Organizational details	2-1	ADAMA Ltd. is a global leader in crop protection, providing solutions to farmers across the world to combat weeds, insects and disease. ADAMA has one of the widest and most diverse portfolios of active ingredients in the world, state-of-the art R&D, manufacturing and formulation facilities, together with a culture that empowers our people in markets around the world to listen to farmers and ideate from the field. This uniquely positions ADAMA to offer a vast array of distinctive mixtures, formulations and high-quality differentiated products, delivering solutions that meet local farmer and customer needs in over 100 countries globally
	Entities included in the organization's sustainability reporting	2-2	ADAMA LTD., ADAMA Agricultural Solutions Ltd. (a wholly-owned subsidiary of the company), ADAMA Anpon (Jinagsu) Ltd. (a wholly-owned subsidiary of the company)
	Reporting period, frequency and contact point	2-3	2022, Annual reporting, Chief Sustainability Officer: Dr. Juan Valero <Juan.Valero@ADAMA.com>
	External assurance	2-5	KPMG - Independent Limited Assurance Report
2. Activities and workers	Activities, value chain and other business relationships	2-6	See About ADAMA in the Introduction Chapter
	Employees	2-7	See Our People and Communities chapter
	Workers who are not employees	2-8	See Our People and Communities chapter

3. Governance

Governance structure and composition	2-9	See Our Governance & Ethics chapter
Nomination and selection of the highest governance body	2-10	See Our Governance & Ethics chapter
Chair of the highest governance body	2-11	See Our Governance & Ethics chapter
Role of the highest governance body in overseeing the management of impact	2-12	See Our Governance & Ethics chapter
Delegation of responsibility for managing impact	2-13	See Our Governance & Ethics chapter
Role of the highest governance body in sustainability reporting	2-14	The executive board and BOD review and approve the reported information
Conflicts of interest	2-15	See Our Governance & Ethics chapter
Communication of critical concerns	2-16	See Our Governance & Ethics chapter
Collective knowledge of the highest governance body	2-17	See Our Governance & Ethics chapter
Evaluation of the performance of the highest governance body	2-18	See Our Governance & Ethics chapter
Remuneration policies	2-19	See Our Governance & Ethics chapter
Process to determine remuneration	2-20	See Our Governance & Ethics chapter
Annual total compensation ratio	2-21	See Our Governance & Ethics chapter

4. Strategy, policies and practices	Statement on sustainable development strategy	2-22	See Introduction Chapter
	Policy commitments	2-23	See Introduction Chapter
	Embedding policy commitments	2-24	See Introduction Chapter
	Mechanisms for seeking advice and raising concerns	2-26	See Introduction Chapter
	Compliance with laws and regulations	2-27	See Our Governance & Ethics Chapter
	Membership associations	2-28	See Introduction Chapter
5. Stakeholders engagement	Approach to stakeholder engagement	2-29	See Introduction Chapter
	Collective bargaining agreements	2-30	See Our people and Communities chapter
GRI 3: Material Topics 2021		GRI	
	Process to determine material topics	3-1	See Introduction Chapter
	List of material topics	3-2	See Introduction Chapter
	Management of material topics	3-3	In each material subject relevant chapter, there is an explanation of commitment, approach, targets, processes, initiatives, progress monitoring and looking forward

Financial Disclosure - Economic Impact

Direct and indirect economic value generated - in Thousand USD

Data Description	GRI	2020	2021	2022
Direct economic value generated: revenues (total net sales)	201-1	4,127,751	4,813,041	5,569,988
Economic value distributed:				
Total operating costs (including R&D expenses, employee wages and other expenses)	201-1	4,057,924	4,741,003	5,470,168
Total payments to employees including wages and benefits (pension, social security, etc.)	201-1	521,969	560,386	610,612
Total payments to suppliers	201-1	3,150,073	3,409,752	4,449,466
Total amount paid to providers of capital	201-1	9,162	12,349	11,591
Capital expenditure	201-1	214,000	410,655	396,632
Total payments to governments (taxes, etc.) by country	201-1	31,552	59,045	22,163
Total community investments	201-1	2,807	2,599	2,827
Total economic value distributed	201-1	4,101,445	4,814,996	5,506,749

Total sales in Million USD

2020	2021	2022
4,127	4,813	5,570

Sales by product category in Million USD

Product category	2020	2021	2022
Herbicides	1,707	1,972	2,479
Insecticides	1,175	1,425	1,505
Fungicides	857	952	1,048
Non Agro	389	464	538

Sales by regional performance in Million USD

Regions	2020	2021	2022
Europe	1,036	1,072	1,115
North America	776	917	1,027
Latin America	1,088	1,276	1,592
Asia-Pacific	332	385	1,166
<i>of which China</i>	324	513	735
India, Middle East and Africa	572	650	669



Environmental Disclosure

2018 data includes only ADAMA Solutions data. In 2019-20, the data boundary is expanded to also include two large sites in China - Sanonda and Anpon

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Energy (GRI 302-1)									
Total Energy consumption (TJ)	3,344	12,480	10,966	10,516	12,503		Includes Huifeng (2nd semester), Lycored and Chilean production site	Due to regained production at Sanonda and Huifeng. Not including our subsidiaries Lycored and ExperGrow	Our Environmental Sustainability
Energy Intensity (TJ/ \$million revenues)	0.94	3.12	2.66	2.18	2.23	2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues		Our 2022 Revenue - 5,600M USD	Our Environmental Sustainability
Total Direct Energy (TJ)	1,251	7,964	4,908	4,686	5,046			Not including Hydrogen and Biomass (wood)	Our Environmental Sustainability
Coal (TJ)	0	6,735	3,753	3,210	3,838	All coal is derived from the 2 Chinese sites (Sanonda and Anpon). Consumption reduced in 2020 due to closure of a coal-operated power plant			Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Natural Gas (TJ)	675	556	753	1,125	945				Our Environmental Sustainability
Fuel Oil (TJ)	95	87	85	80	80				Our Environmental Sustainability
Diesel (TJ)	112	39	34	40	47				Our Environmental Sustainability
LPG (TJ)	83	41	37	20	25				Our Environmental Sustainability
Other fossil fuels (TJ)	286	506	246	127	112		Not including Hydrogen and Biomass (wood)		Our Environmental Sustainability
Total Indirect Energy (TJ)	2,093	4,516	6,023	5,831	7,385				Our Environmental Sustainability
External Electricity (TJ)	1,248	3,448	4,539	4,082	5,389	Consumption increased in 2020, replacing the electricity previously generated in the closed power plant			Our Environmental Sustainability
External Steam (TJ)	845	1,068	1,485	1,749	1,996	Consumption increased in 2020, replacing the steam previously generated in the closed power plant			Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Renewable Energy Used (TJ)	-	50	34	51	64		Based on energy mix of electricity supplier	Based on energy mix of electricity supplier and internal PV production	Our Environmental Sustainability
Greenhouse Gas emission (GRI 305)									
Scope 1+2 GHG emissions (tonne CO2e)	242,249	1,429,852	1,273,618	1,210,860	1,422,292	2020 data was refined to site specific or state specific	Includes Huifeng (2nd semester), Lycored and Chilean production site	Due to regained production at Sanonda and Huifeng. Not including our subsidiaries Lycored and ExperGrow	Our Environmental Sustainability
GHG Intensity (tonne CO2e/ \$million revenues)	68	358	309	252	254	2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues		Our 2022 Revenue - 5,600M USD	Our Environmental Sustainability
Scope 1 emissions: on-site fuels (tonne CO2e)	93,702	688,557	421,172	413,466	444,707	2020 data was refined to site specific or state specific			Our Environmental Sustainability
Scope 1 emissions: company vehicles (tonne CO2e)	not measured	not measured	11,391	24,287	15,646	2020 data only represents activity from November and onwards, when the company started measuring these emissions			Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Scope 2 emissions: indirect energy (tonne CO2e)	148,547	741,295	852,446	797,393	977,585	2020 data was refined to site specific or state specific			Our Environmental Sustainability
Water (GRI 303)									
Total Water Consumption (m ³)	3,503,711	10,289,074	11,624,389	13,565,073	11,066,527	Increase in 2020 is mostly derived from a change in measurement methodologies, as new digital meters were installed in some ADAMA China facilities	Includes Huifeng (2nd semester), Lycored and Chilean production site	Not including our subsidiaries Lycored and ExperGrow	Our Environmental Sustainability
Water Intensity (m ³ / \$million revenues)	989	2,574	2,816	2,818	1,976	2018 revenues used in calculation represent ADAMA Solutions only, while 2019-20 also include Sanonda and Anpon revenues		Our 2022 Revenue - 5,600M USD	Our Environmental Sustainability
Total Wastewater discharged (m ³)	1,837,594	6,434,057	9,398,207	9,511,529	7,808,500	Increase in 2020 is mostly derived from a change in measurement methodologies, as new digital meters were installed in some ADAMA China facilities			Our Environmental Sustainability
Total Wastewater reclaimed (m ³) (data only represents Makhteshim site)	114,090	282,155	220,690	160,531	71,545			RO systems shutdown due to upgrade	Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
TOC in effluents (tonne)	212	284	369	682	258			Upgraded wastewater treatment plants in China	Our Environmental Sustainability
COD in effluents (tonne)	636	852	1,107	2,046	775				Our Environmental Sustainability
TSS in effluents (tonne)	94	235	254	234	214				Our Environmental Sustainability
Herbicides discharged (tonne) (data only represents Herbicides released directly to the environment from the Agan site. All other Herbicides in all sites are directed to treatment facilities)	1.20	1.10	0.84	0.799	0.77				Our Environmental Sustainability
Air Emissions (GRI 305-6)									
Particulate matter (tonne)	not measured	not measured	14	28	29		Includes Huifeng (2nd semester), Lycored and Chilean production site	Not including our subsidiaries Lycored and ExperGrow	Our Environmental Sustainability
NOx emissions (tonne)	106	330	131	159	176	The 2020 decrease is due to the shut-down of one coal-based power plant in China, and due to new reduction equipment installed in a second plant			Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
SOx emissions (tonne)	32	178	25	41	60	The 2020 decrease is due to the shut-down of one Coal-based power plant in China, and due to new reduction equipment installed in a second plant			Our Environmental Sustainability
VOC emissions (tonne)	72	82	89	81	99				Our Environmental Sustainability
Solid Wastes (GRI 306)									
Total Hazardous Waste (tonne)	23,429	44,766	121,262	158,735	143,752	The increase in 2020 figures is due to the inclusion of significant by-product streams that were not previously included in ADAMA's hazardous waste figures	Includes Huifeng (2nd semester), Lycored and Chilean production site	Not including our subsidiaries Lycored and ExperGrow	Our Environmental Sustainability
Hazardous waste to landfill/incineration (tonne)	NA	40,827	40,649	49,464	61,230	For 2018: Only Overall waste is available, W/O treatment methods			Our Environmental Sustainability
Hazardous waste to recycling (tonne)	NA	3,939	80,613	109,271	82,522	For 2018: Only Overall waste is available, W/O treatment methods			Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Total Non-Hazardous Waste (tonne)	8,214	108,804	79,256	78,061	37,240	The increase in 2020 figures is due to the inclusion of significant by-product streams that were not previously included in ADAMA's hazardous waste figures		Improving technologies	Our Environmental Sustainability
Non-Hazardous waste to landfill/incineration (tonne)	NA	107,165	72,646	71,049	30,830	For 2018: Only Overall waste is available, W/O treatment methods		Improving technologies	Our Environmental Sustainability
Non-Hazardous waste to recycling (tonne)	NA	1,639	6,611	7,013	6,410	For 2018: Only Overall waste is available, W/O treatment methods			Our Environmental Sustainability
Environmental Management									
Expenditures on Environmental Protection (Million USD)	12	9	19	60	59				Our Environmental Sustainability
Investments on Environmental Protection (Million USD)	49	48	51	54	58				Our Environmental Sustainability
Sites certified to ISO 14001 or to an eqv. Standard (%)	NA	NA	64%	57%	57%	Measured from 2020 onwards	Huifeng and Colombia		Our Environmental Sustainability

Data Description	2018	2019	2020	2021	2022	Comments 2020	Comments 2021	Comments 2022	Relevant Chapter
Environmental Compliance									
Environmental Fines (Million USD)	0	0.1	0	0.01	0.04	2019: two immaterial fines received in China due to short-term exceedance of emission permits for wastewater and air emissions. Both issues have since been resolved		Overdue inspection on pressure pipeline at Huifeng, China	Our Environmental Sustainability
Significant Environmental Incidents	5	3	4	4	2	Following each significant incident, the company investigates the incident causes and circumstances. A corrective action plan is prepared and then implemented			Our Environmental Sustainability

Social Disclosure

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Quality Employment							
Total number of employees on payroll (head count/FTE)	2-8	NA	7,759	7,505	9,162	9,208	Our People and Communities
> Women	2-8	NA	1,825	1,800	2,236	2,292	Our People and Communities
> Men	2-8	NA	5,934	5,705	6,926	6,916	Our People and Communities
Total number of full-time employees (head count/FTE)	2-8	NA	7,719	7,562	9,145	9,187	Our People and Communities
> Women	2-8	NA	1,793	1,800	2,222	2,278	Our People and Communities
> Men	2-8	NA	5,926	5,676	6,923	6,909	Our People and Communities
Total number of part-time employees (head count/FTE)	2-8	NA	40	29	17	21	Our People and Communities
> Women	2-8	NA	32	22	14	14	Our People and Communities
> Men	2-8	NA	8	7	3	7	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Employee category							
Manufacturing	2-7	3,221	3,034	2,817	3,871	3,787	Our People and Communities
R&D	2-7	238	264	243	250	262	Our People and Communities
Sales & Registration	2-7	1,716	1,835	1,739	1,939	1,935	Our People and Communities
Management & Administration	2-7	568	485	469	500	539	Our People and Communities
Other	2-7	1,932	2,141	2,237	2,602	2,685	Our People and Communities
Total	2-7	7,675	7,759	7,505	9,162	9,208	Our People and Communities
Diversity and Equal Opportunity							
Total employees senior managers	405-1	127	131	129	125	118	Our People and Communities
Total employees middle managers	405-1	523	621	678	810	793	Our People and Communities
Total employees non-managers	405-1	7,004	6,986	6,660	8,207	8,278	Our People and Communities
Total top management	405-1	21	21	19	20	19	Our People and Communities
Women top management	405-1	2	2	2	2	2	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Women senior managers	405-1	21	24	25	25	26	Our People and Communities
Women middle managers	405-1	140	161	176	212	194	Our People and Communities
Women non-managers	405-1	1,588	1,638	1,597	1,997	2,070	Our People and Communities
Men top management	405-1	19	19	17	18	17	Our People and Communities
Men senior managers	405-1	106	107	105	100	92	Our People and Communities
Men middle managers	405-1	383	460	508	598	599	Our People and Communities
Men non-managers	405-1	5,416	5,348	5,075	6,210	6,208	Our People and Communities
% Women in workforce	405-1		23.5%	24.0%	24.4%	24.9%	Our People and Communities
% Women in management roles	405-1	24.3%	24.2%	24.6%	25%	23.9%	Our People and Communities
% Women in senior management roles	405-1	16.5%	18.3%	19.4%	20%	22%	Our People and Communities
Total top managers - under age 30	405-1	0	0	0	0	0	Our People and Communities
Total top managers - age 30-50	405-1	5	4	2	2	2	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Total top managers age - age 50 and up	405-1	16	18	17	18	17	Our People and Communities
Total senior managers - under age 30	405-1	0	0	0	0	0	Our People and Communities
Total senior managers - age 30-50	405-1	54	55	49	43	37	Our People and Communities
Total senior managers age - age 50 and up	405-1	73	76	80	81	81	Our People and Communities
Total middle managers - under age 30	405-1	8	7	4	4	2	Our People and Communities
Total middle managers - age 30-50	405-1	378	446	460	526	532	Our People and Communities
Total middle managers - age 50 and up	405-1	135	166	214	279	259	Our People and Communities
Total non-managers - under age 30	405-1	995	833	603	591	647	Our People and Communities
Total non-managers age 30-50	405-1	4,554	4,540	4,447	5,172	5,170	Our People and Communities
Total non-managers - age 50 and up	405-1	1,447	1,602	1,610	2,444	2,461	Our People and Communities
Total employees - under age 30	405-1	1,003	840	607	595	649	Our People and Communities
Total employees age 30-50	405-1	4,991	5,045	4,958	5,743	5,741	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Total employees - age 50 and up	405-1	1,671	1,862	1,921	2,824	2,818	Our People and Communities
% employees over 50 in workforce	405-1	NA	24.0%	25.6%	30.8%	30.6%	Our People and Communities
% employees over 50 in management roles	405-1	NA	33.6%	37.7%	39.6%	38.4%	Our People and Communities
Number of employees covered by collective bargaining agreements	407	NA	NA	1,576 (21%)	1,532 (16%)	1,513 (16.4%)	Our People and Communities
Women	407	NA	NA	NA	3%	3.3%	Our People and Communities
Male	407	NA	NA	NA	13%	13.1%	Our People and Communities
New employee hires and employee turnover							
Total number and rate of new employee hires by age group and gender							
Women <30	401-1	NA	NA	NA	97	110	Our People and Communities
Women 30-50	401-1	NA	NA	NA	525	298	Our People and Communities
Women >50	401-1	NA	NA	NA	66	26	Our People and Communities
Men <30	401-1	NA	NA	NA	256	217	Our People and Communities
Men 30-50	401-1	NA	NA	NA	1,098	583	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Men >50	401-1	NA	NA	NA	747	78	Our People and Communities
Total new hires <30	401-1	NA	NA	NA	353	327	Our People and Communities
Total new hires 30-50	401-1	NA	NA	NA	1,623	881	Our People and Communities
Total new hires >50 Including New Company ADAMA Huifeng & ADAMA Dibai	401-1	NA	NA	NA	813	104	Our People and Communities
Total new hires	401-1	742 (100 managers)	944 (112 managers)	719 (65 managers) * Due to reorganization and relocation in China	2,808 (191 managers)	1,312 (79 managers)	Our People and Communities
Total number and rate of employee turnover by age group and gender							
Women <30	401-1	NA	NA	NA	24	34	Our People and Communities
Women 30-50	401-1	NA	NA	NA	165	250	Our People and Communities
Women >50	401-1	NA	NA	NA	68	88	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Men <30	401-1	NA	NA	NA	81	94	Our People and Communities
Men 30-50	401-1	NA	NA	NA	478	504	Our People and Communities
Men >50	401-1	NA	NA	NA	333	296	Our People and Communities
Total leavers <30	401-1	NA	NA	NA	105	128	Our People and Communities
Total leavers 30-50	401-1	NA	NA	NA	643	754	Our People and Communities
Total leavers >50	401-1	NA	NA	NA	401	384	Our People and Communities
Total leavers	401-1	595	866	870 * Due to reorganization and relocation in China	1,149 (135 managers)	1,266 (169 managers)	Our People and Communities
Total rate of employee turnover	401-2	8.69%	12.18%	12.80%	13.70%	13.30%	Our People and Communities
Open positions filled by internal candidates		NA	NA	25%	35%	31%	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Pay gap							
Ratio of basic salary and remuneration of women to men in USD, by level							
Top Management	405-2	113%	113%	109%	112%	108%	Our People and Communities
Senior Management	405-2	110%	109%	105%	114%	119%	Our People and Communities
Middle Management	405-2	103%	100%	97%	93%	95%	Our People and Communities
Non-management employees	405-2	79%	77%	76%	72%	75%	Our People and Communities
Training and Education							
Training hours for women senior managers	404-1	NA	NA	NA	NA	~6,890 hours in formal training and leadership development programs + ~270 hours of additional training	Our People and Communities
Training hours for women middle managers	404-1	NA	NA	NA	NA	540 hours in formal training and leadership development programs + ~1,950 hours of additional training	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Training hours for women non-managers	404-1	NA	NA	NA	NA	~19,600 hours	Our People and Communities
Total number for training hours for women	404-1	NA	NA	NA	NA	~29,250 hours	Our People and Communities
Training hours for men senior managers	404-1	NA	NA	NA	NA	~19,000 hours in formal training and leadership development programs + ~1,010 hours of additional training	Our People and Communities
Training hours for men middle managers	404-1	NA	NA	NA	NA	720 hours in formal training and leadership development programs + ~6,000 hours of additional training	Our People and Communities
Training hours for men non-managers	404-1	NA	NA	NA	NA	~57,030 hours	Our People and Communities
Total number of training hours for men	404-1	NA	NA	NA	NA	~83,760 hours	Our People and Communities
Total number of training hours for all employees	404-1	NA	NA	NA	NA	~11,3010	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Average hours of training per year per employee by gender							
Average training hours per employee	404-1	NA	NA	NA	NA	12.3 hours	Our People and Communities
Average training hours per woman	404-1	NA	NA	NA	NA	12.8 hours	Our People and Communities
Average training hours per man	404-1	NA	NA	NA	NA	12.1 hours	Our People and Communities
Programs for upgrading employee skills and transition assistance programs	404-2	NA	NA	NA	NA	7-10 hours	Our People and Communities
Percentage of employees receiving regular performance and career development reviews by gender							
Percentage of women receiving performance and career development reviews	404-3	NA	NA	NA	NA	98%	Our People and Communities
Percentage of men receiving performance and career development reviews	404-3	NA	NA	NA	NA	98%	Our People and Communities
Percentage of employees who received a regular performance and career development review during the reporting period.	404-3	NA	NA	NA	95%	98%	Our People and Communities
Occupational Health and Safety							
Workers covered by an occupational health and safety management system	403-8					All employees. Also contracting companies report to us regarding compliance with the standard	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Work-related injuries							
The number of fatalities as a result of work-related injury	403-9	NA	NA	NA	0	0	Our People and Communities
The rate of fatalities as a result of work-related injury	403-9	NA	NA	NA	0	0	Our People and Communities
The number and rate of high-consequence work-related injuries (excluding fatalities)	403-9	NA	NA	NA	3 Finger amputations and hip fractures	4 1 exposure to hazardous chemical. 3 injuries of fingertip amputation	Our People and Communities
The number of recordable work-related injuries	403-9	NA	NA	40	49	74	Our People and Communities
The rate of recordable work-related injuries	403-9	NA	NA	0.58	0.46	0.67	Our People and Communities
Total number of hours worked	403-9	NA	NA	31,356,283	50,828,962	54,850,815	Our People and Communities
Total number of days missed		NA	NA	874	1,744	1,100	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Main work-related hazards that pose a risk of high-consequence injury	403-9	NA	NA	NA	Although we are part of the chemical industry and there are chemical risks, out of the 49 injuries only 8 were related to exposure to hazardous chemicals. They all amounted to a minor injury	1 injury of exposure to hazardous chemical classified as high. And 3 injuries of fingertip amputation classified as high	Our People and Communities
Work-related ill health							
The number of fatalities as a result of work-related ill health	402-10	NA	NA	NA	0	0	Our People and Communities
The number of cases of recordable work-related ill health	402-10	NA	NA	0	0	0	Our People and Communities
The main types of work-related ill health	402-10	NA	NA	NA	0	NA	Our People and Communities
Work-related hazards that pose a risk of ill health	402-10	NA	NA	NA	0	NA	Our People and Communities
Sites certified to ISO 45001 or to an eqv. standard	402-10	NA	NA	56%	43%	43%	Our People and Communities
Sites certified to ISO 18001 or to an eqv. standard	402-10	NA	NA	NA	60%	75%	Our People and Communities

Data Description	GRI	2018	2019	2020	2021	2022	Relevant Chapter
Local communities							
Community donations (in USD, thousand)	413-1	NA	NA	2,807	2,599	2,800	Our People and Communities
Donation per pre-tax profits	413-1	NA	NA	2.70%	2.80%	9.6%	Our People and Communities
% of workforce participating in volunteering *	413-1	NA	NA	20%	18.5%	24%	Our People and Communities
Total number of hours employees volunteered *	413-1	NA	NA	1,300	2,777	2,788	Our People and Communities

* Volunteering figures measured only in Israel. Work in progress designing a global tool for reliable data collection.

Governance Disclosure

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Compliance								
Confirmed incidents of corruption and actions taken								
Total number and nature of confirmed incidents of corruption	205-3	NA	NA	0	2	0		Our Governance & Ethics
Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	205-3	NA	NA	0	2	0		Our Governance & Ethics
Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	205-3	NA	NA	0	0	0		Our Governance & Ethics
Public legal cases regarding corruption brought against the organization or its employees during the reporting period and the outcomes of such cases.	205-3	NA	NA	0	0	0		Our Governance & Ethics
Operations assessed for risks related to corruption								
Total number of Operations assessed for risks related to corruption	205-1	NA	NA	0	2	0		Our Governance & Ethics

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Percentage of Operations assessed for risks related to corruption	205-1	NA	NA	0	2	0		Our Governance & Ethics
Significant risks related to corruption identified through the risk assessment	205-1	NA	NA	NA	NA	0		Our Governance & Ethics
Anti-competitive behavior								
Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	206-1	NA	NA	0	0	0		Our Governance & Ethics
Main outcomes of completed legal actions (regarding anti-competitive behavior and violations of anti-trust and monopoly legislation), including any decisions or judgements	206-1	NA	NA	0	0	0		Our Governance & Ethics
Total number of incidents of non-compliance with regulations and/or voluntary codes concerning marketing communications (including advertising, promotion, and sponsorship), classified by their result: fine or warning.	206-2	NA	NA	0	0	0		Our Governance & Ethics
Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services	416-2	NA	NA	0	1	0		Our Governance & Ethics

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Substantiated complaints concerning breaches of customer privacy and losses of customer data	416-2	NA	NA	0	0	0		Our Governance & Ethics
Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area	416-2	NA	NA	0	0	0		Our Governance & Ethics
Ethics								
Communication and training about anti-corruption policies and procedures								
Total number and percentage of employees that the organization's anti-corruption policies and procedures have been communicated to	205-2	NA	NA	The policies are available on the ADAMA ZONE under compliance - all employees have access when needed. All new joiners are provided with the Code of Conduct and asked to complete the mandatory e-learning compliance courses including anti-bribery				Our Governance & Ethics
Total number and percentage of employees that received training on CoC, by level:	205-2	NA	80%	92%	87%	88%		Our Governance & Ethics
Complaints reported to speakup hotline	205-2	NA	NA	5	23	17		Our Governance & Ethics
Percentage of complaints regarding suspicion of bribery/corruption	205-2	NA	40%	0%	10%	0%		Our Governance & Ethics

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Percentage of complaints regarding HR issues	205-2	NA	20%	20%	20%	0%		Our Governance & Ethics
Percentage of complaints regarding product compliance	205-2	NA	20%	0%	0%	0%	No cases were reported via speakup regarding product compliance	Our Governance & Ethics
Percentage of complaints regarding other Issues	205-2	NA	NA	80%	70%	100%	Discrimination & Harassment, sexual harassment, conflicts of interest, health & safety & environment, Fraud and other financial compliance issues, Misappropriation of Information	Our Governance & Ethics
Percentage of Employees trained on data privacy	205-2	NA	63%	-	75%	79%		Our Governance & Ethics

Board of Directors - ADAMA Ltd

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Total number of directors	405-1	6	5	5	5	5		Our Governance & Ethics
Number of Non-Executive Directors on Board	405-1	4	4	4	4	4		Our Governance & Ethics
Number of External Directors	405-1	2	2	2	2	2		Our Governance & Ethics
Number of Independent Directors	405-1	2	2	2	2	2		Our Governance & Ethics
Separate Chair and CEO	405-1	Yes	Yes	Yes	Yes	Yes		Our Governance & Ethics
Annual Election of Directors	405-1	6	0	3	5	0	According to Company Law of China, ADAMA Ltd. doesn't need to elect directors annually	Our Governance & Ethics
Average Age of Directors	405-1	56	57	58	59	60		Our Governance & Ethics
Women Directors	405-1	0	0	0	0	0		Our Governance & Ethics
Board meetings held	405-1	11	9	10	10	10		Our Governance & Ethics
Attendance rate - board meetings (%)	405-1	100%	100%	100%	100%	100%		Our Governance & Ethics

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Audit Committee - meetings held	405-1	6	5	5	6	5		Our Governance & Ethics
Audit Committee - attendance rate (%)	405-1	100%	100%	100%	100%	100%		Our Governance & Ethics
Nomination Committee - meetings held	405-1	2	-	5	1	1		Our Governance & Ethics
Nomination Committee - attendance rate (%)	405-1	100%	-	93%	100%	100%		Our Governance & Ethics
Compensation and Appraisal Committee - meetings held	405-1	2	2	3	2	2		Our Governance & Ethics
Compensation and Appraisal Committee - attendance rate (%)	405-1	100%	100%	100%	100%	100%		Our Governance & Ethics
Strategy Committee - meetings held	405-1	0	0	0	0	0		Our Governance & Ethics

Board of Directors - ADAMA Solutions

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Total Number of Directors	405-1	7	7	7	7	7		Our Governance & Ethics
Number of Non-Executive Directors on Board	405-1	5	5	3	3	3		Our Governance & Ethics
Number of External Directors	405-1	2	2	2	2	2		Our Governance & Ethics
Number of Independent Directors	405-1	1	1	1	1	1		Our Governance & Ethics
Separate Chair and CEO	405-1	Yes	Yes	Yes	Yes	No		Our Governance & Ethics
Annual Election of Directors	405-1	No	No	No	No	No	Please note that there is no regulatory nor other need within the AOA for an annual re-election of the board members, whom are being nominated by the sole shareholder. The external directors and independent director, preside for 3-year terms (for a tenure no longer than nine-year period)	Our Governance & Ethics
Average Age of Directors	405-1	58	57	59	60	60		Our Governance & Ethics
Women Directors	405-1	1	1	1	1	1		Our Governance & Ethics

Data Description	GRI	2018	2019	2020	2021	2022	Comments	Relevant Chapter
Board meetings held	405-1	7	7	7	7	6		Our Governance & Ethics
Attendance rate - board meetings (%)	405-1	89%	80%	84%	76%	74%		Our Governance & Ethics
Audit Committee - meetings held	405-1	11	8	13	10	6		Our Governance & Ethics
Audit Committee - attendance rate (%)	405-1	93%	93%	92%	97%	83%		Our Governance & Ethics
Financial Statements Review Committee - meetings held	405-1	4	4	4	4	4		Our Governance & Ethics
Financial Statements Review - attendance rate (%)	405-1	92%	100%	83%	92%	100%		Our Governance & Ethics
Remuneration Committee - meetings held	405-1	3	4	8	5	6		Our Governance & Ethics
Remuneration Committee - attendance rate (%)	405-1	78%	92%	92%	100%	83%		Our Governance & Ethics

Sustainability Accounting Standards Board (SASB) Content Index - Chemicals standard

Topic	Accounting metric	Category	Unit of measure	Code	2022 performance
Sustainability Disclosure Topics & Accounting Metrics					
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tonnes (t) CO ₂ e, Percentage (%)	RT-CH-110a.1	460,353 tonne CO ₂ e
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	RT-CH-110a.2	See Our Environmental Sustainability Chapter. We are increasing electricity efficiency of consumers (motors, lighting, compressors); embedding renewable solar energy; use hydrogen as substitute to fossil fuels; shifting to electrical forklifts and cars; electrifying production facilities; heat conservation. 2030 target: 38% reduction of absolute carbon emissions in scope 1 and 2 (2022 baseline)
Air Quality	Air emissions of the following pollutants: (1) NOX (excluding N ₂ O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Quantitative	Metric tons (t)	RT-CH-120a.1	(1) NOx- 176 tonne (2) SOx- 60 tonne (3) VOCs- 99 tonne (4) HAPs- Not aggregated

Topic	Accounting metric	Category	Unit of measure	Code	2022 performance
Energy Management	1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CH-130a.1	(1) 12,804 TJ (2) 42% (3) 0.5% (4) Not aggregated
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m ³), Percentage (%)	RT-CH-140a.1	(1) Water withdrawn - 11,066,527 cubic meter (2) Water consumed- 11,066,527 cubic meter (3) 25.3%
	Number of incidents of non- compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RT-CH-140a.2	4 (effluents discharge)
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	RT-CH-140a.3	See Our Environmental Sustainability chapter. We are recycling effluent water in regions with high water stress
Hazardous Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	RT-CH-150a.1	(1) 143,752 tonne (2) 57%
Community Relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	Discussion and Analysis	n/a	RT-CH-210a.1	See Our People and Communities chapter.

Topic	Accounting metric	Category	Unit of measure	Code	2022 performance
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	RT-CH-320a.1	TRIR - 0.67 Fatality rate - 0
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and Analysis	n/a	RT-CH-320a.2	See Our People and Communities chapter. We conduct regular measurements to check for abnormality but also to make sure there is no exposure that will lead to chronic diseases
Product Design for Use-phase Efficiency	Revenue from products designed for use phase resource efficiency	Quantitative	Reporting currency	RT-CH-410a.1	Not measured.
Safety & Environmental Stewardship of Chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	Quantitative	Percentage (%) by revenue, Percentage (%)	RT-CH-410b.1	Not measured
	Discussion of strategy to (1) manage chemicals of concern, and (2) develop alternatives with reduced human and/or environmental impact	Discussion and Analysis	n/a	RT-CH-410b.2	Not measured

Topic	Accounting metric	Category	Unit of measure	Code	2022 performance
Genetically Modified Organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Quantitative	Percentage (%) by revenue	RT-CH-410c.1	As far as we are aware, no ADAMA product contains GMOs
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and Analysis	n/a	RT-CH-530a.1	See Our Environmental Sustainability chapter We have an environmental management system, including policies, procedures, targets; adhering to all governmental regulations
Operational Safety, Emergency Preparedness & Response	Process Safety Incident Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Quantitative	Number, Rate	RT-CH-540a.1	We manage and monitor the field based on relevant reports from all sites with a monthly monitoring matrix. See more in Our People and Communities chapter
	Number of transport incidents	Quantitative	Number	RT-CH-540a.2	Total 12 travel accidents. There were no injuries as a result of travel accidents. Damage only

Independent Limited Assurance Report to the users/readers of ADAMA Ltd. 2022 ESG Report



We were engaged by the management of **Adama Ltd.** (further referred to as “Adama” or “the Company”) to provide limited assurance on the specified parts as mentioned in the table below (further referred to as “specified parts”), regarding the information presented on Adama’s 2022 ESG for the year ended 31 December 2022 (further referred to as “the Report”).

It should be noted that the assurance refers to the information and data included in the topics listed in this table, regarding the reporting year, only. The limited assurance was performed regarding the data and information in the specified parts detailed in the table below:

Subject Matter	Units	2022
Quality employment		
Total employees	#	9,208
Women	#	2,292
Men	#	6,916
Total full-time employees (FTEs)	#	9,187
Women	#	2,278
Men	#	6,909
Total part-time employees	#	21
Women	#	14
Men	#	7
Employees covered by collective bargaining agreements	%	16.4
Women	%	3.3

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.



Subject Matter	Units	2022
Men	%	13.1
Employee retention rate	%	87.6
Employee turnover rate	%	13.3
Employees participating in performance review	%	98
New hires by gender and age group		
Women <30	#	110
Women 30-50	#	298
Women >50	#	26
Men <30	#	217
Men 30-50	#	583
Men >50	#	78
Total new hires <30	#	327
Total new hires 30-50	#	881
Total new hires >50	#	104
Total new hires	#	1,312
Leavers by gender and age group		
Women <30	#	34
Women 30-50	#	250
Women >50	#	88
Men <30	#	94
Men 30-50	#	504
Men >50	#	296
Total leavers <30	#	128
Total leavers 30-50	#	754
Total leavers >50	#	384
Total leavers	#	1,266
Employee role distribution		
Manufacturing	#	3,787
R&D	#	262
Sales & Registration	#	1,935

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.



Subject Matter	Units	2022
Management & Administration	#	539
Other	#	2,685
Total	#	9,208
Employee age distribution		
Total employees' senior managers	#	118
Total employees' middle managers	#	793
Total employees' non-managers	#	8,278
Total top management	#	19
Women top management	#	2
Women senior managers	#	26
Women middle managers	#	194
Women non-managers	#	2,070
Men top management	#	17
Men senior managers	#	92
Men middle managers	#	599
Men non-managers	#	6,208
Total top managers - under age 30	#	0
Total top managers - age 30-50	#	2
Total top managers age - age 50 and up	#	17
Total senior managers - under age 30	#	0
Total senior managers - age 30-50	#	37
Total senior managers age - age 50 and up	#	81
Total middle managers - under age 30	#	2
Total middle managers - age 30-50	#	532
Total middle managers - age 50 and up	#	259
Total non-managers - under age 30	#	647
Total non-managers - age 30-50	#	5,170
Total non-managers - age 50 and up	#	2,461
Total employees - under age 30	#	649
Total employees - age 30-50	#	5,741

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.



Subject Matter	Units	2022
Total employees - age 50 and up	#	2,818
Total employees over 50 in workforce	%	30.6
Total employees over 50 in management roles	%	38.4
Diversity and gender equality		
Gender Salary Ratio- non-management employees	%	75
Gender Salary Ratio- middle management	%	95
Gender Salary Ratio- senior management	%	119
Gender Salary Ratio- top management	%	108
Community engagement		
Community donations	thousand USD	2,800
Donation per pre-tax profits	%	9.6
Workforce participating in volunteering (Adama Israel only)	%	24
Hours of employee volunteering (Adama Israel only)	hours	2,788
Board of Directors – ADAMA Ltd		
Total number of directors	#	5
Number of non-executive directors on Board	#	4
Number of external directors	#	2
Number of Independent directors	#	2
Separate Chair and CEO	claim	yes
Annual election of directors	#	no
Average age of directors	#	60
Women directors	#	0
Board meeting held	#	10
Attendance rate- general board meetings	%	100
Audit Committee - meetings held	#	5
Audit Committee - attendance rate	%	100
Nomination Committee - meetings held	#	1
Nomination Committee - attendance rate	%	100
Remuneration Committee - meetings held	#	2
Compensation and Appraisal Committee - attendance rate	%	100

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.



Subject Matter	Units	2022
Board of Directors – ADAMA Solutions		
Total number of directors	#	7
Number of non-executive directors on Board	#	3
Number of external directors	#	2
Number of independent directors	#	1
Separate Chair and CEO	claim	no
Annual election of directors	claim	no
Average age of directors	#	60
Women directors	#	1
Board meeting held	#	6
Attendance rate- general board meetings	%	74
Audit Committee - meetings held	#	6
Audit Committee - attendance rate	%	83
Financial Statements Review Committee - meetings held	#	4
Financial Statements Review - attendance rate	%	100
Remuneration Committee - meetings held	#	6
Remuneration Committee - attendance rate	%	83
Economic value shared		
Direct economic value generated: revenues (total net sales)	thousand USD	5,569,988
Total operating costs	thousand USD	5,470,168
Total payments to employees	thousand USD	610,612
Total payments to suppliers	thousand USD	4,449,466
Payments to governments (taxes)	thousand USD	22,163
Total amount paid to providers of capital	thousand USD	11,591
Capital expenditure	thousand USD	396,632
Total community investments	thousand USD	2,827
Total economic value distributed	thousand USD	5,506,749
Health and safety		
Sites certified to ISO 45001 or to an eqv. standard	%	43
Adama's HSE policy	existence	

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.



Subject Matter	Units	2022
Environmental management		
Sites certified to ISO 14001 or to an eqv. standard	%	57
Expenditures on environmental protection	million USD	59
Investments on environmental protection	million USD	58
Environmental fines	million USD	0.04
Significant environmental incidents	#	2
Adama's Code of Conduct	existence	

Further information and details, including the scope, content, assumptions, and estimates determined by the Company regarding the specified parts included in the process, can be found in the relevant chapters of the Company's Report.

Adama management is responsible for: A. the preparation and the presentation of the Report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) as described on the relevant page of the Report, and the information and assertions contained within it; B. for determining Adama's objectives in respect of sustainable development performance and reporting; C. for establishing and maintaining appropriate performance management and internal control systems from which the information is derived, to be free from omissions and material misstatements whether due to fraud or error; and D. the identification of stakeholders and material issues for reporting.

Our responsibility is to provide a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB). That Standard requires that we comply with applicable ethical requirements, including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether the Report is free from material misstatement.

A limited assurance engagement, regarding data and information in the specified parts on the ESG Report, consists of making interviews, primarily of Adama employees responsible for the preparation of information presented in the Report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Examination of the specified parts in the Report, for the purpose of performing a limited assurance, based on public information sources, knowledge of the Company business and other comparative information of similar organizations.
- Interviews of management to gain an understanding regarding the specified parts.

© 2023 KPMG Somekh Chaikin, an Israeli partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. Printed in Israel.

- Interviews with senior management and relevant staff of Adama management concerning corporate responsibility strategy and policies for the specified parts, and the implementation of these across the business.
- Interviews with relevant staff at corporate and business unit level responsible for providing the information in the Report.
- Comparing the information regarding the specified parts presented in the Report to corresponding information in the relevant underlying sources to determine whether all the relevant information contained in such underlying sources has been included in the Report.
- Where relevant, conducting interviews regarding the calculation, aggregation and methods used to collect and report the specified parts in the Report.
- Reading the information presented in the Report to determine whether it is in line with our overall knowledge of, and experience with, the corporate responsibility performance of Adama.

As part of the process of performing a limited assurance, we reviewed the changes made to the draft 2022 ESG Report of Adama and reviewed the final version of the Report to ensure that it reflects our findings.

Limited assurance is less than absolute assurance and reasonable assurance. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Based on the limited assurance procedures performed and the evidence we have obtained, described in this report, nothing has come to our attention to indicate that the specified parts as mentioned in the table above, in Adama's 2022 ESG Report are not presented, in all material respects, in accordance with the GRI and Adama's reporting criteria.

Our limited assurance report is made solely to Adama in accordance with the terms of our engagement. Our work has been undertaken so that we might state to Adama those specified parts we have been engaged to state in this limited assurance report and for no other purpose or in any other context. We do not accept or assume responsibility to anyone other than Adama for our work, for this limited assurance report, or for the conclusions we have reached.

Somekh Chaikin

Certified Public Accountants

Tel Aviv, Israel

26 June 2023

