



Sustainable Agriculture Network

**Annual Report 2019**

# A year of improvements to fulfill our mission

Change is happening at an accelerated pace: for organizations to succeed and thrive, they must build a culture that embraces flexibility, adaptability and continuous learning. 2019 was a year of transitions for SAN, geared to make it fit to fulfil its mission. We paved the way with the decision to develop a new Strategic Plan 2019–2024, that took into consideration the need to build a new business model beyond our previous work on certification. This new business model also envisions to transform SAN into a global collaborative network that promotes collective impact with growing membership. There were also important changes at the senior leadership level, welcoming the new executive director and partnerships development manager.

The Technical Team continued building a portfolio of projects that address critical sustainability issues in several crops and geographies, supported by funders from the corporate sector, as well as development agencies, and engaging Members as implementers at the national and local levels. During the second part of the year, efforts focused on strengthening our partnership and resource mobilization capacity, resulting in meetings with over 20 Overseas Development Aid (ODA) donors, corporations and other partners and potential sponsors in several countries in Europe. The long-term objective is to build a blended funding portfolio, including partnerships with corporate, ODA and philanthropic organizations.

The IT Team in collaboration with the Technical Team continued improving SAN's tools to support field work by Members and projects. The Communications Team continued its good work of sharing experiences from the field, from projects that the Secretariat, Members and partners jointly implemented, showing important impacts on sustainable value chains in several sourcing regions. The target to expand the Network membership started with two new Members admitted from Asia and Europe. At the end of the year SAN became a Charter Member of the Global Landscapes Forum (GLF), the world's largest knowledge-led platform on sustainable land use.

The last part of the year was dedicated to translating the Strategic Plan into an operational plan, as a management tool to help the Secretariat improve the monitoring, evaluation and learning processes. SAN aims to continue proactively negotiating and implementing projects that represent the journey towards our commitment that collectively transform agriculture and the rural landscapes for more equitable, prosperous and sustainable livelihoods, supported by a growing Membership base and more diverse sources of funding. SAN will strengthen the global reach and diversity of the Network, increasing its efforts to reach the 2024 goal of fifty Members in priority geographies.

SAN is ready to take on the challenges that the agricultural sector and rural communities face to be recognized as the leading global collaborative network and voice for sustainable agriculture. We greatly appreciate the financial support from Alfred Ritter GmbH & Co. KG, German Agency for International Cooperation (GIZ), ISEAL Innovations Fund supported by the Swiss State Secretariat for Economic Affairs, Nestlé, Partnerships for Forests – Brazil, Syngenta Mexico, Sustainable Winegrowing of British Columbia Program, The Body Shop and WWF Germany. Our work could not be done without the collaboration and commitment of our Members and partners.

We would like to invite you to learn about SAN's work, share your thoughts and suggestions, and join our community of supporters and friends.

## ***The Board and Staff of SAN***

## Our mission



SAN mission is being a global network transforming agriculture to secure a sustainable future for food, nature and rural communities.

## Our values

### **Collaboration**

effectiveness through collective impact at multiple scales.

### **Innovation**

Striving to develop new ways to improve the sustainability of agriculture.

### **Integrity**

Consistency in what we think, say and do.

### **Self-improvement**

Continuously learning and actively seeking for opportunities to improve the work.

### **Accountability**

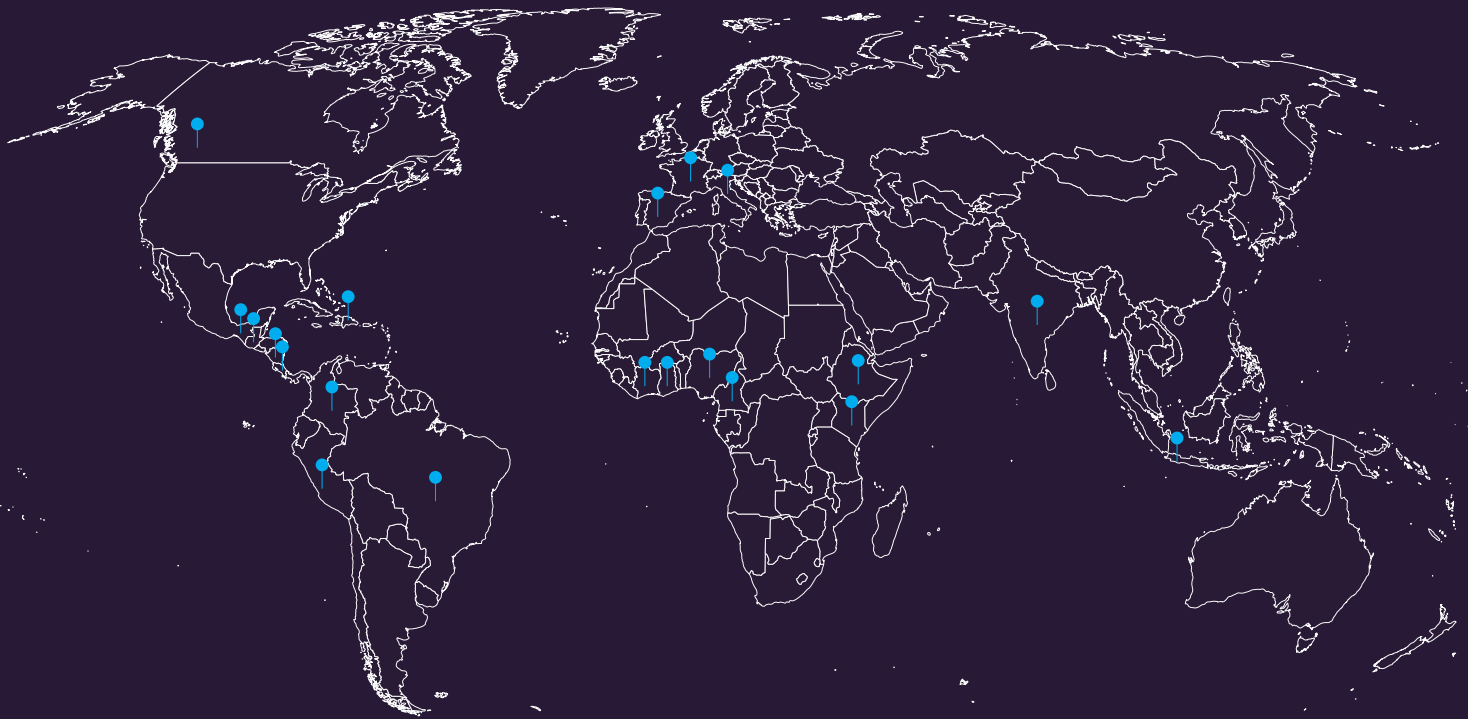
Delivering on commitments and being transparent in reporting.

### **Empowerment**

Working with and supporting a network of local partners.

# Our work in 2019

SAN worked on 12 projects in 2019. These projects included different activities such as assessments, trainings and implementation of best practices in some countries in America, Asia, Africa and Europe.



## America

- Brazil
- Canada
- Colombia
- Costa Rica
- Dominican Republic
- Guatemala
- Mexico
- Nicaragua
- Peru

## Asia

- Indonesia
- India

## Africa

- Kenya
- Ivory Coast
- Ethiopia
- Cameroon
- Nigeria
- Ghana

## Europe

- Spain
- France
- Italy

**+200 supply chains**

(processors, suppliers, buyers)

**+60 communities**

**+75 crops**

\*including field work and traceability

Around

**25,000 farmers**

**mostly smallholders**

\*direct and indirect impact



The infographic features a central yellow icon of a person with a gear, surrounded by a circular network of nodes. From this central point, six yellow lines branch out to connect to various statistics. The statistics are arranged in a circular pattern around the center. The central text 'SAN's Work Reach' is enclosed in a yellow double-line rectangular border.

## **SAN's Work Reach**

**+60 people**  
Trained

**+1,000 app downloads**

in 9 months



Outcome-based sustainability frameworks





## Outcome-based sustainability frameworks

*Since agriculture began it has focused on one output, producing food. Humanity, with a population of 7.8 billion people, can no longer depend on subsistence agriculture. Modern agriculture is a complex web of value chains that interact with the environment, local and regional economies, transportation and its infrastructure, and people, especially food consumers and producers. Along the way data can be collected about these interactions, allowing us to better measure the direct results, or outcomes, of agricultural value chain activities.*

It is difficult, and in some cases impossible, to directly measure or evaluate sustainability outcomes in the short term. SAN relies on best practices, such as those found in the SAN Sustainable Agriculture Framework (SAF), that are known to contribute to outcomes. The outcomes, in turn, can be linked to metrics, such as cubic meters of water consumed or the percent of organic matter in the soil. Outcome-based sustainability frameworks are these compendiums of best practices linked to outcomes and metrics.

Farmers that consistently implement best practices are on the right track to achieving the outcomes necessary for a more sustainable agriculture. SAN can assess the implementation of best practices in the short term, something many farmers understand better than outcomes. Over time, the outcomes, driven by best practice implementation and measured through the associated metrics, become evident.

SAN firmly believes that the only way to make agriculture more sustainable, and reduce its negative environmental footprint, is by tracking its outcomes. Is water consumption being reduced? Are pollinators being protected? Are workers protected from the potential toxic effects of pesticides? Are farmers better off—improved livelihoods—than before? Are input costs decreasing? Are farms more resilient with respect to climate change?

Outcome-based frameworks are important for companies, farmers, and communities within agriculture value chains. Outcomes allow them to measure progress on sustainability issues, or to understand where technical assistance or training is needed. Companies can use outcomes to back the sustainability claims they make to their stakeholders, clients, and consumers, and can adjust their efforts to address gaps and weaknesses. The data generated through the application of outcome-based frameworks allow governments to make informed decisions about the policies needed for sustainable agriculture, environmental protection, and rural development.

During 2019, a large part of SAN's work was focused on improving different sustainability frameworks through several projects in Brazil, Canada, the European Union, Ivory Coast, Peru, Ghana and Nicaragua. This work covered diverse supply chains for products like cocoa, tomatoes, onion, grapes, peppers, castor, and cattle production.



## SAN-Nestle Partnership for Responsible Sourcing of Vegetables

SAN is partnering with Nestlé and Fundación Global Nature (a SAN Member) to implement the Nestlé Responsible Sourcing Program for Vegetables. The program has three pillars: traceability, to map the supply chain; Compliance, to ensure that farms and processors are meeting basic ethical standards; and Creating Shared Value, to help farmers go beyond compliance and implement best practices and biodiversity enhancement on farms.

The project scope is global for the Traceability and Compliance components, including more than 70 Nestlé Suppliers and 120 processing plants around the world. The Creating Shared Value is implemented at a regional level in the European Union with six Nestlé suppliers. During 2019, the program covered 22 countries and 60 crops in the Traceability and Compliance pillars (including countries in Latin and North America, the European Union, North Africa, Eastern Europe, and East Asia). The Creating Shared Value pillar started activities in three countries (Spain, France and Italy), with six different suppliers and over 40 farms producing tomatoes, onions and peppers.

Within the Traceability and Compliance pillars, SAN is responsible for engaging with Nestlé Suppliers to map their supply chains, supporting them to comply with the Program requirements, and keeping the Program's Database up to date.

For the Creating Shared Value pillar, SAN and FGN, are tasked with supporting Nestlé Suppliers to identify areas for improvement and guiding the implementation of improvement actions in five different areas: biodiversity restoration, soil conservation, water management, correct handling of pesticide residues, and nutrient management.

## Pathway Towards Sustainable Livestock

In 2019, SAN led a pilot initiative aiming to support cattle ranchers in Brazil to change their current production systems for a more efficient and sustainable model. "Rota para a pecuária sustentável" (Pathway towards sustainable livestock) is a project focused on sustainability assurance by data management and verification audits that is being implemented in six farms in the Alta Floresta region of Brazil (near Amazonia) covering more than 9,000 hectares.

The project, supported by PECSA (a cattle ranching company) and IMAFLORA (SAN Member in Brazil) has three main components: a guide of best practices for cattle production, a defined protocol for field verification,

### Program's main goals

#### Traceability

To map the supply chain of vegetables being delivered to Nestlé factories, identifying product origins and the conditions under which crops are grown.

#### Compliance

To ensure that crops are produced under fundamental sustainability and ethical conditions, encouraging Nestlé suppliers to support their farmers for continuous improvement.

#### Creating Shared Value

To support the implementation of best practices at field level, promoting the conservation and management of natural resources and biodiversity.

### Program's main goals

- To promote best sustainability practices at farm level.
- To verify best practices implementation and continuous farm improvement over time.
- To compile a series of best practices for cattle ranching that include both the local regulations and requirements, and the international markets' standards.
- To create a platform that enables the cattle-ranching company to keep all their farms' performance data in one place and to present data-backed reports to their clients.

and an online database to keep track of progress and report on farms' conditions. This project is using the Sustainable Agriculture Framework (SAN-SAF) as the basis for the best practices guide.

During 2019, SAN and IMAFLORA worked with PECSA to produce the best practices guide, design customize the SAN digital platform according to their needs, and conduct baseline and field verification activities to identify conditions at farm level.

In 2020, SAN and IMAFLORA will focus on improving the project's main tools (database, guides and verification checklists) and designing performance reports that allow to see farms' progress. At the end of the project (in 2020), PECSA will get a sound assurance framework for the promotion and verification of best cattle ranching practices that can be replicated in other ranches in Brazil's Amazonia.

## Review and Development of SWBC Standards and Assurance Framework

The Sustainable Winegrowers of British Columbia (SWBC) is the sustainability initiative of the British Columbia Wine Grape Council (BCWGC), whose mission is “to promote the development of a strong and viable wine grape industry that will result in the production of world class wines and that will enhance the economic and environmental benefits to British Columbia”.

The SWBC offers vineyards and wineries support, education, self-assessments, and other tools to facilitate their adoption of sustainability best practices. In this context, in 2019 SAN worked on the review of existing standards, eventually helping the SWBC re-structure and re-write them to be more outcome-focused. This approach allows vineyards, wineries, and the BCWGC to promote sustainability achievements beyond a simple certification and labeling effort.

SAN produced field assessment-ready versions of the winery and vineyard standards that have been reviewed by the SWBC Steering Committee. The SAN technical team also generated a preliminary version of an assessment framework for the management of the certification and carried out pilot field assessments to review and verify the field tools. The initial assessment tool was included in the SAN Intelligence Hub (iHub).

In July 2019, a SAN expert traveled to south-central British Columbia, the main wine grape growing region, to carry out the field assessments using the modified standards and assessment tools. The assessments provided important lessons for managing the SWBC's sustainability promotion efforts.

SAN's subsequent work was focused on aligning key metrics with outcomes, and final changes to the standards.



Vineyard in British Columbia, part of BCWGC. Thomas Divney.

## Sustainability Baseline Assessment for Ritter Cocoa Supply Chains

In 2019, SAN conducted a sustainability baseline assessment of the Ritter cocoa supply chains in Nicaragua, Nigeria, and, with support from its member CEFCA, in Cote d'Ivoire.

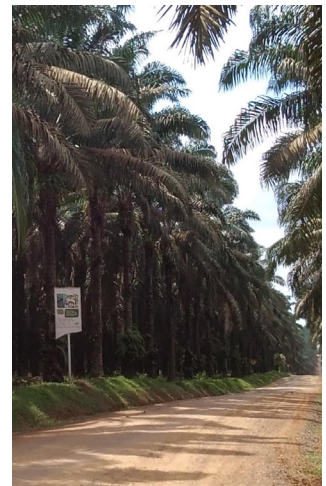
The purpose of the study was to identify the critical challenges for sustainable cocoa production and long-term wellbeing of cocoa producing communities, determine the root causes of sustainability gaps, and recommend elements and measures for future impact-oriented sustainability programs. These programs will potentially benefit approximately 2,000 cocoa producers each in Nicaragua and Cote d'Ivoire, and more than 5,000 farmers in Nigeria.

The SAN technicians of the three countries visited a meaningful sample of the smallholder farmers and interviewed cooperative and exporter representatives to obtain a complete picture of environmental, productivity and social challenges. Technicians also collecting information that will contribute to determine a feasible data collection system for the whole supply chain.

Once the assessments in Cote d'Ivoire, Nicaragua and Nigeria were completed, Ritter and its partner Fuchs & Hoffmann GmbH asked SAN to replicate the evaluation exercises of cocoa supply chain in Peru and Ghana. The activities included in this project are continuing in 2020.



Cocoa farmer in Nicaragua. Marcell Molina.



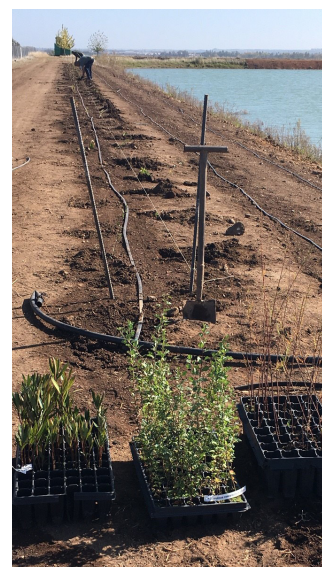
Palm oil farm in Sungai Lilin, South Sumatra, Indonesia. Catalina Mora.

## Brazil Castor Oil Supply Chain Risk Assessment

Agriculture is almost always related to food production, but there are many other non-food agriculture products essential in other sectors such as the chemical industry. In 2019, the global chemical company Arkema asked SAN to identify and assess potential environmental and social risks in the three possible castor supply regions in Brazil (Mato Grosso, Bahia Cerrado and Bahia Caatinga).

SAN implemented this project through its local member IMAFLORA, who carried out research to identify and describe major environmental and sustainability risks related to sourcing castor produced in Brazil. After a comprehensive analysis, five major risks were mapped:

- Deforestation (Cerrado biome) and Amazon for castor produced in areas deforested after 2008.
- Forced labor and modern slavery.
- Legality of land ownership for castor produced within protected areas, indigenous lands and rural settlements.
- Castor produced on farms that do not use good production practices, particularly waste management, soil protection, water use, incorrect use of pesticides, and worker protection and training.
- Traceability. There is no uniform system for tracking production and origins among the many farmers and regions.



Tree lines to be planted in a tomato farm in Badajoz, Spain. José Luis Vásquez.

The project further investigated these risks and assigned risk levels by region and type of farm. In addition, IMAFLORA identified immediate verification and mitigation actions, and long-term actions towards responsible sourcing. All the information gathered will enable Arkema to establish an accountability framework to set performance levels for good practices related to these risks along its Brazilian castor supply chain.

## Training concept, course curriculum and materials for the Food Security Standard (FSS)

The Food Security Standard (FSS), created by WWF, Welthungerhilfe, and the Centre for Development Research (ZEF) is a tool that provides a set of practical and measurable criteria, ensuring the Right to Food. It is not a stand-alone standard but is designed as a best-practice set in conjunction with sustainability certification standards.

SAN understands that the effectiveness of the FSS depends on the correct application and implementation of standards and criteria, as verified through assessments and audits. That is why SAN decided to work on the development of the auditor training concept, course curriculum, and training materials for the FSS.

For this Project that will continue in 2020, SAN will be designing a training concept to be used in the future training efforts for the FSS, the training documents and materials to implement the concept, and a two-day course curriculum for auditor training.



Cattle farm in Alta Floresta, Mato Grosso, Brazil. PECSA.



# Biodiversity Conservation

*Biodiversity conservation is critical for economic development and poverty alleviation, as biodiversity plays an important role in the provision of goods and services to people all around the world (Millennium Ecosystem Assessment, 2005). More than three billion people depend on coastal and marine biodiversity and 1.6 billion more depend on forests and non-timber forest products. In addition, around 70% of the global poor live in rural areas where as much as 50% to 90% of livelihoods are sourced from non-marketed goods and ecosystem services (CBD, 2017).*

The agricultural sector is also highly dependent on the services generated by biodiversity and neighboring natural ecosystems. These provide the sector with a wide range of services that include pollination, pest control, genetic diversity for future agricultural and livestock use, soil retention and structure, and the regulation of soil fertility, nutrient cycling and water supply (Power, 2010).

According to a May 2019 report from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the rate of species extinctions is accelerating, with around 1 million animal and plant species being threatened with extinction. The five direct causes of this alarming situation are:

- Changes in land use (75% of the land-based environment have been significantly altered by human actions);
- Direct exploitation of organisms;
- Climate change;
- Pollution; and
- Invasive alien species.

Land degradation has reduced the productivity of 23% of the global land surface and 100 million hectares of tropical forest were lost from 1980 to 2000. Food crops are highly dependent on biodiversity for their production with more than 75% of global food crop types relying on animal pollination. The annual value of global crop production at risk due to pollinator loss is estimated between US\$235 and US\$577 billion.

However, agriculture nowadays is still based on systems that have not factored biodiversity conservation into their production systems as a crucial element to safeguard food production on the long run. Not only wild pollinators are important for crop production, but also soil organisms (arthropods, fungi and bacteria) and all type of organisms that help stabilize natural food webs in areas dominated by agriculture: vertebrates, including predators at the highest level of the chain, such as wild cats or raptor birds. Yet all these organisms need sufficient natural habitats – forests, secondary growth or fallow land – as refuge, feeding and reproduction sites. These natural areas should be free from future degradation, such as pesticide applications or drift, fire use, elimination of vegetative cover (incl. forest understory vegetation), dumping solid waste or untreated wastewater, draining or drying of water bodies or wetlands.

In spite of the pessimistic findings of the IPBES Global Biodiversity Assessment Report, contributions to resolving the farm biodiversity challenge are well defined: promotion of good agricultural and agro-ecological practices, multifunctional landscape planning and cross-sectoral integrated land management.

SAN is a strong believer that solutions for biodiversity conservation on farms and the enrichment of agroecosystems with practical solutions, should be custom-designed for each crop and location. SAN's biodiversity tools and Sustainable Agriculture Framework provide a clear framework that can be adopted to these local realities.

In 2019, as a promoter of user-friendly and innovative solutions for sustainable agriculture, SAN worked on different projects that help to keep the balance between production and biodiversity conservation. These projects went from the development of a practical framework to run a biodiversity performance diagnostic on farms to planting tree lines and hedges around the field plots to increase the biodiversity at farm level, among other actions.

## Development and Instrumentation of "Biodiversity Check Agrícola"

In 2019, and thanks to the German Development Cooperation Agency, GIZ, SAN co-designed the "Biodiversity Check Agrícola" tool (BCA), a practical framework to run a biodiversity performance diagnostic on farms in order to provide recommendations to conserve and enhance biodiversity components of production areas, entire farm lands and their surrounding areas, towards the achievements of 18 goals.

The BCA is based on inputs from the SAN Sustainable Agriculture Framework (SAF) and the Biodiversity Check Tourism tool. The BCA framework was field-tested in Costa Rica, Dominican Republic and Guatemala, on banana, pineapple and sugarcane farms.

The Biodiversity Check Agrícola is a practical technical framework for voluntary diagnostics of the biodiversity conservation status in Mesoamerican and Caribbean fruit plantations. The SAN technical team trained 60 natural resource management and agriculture experts in Costa Rica and the Dominican Republic, that will help scale up the GIZ Field-to-Fork program for the banana and pineapple sectors in both countries.

SAN's involvement was crucial to create the local capacity for effective biodiversity advisory based on a seven-step process completely free from market pressures. The main step, the general farm visit, is guided by a structured dialogue with farm representatives and concludes with the implementation of a bilaterally-agreed custom-made and realistic biodiversity action plan for each farm.

## SAN-Nestlé Partnership for Responsible Sourcing of Vegetables

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BCA training session in a pineapple farm in Dominican Republic. Oliver Bach.



Beekeeping producer of Ethiopia. Nangula Heita Mwampamba.



Pineapple farm in Dominican Republic. Oliver Bach .



Forest beehives in Ethiopia. Nangula Heita Mwampamba.

The Creating Shared Value pillar is being implemented at a regional level in the European Union. The pillar's activities started in 2019 in three countries (Spain, France and Italy), with six different suppliers and over 40 farms producing tomatoes, onions and peppers.

SAN along with its member Fundación Global Nature are tasked with supporting Nestlé Suppliers to identify areas for improvement and guiding the implementation of improvement actions in five different areas: biodiversity restoration, soil conservation, water management, correct handling of pesticide residues, and nutrient management.

For example, in the Emilia Romagna region (Italy), SAN is working with tomato farmers to plant tree lines and hedges around the field plots, to increase the biodiversity at farm level. These vegetation areas are important for the fauna that need them as refuge, breeding and feeding sites. These areas also attracts natural enemies to the crops' pests and enhance the ecological connectivity of the region, enabling corridors and fauna movements between natural areas. This measure also answers to the efforts of preserving and improving the aesthetic and cultural values of the agricultural landscape.

In the past decades, pollinators have declined in occurrence and diversity in the European Union, because of land use changes, intensive agricultural management and pesticide use, environmental pollution, invasive alien species, pathogens and climate change. SAN is working with farmers in Spain and France to improve the ecological infrastructure within and around the crop fields, which includes the introduction of pollinator populations, the installation of bird and bat refuges, the restoration of riverine areas and the planting of flower strips. All of these actions aim to attract pollinators to the fields (4 out of 5 crops in the region benefit from them), protect the naturally occurring pollinator populations and reduce the impact of the agricultural activities over them.

The project in France also covers specific actions to reduce the pesticide pressure in order to mitigate the negative impacts over the environment, especially on the populations of beneficial micro and macro organisms.

## **Sustainability impact assessment of The Body Shop honey and beeswax supply chain**

In 2019, SAN conducted a social, environmental, economic and bee population impact assessment of The Body Shop's Honey Supply Chains in South-West Ethiopia with support from Bees for Development.

The project included literature analysis, interviews with Ethiopian expert stakeholders, field visits and dialogue with 24 forest beekeepers, and demonstrated that forest beekeeping practices are not causing

honeybees to be susceptible to diseases. The only negative environmental impact of forest beekeeping identified by the project was the use of native mature trees for the production of traditional log hives.

The project found that beekeeping communities in the study area can satisfy their basic needs, the only exception being clean drinking water. The assessment concluded that forest beekeeping significantly contributes to the income of the communities visited, but beekeepers are adapting gradually modern beekeeping methods so women, elderly and physically impaired people can increase their participation, as well as reducing travel time between beehives and homestead. Modern beekeeping methods also allow reducing damage of parasites, and having several harvesting seasons per year, resulting in higher production and income.

SAN recommended to The Body Shop that training activities on tree nurseries and enrichment planting, improved harvesting techniques, maintenance of bee fodder, drinking water treatment and effective group management, should be key elements of a strategy to conserve forest beekeeping in South West Ethiopia in the future.

Interview results conducted by SAN member CEFCA with Cameroonian beekeepers concluded that environmental impacts in the beekeeping community areas are low or in its initial stages. Thus SAN's recommendation was to conduct awareness raising activities about the importance of ecosystem and wildlife conservation as a first step to prepare communities to avoid or mitigate more significant negative impacts in the future. Training on effective producer group management is another activity with potential to improve the economic conditions of beekeeping communities and maintain a sustainable level of production.



Flower strip in an onion farm participating in the SAN-Nestlé Partnership for Responsible Sourcing of Vegetables, in Laon, France. Aline Horeau.





# Human Rights and working conditions in agriculture

*Agriculture is the second largest source of employment worldwide, employing around 948 million people, almost one-third of the world's labour force (ILOStat, 2017).*

*Agriculture is also one of the most hazardous occupations worldwide (ILO, 2013). In some countries the fatal accident rate in agricultural activities is twice as high as the average for all other industries. According to the International Labour Organization (2011), approximately 50% of the total of annual fatal workplace accidents globally correspond to agricultural workers.*

These workers and their families play a fundamental role in the development and operation of the agricultural sector, and in food production systems as a whole. Ensuring their wellbeing is essential to the sustainability of production units and their commitment to human development.

Despite their contribution to food security and economic growth worldwide, agricultural workers – especially wage earners – face conditions that negatively affect their livelihoods. Approximately two-thirds of the world's poor work in agriculture, and conditions in rural areas and agricultural landscapes limit workers and their families' access to decent wages, safe drinking water, basic education, health care and safe housing conditions (ILO, 2017).

Despite the heterogeneity of agricultural activities around the globe, some features are common between geographies and production systems. Agricultural workers often face deficits of decent available work, regularly receiving low wages and incomes for tasks that are performed in poor and even hazardous conditions (ILO, 2014a). Workers also have very few resources available for protection and compensation in terms of access to health care, wages and income, insurance and benefits (FAO, 2016a; FAO, ILO & IUF, 2007).

Creating optimum employment opportunities in agriculture and livestock is an essential driver for rural development and for more equitable and inclusive societies (FAO & ILO, 2010). SAN's vision of decent work conditions for agricultural workers is based on the provisions of international and local labor law, to ensure respect for human and labor rights by encouraging work opportunities that provide fair incomes; workplace security; freedom for workers to express their concerns, organize and actively participate in the decisions that affect their lives; and, equal opportunities and treatment for all women and men.

SAN conducts its work in ways that contribute to decent standard of living of workers, smallholders and their families in rural areas, including access to safe drinking water, to basic education, to healthcare, decent house conditions and a living wage.

In 2019, one of the major SAN project, the Responsible Sourcing Program of Spices in India, included a baseline assessment of farms and communities social conditions for the design and implementation of specific actions to address the main challenges identified. The assessments were carried out with the support of the SAN member ASK India.

## Responsible Sourcing Program for Spices

The Responsible Sourcing Program for Spices is an initiative by Nestlé, co-designed by SAN to ensure transparency on the origins of different spices, and its committed to progressively deliver positive impacts for farmer communities, the planet and the business within the Nestlé spices supply chain. The current project scope includes 13 districts in the Rajasthan, Telangana, Karnataka and Andhra Pradesh states in India, where spices production is key for the local economy.

The program, that will continue in 2020, covers more than 200 small and medium farmers producing cumin, coriander, chilli and turmeric, and will impact more than 30 communities through several specific activities.

The Spices Responsible Sourcing Program is divided in five different phases. During the first two phases (2018–2019), SAN and Nestlé worked closely with the spices suppliers to map their supply chains, determine the conditions under which the crops in scope are grown, and set a series of sustainability indicators and goals.

The project is now beginning the third phase, in which SAN is helping Nestlé suppliers address the main challenges identified and improve both the crop-production practices and the living conditions of farmers, workers and related communities. During this phase, SAN works on the promotion and training in best practices implementation with the different stakeholders within the supply chain. These practices include actions for soil conservation, water management, correct handling of pesticide and their residues, coverage of minimum wage and eradication of child labor.

For 2020, it is expected that more than 100 community leaders will participate in trainings sessions about workers' rights and child labor, and to develop an annual plan for social risks' monitoring on high-risk areas within the project scope.

### The program is focused on two areas:

#### Traceability

to map the entire spices supply chain and identify the area of origin of each of the spices sourced and the conditions under which they are produced.

#### Responsibly sourcing

to engage with processors and producers to progressively improve the conditions under which spices are produced.



1. Cumin farm worker and her child in Barmer, Rajasthan, India.



2. Women farmers select and separate freshly harvested chilli in Bellary, Karnataka, India.

Nancy De Lemos.



## Reduction of the agriculture's toxic footprint

*Production of crops and livestock are the main source of water pollution by nitrates, phosphates and pesticides, the major anthropogenic source of methane and nitrous oxide, and a massive contributor to other types of water, soil and air pollution. Current agricultural systems not only compromise the soils and water they rely on for food production, but also represent a risk to human health and all the ecosystem services that are essential for both, agriculture and human life (including pollination and natural pest control). The cost of this degradation is considerable and have long lasting effects.*

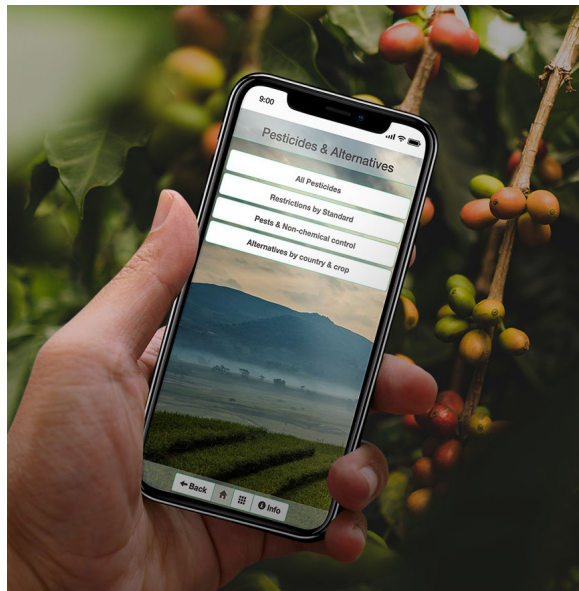
The control of pests by synthetic pesticides is one of the most used methods for commercial crop and livestock production. Many of these chemicals have severe negative impacts on human and environmental health because of their high toxicity and incorrect application. Additionally, safe agrochemical applications often require the use of specific personal protective equipment that is beyond the reach of many producers.

SAN's efforts to reduce the toxic footprint of agriculture are focused on the promotion of best practices for pest control, agrochemical handling and nutrient management in crop and livestock production systems. This includes helping farmers to figure out the best way to deliver nutrients and protection to their crops and livestock, without compromising the natural resources and ecosystem services around their operations.

In 2019, SAN worked on some projects directly linked to actions that enable a significant reduction of the agriculture's toxic footprint in farms in India and Mexico, and also lead to the development of an innovative App to help farmers in Mexico, Kenya, Brazil and Colombia, minimize the use of highly toxic pesticides.



Synthite representant explains some pest control measures without agrochemicals used by chilli farmers in Bellary, Karnataka, India. Nancy De Lemos.



Pesticides & Alternatives app, developed by SAN for the IPM Coalition.



Bee inventoried during pollinator research on corn farms in Puebla, Mexico. Manuel Zumbado.

## **Pesticides & Alternatives APP to support the reduction of pesticide use and risks**

SAN coordinated the development of the Pesticides & Alternatives APP for ISEAL Alliance and its IPM coalition of six certification standard systems.

The application is available in English, Portuguese and Spanish and was downloaded more than 1,000 times in nine months from the Google Play and iOS stores. The App can be used off-line in the field by standard systems' auditors, trainers and agronomists that implement pesticide management practices on farms.

“Pesticides & Alternatives” offers human and environmental toxicity information from international trusted sources for more than 700 active pesticide ingredients. For Brazil, Colombia, India, Kenya, and Mexico, the APP informs about which pesticides are authorized by the public authorities for specific pest species and crop varieties.

In addition, there is information available for 2.700 pest species from CABI, about how to control these pests based on Integrated Pest Management principles. The APP is also being used by biodiversity advisors of the GIZ Biodiversity Check Agrícola tool.

Reducing the use of highly toxic pesticides and offering relevant information about non-chemical pest control alternatives is key in a world where around two million tons of pesticides are consumed every year and where around 25 million agricultural workers experience unintentional pesticide poisonings annually.

“Pesticides and Alternatives” combines technology and scientific knowledge to create an effective and easy-to-use tool for decision makers of farms, fields and forest plantations in terms of pest management and pesticide use.

## **Operation Pollinator: Design and implementation of Multifunctional Vegetation Zones**

“Operation Pollinator” is a project funded by Syngenta Mexico with the participation of independent Costa Rican and ABC Mexico scientists. In its first stage, developed in 2019 the project focused on assessing the diversity of native plants and beneficial insects, to feed into a comprehensive design of multi-functional vegetation zones (MVZ) in six berries and corn farms in Mexico. The second stage of the project (2020), will focus on the implementation of the MVZ design on berry farms in Jalisco and corn farms in Puebla.

In 2019, SAN with support from its local associate ABC México, conducted a survey of the insect and plant diversity present in non-crop areas of berry farms in Jalisco and maize farms in Puebla-Tlaxcala. SAN's researchers found 46 plant species in berry farms and 41 species in the visited maize farms. These plants provide pollen, nectar and refuge to 63 beneficial insect species in Jalisco and 27 species in Puebla-Tlaxcala.

The results of the research form a new basis for integrated pest management in the areas and concluded in the selection of 20 plant species per region that will provide an ideal composition of multifunctional field margins as habitats for pollinators, predators and parasitoids. Natural enemies will control crops' pests

in a natural way and reduce the amount and toxicity of pesticides. Wild pollinator populations (e.g. bees and bumblebees) fulfill the role of pollinating raspberry, blueberry and blackberry without the need of subcontracting commercial honeybee pollination services.

This phase 1 of the project is the basis for the 2020 – phase 2 that will reproduce plants in greenhouses and establish the multifunctional field margins in the six farms. Once those plant habitats are matured, SAN will carry out another survey of the insect diversity. Results of phase 2 will aim to promote the value of this farm habitat enrichment strategy to the berry and maize sectors in the region and start working towards pollinator-friendly landscapes.

## Responsible Sourcing Program for Spices

The Responsible Sourcing Program for Spices is an initiative by Nestlé, co-designed by SAN to ensure transparency on the origins of different spices, and is committed to progressively deliver positive impacts for farmer communities, the planet and the business within the Nestlé spices supply chain. The current project scope includes 13 districts in four states in India, where spices production is key for the local economy.

In 2019, the scope of the program reached more than 200 small and medium farmers producing cumin, coriander, chili and turmeric in more than 30 communities that will be impacted by the project activities in 2020.

During the initial phases of the project, developed in 2018 and 2019, SAN and Nestlé worked closely with the spices suppliers to map their supply chains, determine the conditions under which the crops in scope are grown, and set a series of sustainability indicators and goals.

The project is currently in the third phase, in which SAN is helping Nestlé suppliers address the main challenges identified and improve both the crop-production practices and the living conditions of farmers, workers and related communities.

One of the main challenges the program aims to address is the use of pesticides and the implementation of Integrated Pest Management practices. In 2020, SAN will be working on the promotion and training in best practices implementation with the different stakeholders within the supply chain, including actions for soil conservation, water management and the correct handling of pesticide and their residues.

It is expected that more than 150 farms and farmers will be implementing best practices for soil and water conservation during 2020, and that more than 50 farms will implement best practices for correct pesticide handling, reducing the risk of toxic impact on people and the environment.



Butterfly inventoried during pollinator research on berry farms in Jalisco, Mexico. Manuel Zumbado.



Dried turmeric rhizomes in Belagavi, Karnataka, India. Prashanth Muniyappa.



Entomological classification work in the Pollinator Operation project. Sergio Navarro.



# Integrated landscape management

*For many years, SAN work focused on improving and implementing good practices at the farm scale. Experience showed the need to support supply chain transformation. More recently and along with the growing understanding that effective impact depends on integrated landscape management, in 2019 another step was taken, and the SAN began working at landscape scale that contribute to responsible sourcing regions.*

Landscapes or jurisdictions, are characterized by complex sets of physical, environmental, human, economic, institutional, and cultural resources, that jointly constitute their assets and potential. Working at the landscape scale allows issues to be addressed in a multifaceted way, integrating domains, involving stakeholders, and working at multiple scales (e.g. farm, value chain and landscape) – tackling the underlying causes of degradation and food insecurity and not just the symptoms (FAO, 2017).

The current model of agricultural intensification, which produces high yields, has also resulted in losses of ecological functions, biodiversity, and critical ecosystem services in rural landscapes, thus negatively impacting communities and the livelihoods of life of rural populations.

A significant consequence of agricultural intensification is landscape simplification, where once heterogeneous landscapes contain increasingly fewer crop and non-crop habitats. Landscape simplification aggravates biodiversity losses, which leads to reductions in ecosystem services on which agriculture depends. Farmers play a central role in shaping and contributing to the health of the rural landscapes.

For SAN, working at the landscape scale is crucial to evaluate the current status of landscape design, which could range from fundamental ecological principles to resulting guidelines and socio-economic tools. Enhanced resilience of people, communities, and ecosystems is the key to sustainable agriculture. In this context, in 2019, the project “Designing a blueprint for sustainable landscapes” was begun.

## Designing a blueprint for sustainable landscapes

SAN, in partnership with its member Fundación Natura, and AUGURA, the Colombian Banana Growers Association, and the eco.business Fund, is developing a practical, multi-level set of tools to drive long-term sustainability improvements across the landscape. The tool will serve as a “blueprint” for sustainability in a given region, providing a reliable assessment of how farms and other land uses are currently contributing to that goal, as well as streamlining and augmenting the work of standard systems and others that are working in the region. It will also assist in the development of feasible paths by which farmers can improve their practices and help financial institutions design better investment vehicles to support these efforts.

The Blueprint will be field-tested in Colombia’s biodiversity-rich Zona Bananera—a municipality of the Magdalena Department that is home to many banana and oil-palm small-scale and large-scale farms, where

poverty is high. However, it will be adaptable to other regions, industries, land uses, and standard systems.

The project, funded by a grant from the ISEAL Innovations Fund, which is supported by the Swiss State Secretariat for Economic Affairs SECO, started in 2019 and will continue until 2022. It involves a sample of about 70 banana and palm oil farms and engagement activities with key stakeholders in the region, such as a consultation process to identify the most significant sustainability issues.

The Blueprint is being designed not only to measure sustainability, but also to support farmers to improve against indicators prioritized by local people and aligned with standards' content areas. It will generate straightforward information on sustainability and reduce investment risk by displaying data on progress.

The 2019 work focused on the selection of the specific area for pilot activities and the mapping of local stakeholders and sustainability issues. In 2020 the first version of the Blueprint and the sustainability indicators pool will be tested and validated in the field.

The project also includes workshops, the development of a Geographic Information System (GIS) tool, and a consultation process with experts previous to de design of the final version of the Blueprint toolbox and a plan for scaling-up its use and replication in other regions and supply chains.



Banana farms in Magdalena Department, Colombia, within the scope of the Blueprint for sustainable landscapes project. Field visit of the Swiss State Secretariat for Economic Affairs, SECO, main donor of the project. Leiber Peñañoza.

# SAN Intelligence Hub (iHub)

The SAN concept of sustainable agriculture is not limited to the implementation of good agricultural practices on farms, or to the generation of actions that contribute to the well-being of workers, producers, and their families. It also recognizes the importance of technology and data management as a primary driver and fundamental element of the agricultural transformation that the world needs.

Part of the SAN work is focused on bringing technical solutions and tools for the farmers to cover basic needs that will help to improve their business in food systems. Here is where Farm Management software plays an essential role in crop and product management. The SAN Intelligence Hub (iHub) is a platform designed to be a solution for collecting data and providing monitoring in sustainability assessments.

Farm-level data is an essential piece in covering actionable and tailored farmer-centered services with data

to individual farmers. Information about farms and the farmers can be sorted in different elements that are useful for different types of services.

These services are mainly designated under the term 'precision agriculture' and they have been developed and deployed all over the world for more than a decade. The iHub was launched in 2018 and got its first clients in 2019, collecting and analyzing data from Brazilian farms.

Producers and businesses are using the iHub for registering their general company information, the farms location, labor, energy sources, soil nutrients, land uses, and product handling. Also, the iHub is being used for evaluation of processes and diagnostics and for conducting self-assessments. All the information with results is consolidated in reports to comply with standard protocols.

## Standard schemes being monitoring in the iHub

- Guia de Indicadores de Pecuária Sustentável (GIPS)
- Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA)
- Sustainable Agriculture Certification by Rainforest Alliance
- Sustainable Agriculture Initiative (SAI)
- Smart ELO

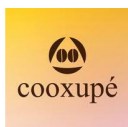
## Monitored crops

- Beef
- Coffee
- Orange
- Lime / lemon
- Sugar cane
- Sweet potato
- Chilli pepper

Total operations registered



## Clients





# A growing network

The SAN is committed to the principles of collaborative work to deliver collective impact. It is clear that the union of shared forces and visions is the key to accelerating the positive changes that the world requires.

SAN's work would not be possible without the support and participation of its members, who in many cases have acted as local experts and implementers in the field.

In 2019, the network welcomed two new members: ASK India and Global Nature Foundation, from Spain.



# 2019 Highlights

2019 was a fruitful and intense year for the SAN, full of events and new alliances to project the work of the organization. Some highlights below:



## SAN, FGN and GNF working together to promote biodiversity restoration and conservation in the agri-food sector

In May, and as part of the celebration of the International Day for Biological Diversity (May 22), the SAN, the Global Nature Fund (GNF) and Fundación Global Nature (FGN) signed a Memorandum of Understanding with the aim of joining forces to promote biodiversity restoration and conservation in the agri-food sector.



## BCWGC's 2019 Enology and Viticulture conference

The SAN's Technical Director, Tom Divney, participated in July in the BCWGC's 2019 Enology and Viticulture conference to give a presentation about outcome-based approaches versus certification schemes. The presentation focused on sustainable wine certification initiatives and the growing importance of claims about sustainability achievements for consumers, wholesalers, and retailers. The conference is a biennial event for BCWGC members, partners, international experts, and wine and grape industry suppliers.



## Seminar at the Center for Development Research ZEF

The SAN's Executive Director, José Joaquín Campos, gave a presentation about SAN and its collective impact strategy for transforming agriculture at the Center for Development Research ZEF, University of Bonn, in September. The seminar was attended by scientific, academic and associated staff, as well as international graduate students. Campos took this opportunity to present SAN as a collaborative and collective impact effort to link global commitments with local actions.



## SAN as part of the FONAP

In October, the Forum for Sustainable Palm Oil (FONAP) elected Sascha Tischer, representing SAN, as Board member of the multi-stakeholder initiative supported by the German Government, the private sector, the civil society, and the scientific community.



## ISEAL Innovations Summit

Tom Divney, the SAN Technical Director, participated in the ISEAL Innovations Summit in November, presenting the Blueprint for a Sustainable Landscape project.

Photo of Innovation Grant recipients with Karin Kreider of ISEAL and Christain Robbin of SECO and at the ISEAL Members' week.



## SAN joins the GLF

In December, SAN joined the Global Landscapes Forum (GLF) as a charter member to share experiences from the field which prove that by working collectively with shared goals, it is possible to transform agriculture to a more sustainable and equitable pathway.

# Financial statements

## Note

The 2018 deficit was the result of the change in the business model of SAN and was covered with reserves.

## PERIOD 2018

Income	Amount USD
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Royalties	506,547
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Reimbursement	1,172
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Projects	500,172
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Exchange gains	726,255
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<b>Total Income</b>	<b>1,734,146</b>
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Expenses	Amount USD
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Technical Development	677,845
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Communications	133,213
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Finance, Operations and Governance	680,247
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Exchange losses	749,153
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<b>Total Expenses</b>	<b>2,240,458</b>
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# Clients and donors



Good Food, Good Life



# SAN Governance

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Laura Prada (Imaflora –Brazil)

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Eduardo de Miguel (Fundación Global Nature – Spain)

Aqueel Khan (ASK India)

Ria Stout (Rainforest Alliance – The Netherlands)



## We are a collaborative network delivering collective impact

**Cover:** Prashanth Muniyappa. A woman supplying drinking water to the harvesting workers in a chilli farm in Karnataka, India.

**Photography:** SAN team and external collaborators. Collage photographs by: Nancy De Lemos, Thomas Divney, Marcell Molina, and Nangula Heita Mwampamba. Back cover: Prashanth Muniyappa.

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