



International  
Labour  
Organization

# VISION ZERO FUND

The experience of the National Federation  
of Coffee Growers of Colombia in  
occupational safety and health



**EXECUTIVE SUMMARY**



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This document summarizes the study entitled “The experience of the National Federation of Coffee Growers of Colombia in occupational safety and health”, which is part of the research carried out in the framework of the Vision Zero Fund project entitled “Improving occupational safety and health in coffee value chains”, developed within the framework of the International Labour Organization (ILO) Safety and Health for All programme.<sup>1</sup> It presents the results of the analysis of three training sessions on occupational safety and health (OSH) conducted by the National Federation of Coffee Growers of Colombia (FNC) during the period 2013 to 2019. In this regard, the study provides useful tools to advance the development of significant experiences in the promotion of OSH.

Historically, Colombian coffee institutions<sup>2</sup> have been oriented towards providing public goods that complement state action by developing research services; agricultural technical assistance; connectivity and communications; purchase guarantees; quality control; differentiation; and value addition. All of this has been done to improve productivity, competitiveness and OSH conditions by providing educational programmes, social protection programmes in health and more recently training programmes on the prevention of occupational hazards.

The FNC is a trade association made up of Colombia’s coffee producers. Its objective is to guide, organize and promote Colombian coffee-growing and also to ensure its profitability, sustainability and competitiveness, securing the well-being of coffee producers through collaboration, participation and promotion mechanisms.

The principal FNC mechanism for collaboration and technical assistance is the Rural Extension Service, which was established to support the processes of retraining, rural education, technology transfer and improving the production processes and living conditions of coffee growers. These functions

have been strengthened and disseminated through mass communication strategies enlivened by imaginary characters who are now household names in Colombian society, such as Professor Yarumo, an extension worker who travels the country spreading good agricultural practices and effective ways to plant and grow coffee.

Over the last decade, OSH legislation has evolved substantially. In particular, it established the Occupational Safety and Health Management System (OSHMS), which is a logical, step-by-step process, based on continuous improvement and including policy, organizational, planning, implementation, evaluation, audit and improvement measures that aim to anticipate, recognize, evaluate and control the risks that may affect OSH.

As a result, unions and companies have begun to promote and apply OSHMS measures in their respective spheres of action. The FNC was one of the unions that supported this standard-setting process, which in 2013 and 2014 led to the establishment, in collaboration with the Ministry of Labour, of a programme to strengthen the self-care of Colombia’s coffee-growing population. This process was the first OSH experience in the Colombian coffee value chain that was documented and classified by the study.

Subsequently, the Government of Colombia developed a broad and comprehensive set of regulations aimed at defining the minimum OSHMS standards that companies were required to implement. In this context, the FNC again took the initiative to promote and share the agreed standards with coffee growers. To this end, it designed a 50-hour OSH virtual training course and the publication OSHMS Manual for Coffee Farms, which describes the steps that should be followed to implement the standards. This initiative was the second OSH experience in the Colombian coffee value chain that was documented and classified by the study.

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1 The Vision Zero Fund (VZF) brings together governments, employers’ and workers’ organizations, businesses and other stakeholders to jointly move towards the goal of achieving zero work-related accidents, injuries and fatal and serious diseases in global supply chains..

2 Including in order of establishment: the FNC (1927); the bonded warehouses (1929); the Caja Agraria (1931); the National Coffee Research Centre (CENICAFÉ) (1939); the National Coffee Fund –(FoNC) (1940); the Agricultural Insurance Company (1952); the Coffee Bank (1953); the Rural Extension Service (1959); the Manuel Mejía Foundation (1961); the Almacenes Generales de Depósito de Café (ALMACAFÉ) (1965); and the Freeze-Dried Coffee Factory (1973).

The radio and television programme entitled “The Adventures of Professor Yarumo” has been broadcast more than 1,000 times and is accessible to all 600 coffee-growing municipalities in Colombia, along with other programmes such as “Excelso” and “Yarumadas”, in order to orient coffee growers about the services, good practices and technical

advances of the Extension Service. The FNC’s radio and television programmes constitute the third OSH experience in the Colombian coffee value chain that was documented and classified by the study.

These three documented, classified and analysed training experiences are described below.



**Programme entitled  
“Strengthening the  
self-care of the coffee-  
growing population”**

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This programme was developed during 2013 and 2014, in the framework of different agreements signed between the Ministry of Labour and the FNC, to carry out actions to promote health and prevent occupational hazards in 16 departments in Colombia, benefiting 7,549 coffee growers.

This experience originated from the FNC’s interest in joining the promotional and preventive activities of the Ministry of Labour’s Directorate for Occupational Risks, which had been implementing different initiatives targeted at specific vulnerable labour populations, such as young workers, displaced women and rural women workers engaged in agricultural activities.

The stakeholders involved were the departmental and municipal coffee committees, the FNC Extension Service and the coffee growers. The project aimed to consolidate efforts to strengthen the self-care of the vulnerable working population, based on the identification and characterization of the coffee-growing population. The objective was to develop a programme that would promote OSH conditions and the prevention of accidents and diseases in the coffee-growing population and would also conduct educational and preventive campaigns for informal workers engaged in coffee production.

The immediate precursor of this experience was a study conducted by the FNC in Caldas in 2012, entitled “Working Conditions and Overview of Risk Factors of Small Coffee Farmers in Caldas”. It generated the first analysis of the risk factors of small coffee farmers, with three components: (i) classification of coffee activities; (ii) identification of hazards arising from the activities classified; and (iii) risk assessment.

Based on the results of the above-mentioned risk factor analysis, the training process of this first experience was oriented towards health promotion and risk prevention with a view to generating greater awareness of how to control and mitigate physical, chemical, biomechanical, psychosocial and safety hazards. The participants in the training process received training in self-care guidelines

and healthy lifestyles; the prevention of specific risks associated with coffee-growing activities; and social awareness-raising to strengthen partnership bodies.

The activities carried out included conducting surveys on the health and working conditions of 7,549 coffee farmers (4,433 in 2013 and 3,116 in 2014); training and technical assistance visits for the improvement of working conditions; and the promotion of organizational bodies for coffee farmers.

The training programme included modules that addressed the different components of the Comprehensive Social Security System (SSSI), in particular the subsystems of health, pensions and occupational risks. Similarly, the benefits of belonging to associations and cooperatives affiliated to the FNC were promoted as a means of accessing a range of goods and services: purchase guarantees, solidarity aids, services in coffee warehouses, credit services, access to formal education, marketing of specialty coffees, financial and technological strengthening, and so on.

With respect to OSH specifically, the programme led to the first survey of information and identification of hazards in coffee-growing. Although it did not correspond to a statistically representative sample that would allow the results to be extrapolated to the whole country, it did permit the profile of the occupational hazards of coffee farms to be established, drawing on a database of more than 7,000 workers in all the coffee-growing departments in Colombia.

On that basis, a booklet was distributed that described in a user-friendly and informative way the key occupational hazards in coffee-growing, specifically addressing self-care; physical, biological, chemical and biomechanical hazards; the safe use of tools; and emergency care.<sup>3</sup>

Throughout the project, the FNC was in charge of conducting the surveys and the occupational risk training, as well as providing technical assistance to the coffee growers’ production units. The surveys, training workshops on occupational hazards

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3 The booklet is available at: <https://www.flipsnack.com/federaciondecafeteros/5-cartilla-fnc-fortalecimiento-del-auto-cuidado-de-la-poblac.html>



and technical assistance visits were conducted by professional OSH specialists. The meetings to raise awareness and promote partnership bodies were conducted by social sciences professionals with a specialty in education and/or outreach.

On the other hand, based on the interviews and focus groups conducted, the main result of the project to strengthen the self-care of the coffee-growing population was its positive impact on the OSH knowledge, attitudes and practices of coffee growers. However, although more than 7,000 people were trained in two years, the challenge remains of extending that experience to the universe of 541,000 families in all the coffee-growing regions.

Of particular relevance was the evaluation of the impact of the training programme through a survey of the attitudes, knowledge and practices of 3,116 coffee farmers conducted at the beginning and end of the programme. Both surveys showed a significant improvement in the understanding of concepts and a change of behaviour and perceptions related to OSH. According to this evaluation, the initial baseline for the "attitudes" component was 76.34 per cent and reached 93.11 per cent on completion of the programme. This means that of the 3,116 coffee farmers involved, 2,901 consciously adopted safety measures on issues such as keeping their work tools in good condition and shared with their families and communities the most common risks they faced in their workdays.

The change in the safety level corresponding to "knowledge" was quite significant, as it was initially 44.73 per cent and reached 76.52 per cent on completion of the programme. This indicates that 2,384 coffee farmers acquired knowledge that enabled them to identify and classify hazards according to the level of impact and threat specific to their farms.

With regard to the third component, it was determined that 2,661 of the 3,116 participating coffee farmers adopted safer practices than before the completion of the programme, especially those related to physical activity before and during working hours and the correct use of personal protective equipment (PPE) (gloves, hats and walking sticks to prevent falls).

A second particularly relevant result of this experience was the collection of data for the diagnosis of the accident rate in Colombian coffee-growing. It was determined that the main type of injury consists of blows, cuts and musculoskeletal injuries, caused by falls in more than 50 per cent of the cases.

On the other hand, the workshop strategy made it possible to consider the need to design a methodology that was better adapted to the characteristics of the population (age and schooling). Interviewees emphasized the need for future training processes to be combined with the repetitive model used by the FNC for the technical issues of coffee-growing, which would allow for addressing and generating changes in behaviour.

Interviewees also highlighted the need to focus future resources not only on characterizing the population and teaching OSH content but also on producing outreach materials and communication packages using mass media and other strategies, so as to provide greater coverage and sustainability.

As a result of the dialogue and interaction with coffee farmers, the following good practices stand out from this experience:

- Learning methodologies that involve experiential components are appropriate and meaningful to farmers. The learning-by-doing techniques that incorporated technical assistance and on-site workshops made a greater impression on the farmers. By contrast, only some of the OSH content they worked on in the classroom was meaningful.
- Changes in perceptions and attitudes must be approached and reinforced through adult learning processes that are meaningful to participants.
- The data collection instruments and methodologies have pedagogical potential. Questions include terms and concepts unfamiliar to interviewees, whose doubts and gaps in knowledge can be resolved through the use of questionnaires.
- The approach to self-care and healthy lifestyles should be oriented towards the families and environments in which people live their lives.



# OSH virtual training course and OSHMS Manual for Coffee Farms

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The OSH virtual training course and the *OSHMS Manual for Coffee Farms* were developed by the FNC after regulations were issued that obliged coffee growers to implement the OSHMS regardless of the size of their production units, their administrative capacity or the number of workers involved. One of the requirements envisaged by the OSHMS was the completion of a 50-hour virtual course for those responsible for OSH in the production units, since existing courses targeted large companies in urban areas rather than families and production units in the coffee sector.

For this reason, the FNC applied to be the provider of the virtual course on OSHMS and obtained the necessary authorization of the Ministry of Labour to adapt the content of the OSHMS standards to the coffee-growing context, with the support of the Manuel Mejía Foundation (FMM),<sup>4</sup> an established coffee-growing institution that has a recognized track record in the education and training of coffee growers and their families.

OSH risk management, prevention and mitigation in rural Colombia was at an early stage, especially in more remote areas. Few coffee farmers had access to information on how to improve their preventive OSH practices. This meant that coffee farmers, particularly in small and medium-sized farms, had no access to services that could help them identify hazards and implement preventive measures.

The structure of coffee farms was very different from the type of business targeted by regulations, due to the characteristics of small and medium-sized coffee growers – representing 99 per cent of coffee production units – whose families carried out subsistence work that left no margin for the allocation of resources for OSH training or the implementation of the OSHMS. Therefore, the OSH virtual training course was announced in population centres and cities that had connectivity or proximity to the headquarters of the Municipal Coffee Committees, with the participation of 1,834

registered coffee growers; 1,745 completed the course successfully. Graduates of the course were given a copy of the OSHMS Manual, which included a guide in the form of a booklet for coffee growers that detailed the steps to follow for the design and implementation of the OSHMS in coffee farms.

As the virtual course progressed and the *OSHMS Manual* was used, the participants observed that the regulations did not take account of the characteristics of the agricultural production units that make up the coffee value chain, in which a high degree of informality prevails. As a result, participating coffee growers were resistant to the application of the minimum OSHMS standards in coffee production units.

On the other hand, the *OSHMS Manual* constituted a useful guide for OSHMS documentation of coffee farms with respect to the requirements established by current regulations. Its content was adapted to the practical context of Colombian coffee-growing and simplified the complexity of the management systems concept, adapting it to the response capacity of coffee farmers. The *OSHMS Manual* included the following attachments:

- OSHMS self-assessment form, a tool for formulating the baseline and measuring the evolution of OSH management in coffee farms.
- Legal requirements matrix format.
- Registration of the Hazard and Risk Matrix of coffee farm activities. This register covers the identification of hazards, the evaluation and assessment of risk and the determination of controls for each specific activity of the coffee farm.

The OSH course held in 2017 was an online training process. The main outcome for coffee farmers and extension workers was the incorporation of specific tools to implement OSH controls and measures in the production units.

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<sup>4</sup> The current mission of the FMM is: “To support educational processes that promote the well-being of coffee growers, their families and other rural and urban communities in Colombia, through the design, development and implementation of training programmes”. For a brief history of the FMM, see: <http://www.fmm.edu.co/index.php?id=545>.

The interviewees stated that the *OSHMS Manual* developed by the FNC was a step forward. Its implementation revealed the challenge of implementing the current OSH regulations in the small-scale coffee farmers' units. Nevertheless, it was possible to introduce coffee farmers and extension workers to the technical field; familiarize them with tools such as the hazard identification matrix; provide them with knowledge on risk assessment and evaluation; and establish the respective controls.

Participation in the course showed that the connectivity barriers of the coffee-growing population, together with the large proportion of older coffee farmers living in areas far from urban centres, make the Extension Service the main recipient of training and in turn the main channel for transmitting the training content to coffee farmers. Extension

workers can also adapt training content to the specific regional contexts of coffee farmers.

As a result of the dialogue and interaction with coffee farmers, the following good practices stand out from this experience:

- The use of information technologies for the continuing education of the Extension Service.

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- The design of communication and dissemination strategies for the younger population.

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- The use of coffee institutions to develop coverage strategies in remote areas.

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# FNC radio and television programmes

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The FNC radio and television programmes for coffee growers are entitled “The Adventures of Professor Yarumo”, “Yarumadas” and “Excelsos”. The content of the programmes is generated by the FNC at a central level and broadcast through the broadcast networks of the Departmental Committees.

The FNC was a pioneer in the use of radio to disseminate information on health content and the technical aspects of coffee cultivation. It has also been providing information for several decades on OSH issues, such as information to demonstrate methods for the application of agro-chemicals. Although the various issues and types of hazards involved in coffee production have not been addressed systematically, a number of issues related to the safety and health of coffee farmers have been covered. Also, the emergence of specialty coffees – which must meet certain standards in order to be certified – has meant that the OSH issues required to obtain certifications have been addressed.

The sociopolitical conditions of the early 1990s provided an important context for generating the approaches taken by the programmes, given that it was at that time proposed that the cost of production of a load generated profitability starting at 750,000 Colombian pesos (approximately US\$200), which implied reorganizing different processes, such as maintenance and training of the workforce.

As a result, the communication strategies and radio and television programmes produced by the FNC were from that time oriented towards providing OSH content focused on the well-being of coffee growers. After the issuance of the regulations establishing the requirements for the implementation of OSHMS by employers and contractors in Colombia, specific messages (tips or information bulletins) began to be developed to provide information on technical issues related to OSH in coffee-growing.

The OSH content is generated based on whether or not it is harvest time. Depending on the information to be conveyed, the messages are prepared and coffee growers from different regions of Colombia are invited to record the programmes, using the coffee growers’ own language and musical

backgrounds and the rhythms and styles characteristic of each region.

The FNC prepares the scripts and produces the programmes, which have the following different formats:

1. Question-and-answer sessions with Professor Yarumo on the technical issues and concerns of participants.
2. Professor Yarumo invites coffee growers to present their concerns and problems; he responds, elaborates his points and provides a definitive technical statement.
3. The coffee farmers help with the voiceover and the elaboration of trovas (folk lyrics) to reinforce messages with a regional identity.
4. Direct interviews on the subject of OSH.

These programmes target coffee-growing families throughout Colombia. From the outset, the preparation and broadcasting of these radio programmes have focused mainly on the practices of coffee growers. As noted by the producers, especially Professor Yarumo (Daniel Chica), the idea is to reach both the coffee farmer with a PhD and the coffee farmer who cannot read or write with a clear message.

The radio programmes are part of a mass communication strategy that the FNC has been developing for years, with the aim of incorporating safe self-care and work behaviour guidelines into the daily language of extension workers and coffee growers. The programmes are broadcast via social networks, telephone lines and channels such as the SoundCloud platform, by email and voice-to-voice communication with extension workers (1,500 workers in 23 departments).

In the area of OSH, specific technical issues are addressed that highlight the care that should be taken to address OSH, depending on whether or not it is harvest time; the correct use of tools and protective elements for the different coffee-growing activities; when to take precautions following pest infestations; and the identification of hazards and accidents that may occur on coffee farms.



The programmes are disseminated via radio, television, the printed press, posters and social networks. Each department in Colombia has its own particular approach and the various urban and rural contexts present different conditions in terms of access to mass media (radio, internet connection). In general, population centres have greater connectivity, which is why the presence of coffee committees and their capacity for dissemination and communication are taken full advantage of through various media linked with the regions (newspapers and local radio stations, regional television channels).

The approach of the programmes and the use of the different methods of dissemination target a wide and diverse audience. Specific messages on technical content (such as renovation of coffee plantations) are developed with simple language, including the development of *coplas* (folk lyrics) and *trovas* to reach coffee farmers, using cultural elements that preserve cultural heritage and foster a sense of ownership among the population.

On the other hand, OSH issues have become more and more closely related to the requirements of certification processes, which have established the need to implement controls and self-care measures (such as the proper use of chemicals; separate handling and washing of clothes; the proper use of gloves and sunscreen; and the disposal of chemical containers). As a result, programmes that promote the certification process have reinforced OSH content in coffee farming.

The main barrier to reaching the entire coffee-growing population has been the fact that the mass media do not have full coverage in rural areas. In addition, the cultural diversity of Colombia has implied adapting OSH content, based on the elements of each region's folklore, for its dissemination in media such as the Institutional Channel, Radio Televisión Nacional de Colombia (RTVC), TV Agro, Telecafé and community media in some regions.

Although the radio and television programmes broadcast by the FNC with specific OSH content are still very recent, one of the key changes in the production of these programmes is that they are being prepared to reflect the technical aspects of coffee-growing – that is, the deliberate expression

of the technical aspects of coffee-growing activities, with specific guidance on the appropriate (safe and healthy) practices to be adopted by the workers who perform them.

It is also worth noting that the inclusion of extension workers as spokespersons and spokespersons for the messages is a fundamental lesson learned from the FNC's formative and guiding tradition. The Extension Service is responsible for training on the technical aspects of coffee cultivation with respect to the proper management of the environment, food security, reforestation, conservation of cultural heritage, biodiversity, health, citizen coexistence, self-care, healthy habits and lifestyles and responsible consumption, among other issues.

The structure of the FNC has also made it easier for departmental and municipal coffee committees to adapt the general content of information to their particular context and to emphasize issues of special interest to their regions. These specific issues are related to the adoption of work approaches that are complementary to strictly agricultural issues (such as tertiary road infrastructure and education) and, as coffee growers like to point out, OSH promotion can still go deeper into important issues, such as biomechanical hazards (prolonged postures, repetitive movements and handling of loads) and other hazards.

As a result of the dialogue and interaction with coffee farmers, the following good practices stand out from this experience:

- Use of technologies and mass media to reach all audiences.

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- Use of colloquial language, setting of OSH content in local contexts and use of popular regional figures and characteristics.

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- Recognition of the traditional uses and practices of ethnic groups.

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- Recognition of the leadership and roles of people in different communities, taking account of their age ranges.

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- Combining health and safety issues with productivity and sustainability issues.

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In summary, the three experiences described above report relevant results for the advancement of OSH promotion in the Colombian coffee sector. Above all, they generate an important set of recommendations for future OSH training processes and initiatives aimed at the prevention of occupational accidents and diseases.

In addition, this study includes a set of recommendations that were organized into three groups. **The first group of recommendations** focuses on the institutional design and planning of future OSH promotion initiatives with deeper roots and broader coverage. Recommendations are made for institutional arrangements that facilitate the establishment of intersectoral strategies and mechanisms to strengthen the role of the FNC as a facilitator and manager of inter-institutional dialogue. This dialogue will make it possible to generate public policies and programmes that promote the welfare and OSH of coffee farmers.

On the other hand, it is advisable to identify and articulate the strategies provided by other entities at the national level for family care, early childhood, gender equity and women's empowerment. This can be complemented with the promotion and adaptation of labour regulations to the contexts of rural, indigenous and Afro-Colombian communities, as well as the design of mechanisms to facilitate the formalization of their economic activities.

It is also recommended to design written materials in clear, simple and inclusive language, incorporating tools – such as radio soap operas, flip charts, booklets, mnemonic cards and didactic activities – with guidelines and recommendations written to reflect the regional context and the harvest and non-harvest seasons. For the use of these materials, it is recommended that OSH training be adapted to cover more remote rural areas, applying training-of-trainers techniques and “farmer-to-farmer” methodologies. Strategies could include the development of toolkits for

extension workers so that they can develop training microprocesses at workplaces (farms) during technical assistance visits.

**The second group of recommendations** focuses on considerations for the design of methodologies, tools and didactic materials that are meaningful and useful for coffee farmers. In terms of training, OSH interventions and materials could be developed in regions in which women-led production units are significantly represented in order to define concrete actions specific to their working conditions. This implies identifying the population of women coffee growers and prioritizing their participation in training processes. Similarly, it is necessary to encourage young people to participate in coffee-growing in a healthy and safe way through the design of interventions and materials that target community meeting places, educational spaces and partnership bodies.

Finally, **the third group of recommendations** focuses on themes and issues to be taken into account in developing specific OSH topics, considering the hazards and risk factors present in coffee farming, such as biomechanical, physical, biological, chemical and safety-related factors. It is also important to reinforce knowledge of the proper use of machinery, tools and PPE. It is furthermore necessary to strengthen the planning of OSH activities on coffee farms, without forgetting cross-cutting and cultural issues, such as family conditions; child-rearing patterns; bridging generational gaps in coffee-growing in a safe and healthy way; and the regional particularities of coffee growers, with an age, territorial, intercultural and gender focus.

The full study on which the above summary is based, entitled “La experiencia de la Federación Nacional de Cafeteros de Colombia en seguridad y salud en el trabajo”, is available at: [https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms\\_764247.pdf](https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_764247.pdf)



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