

# GUIDE TO **FORESTRY-BASED ENTREPRENEURSHIP**





# EXECUTIVE SUMMARY

**Latin America is characterized by a young population whose employability is still unstable. According to the International Labor Organization, the high rates of unemployment and informal jobs affect 110 million youth in the region; this situation poses the challenge of designing strategies that help the youth enter into the labor market and that foster decent work and the development of this population group. In Reforestamos, we consider sustainable entrepreneurship as one of the factors that facilitate employment.**



This is why, after seven years, through our Young Forest Entrepreneur initiative (YFE), we have trained seven thousand forestry students in the region on entrepreneurship topics. This experience has highlighted the need for developing a Guide on Forestry-Based Entrepreneurship, to disseminate the knowledge to young students who live in rural areas and who study forestry-related programs.

This guide has been implemented in different scenarios at both the national and international levels, with the collaboration of the International Union of Forest Research Organizations (IUFRO), which is why we believe it will be of great help to those who seek to generate entrepreneurship ideas that ensure that we have more and better forests.

The section *“The importance of forestry-based entrepreneurship”* of this guide provides a general context about the challenges young people face in order to create enterprises and explains why it is necessary to invest in the youth. The Guide to Forestry-Based Entrepreneurship explains in five headings a working methodology for transforming ideas into enterprises.

Finally, the section *“What follows after creating an enterprise”* offers advice on how to keep an enterprise on the right track. The Annexes section provides information about our YFE initiative.

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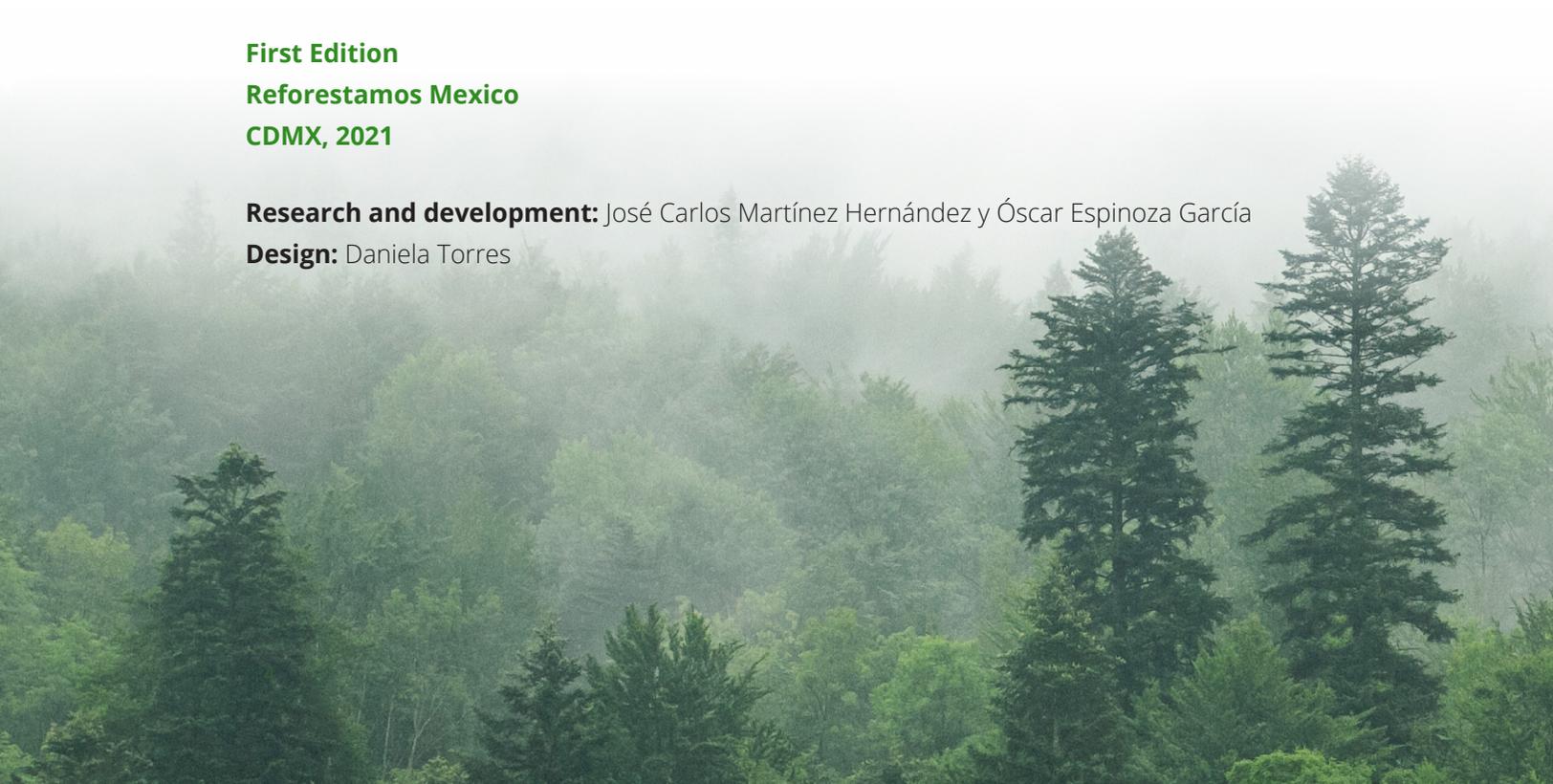
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## Collaborators

The *Joint IUFRO-IFSA Task Force on Forest Education* (JTF) is an initiative created in 2015 to strengthen the collaboration between the International Union of Forest Research Organizations (IUFRO) and the International Forestry Students' Association (IFSA). This relationship between researchers and students has helped us to identify some gaps and strengths in forestry education. In our work titled *Global Outlook of Forest Education* (GOFE), we recommend the need for strengthening entrepreneurship skills in forest engineering programs. This is why the JTF joined efforts with Reforestamos, and in particular with the Young Forest Entrepreneur program, to offer training in events related to the JTF and IUFRO to prepare future professionals who are capable of managing forests and their ecosystem services in a sustainable manner. Similarly, we hope this guide proves useful and that the enterprises that are created contribute to the development of the forestry sector in the region.

Sandra Rodríguez, **Coordinator (IUFRO)**

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## Acknowledgements

**The preparation of the *Guide to Forestry-Based Entrepreneurship* has been made possible thanks to the participation of diverse actors, all of whom recognize that forests are allies in achieving sustainable development.**

Thanks to Grupo Bimbo and BBVA Bancomer for contributing to the execution of the YFE program throughout the 7 years.

This acknowledgement is also extended to Cirklo, Esmex, Wave, Disruptivo, Betreep and Crea Potencial, who have helped us develop the adequate tools for forest entrepreneurs to ensure the sustainable use of forest resources.

Thanks to Proteak, Fundación Coca Cola, Biofin, UNDF and KFW, institutions that are close to the program and who opened their doors for teachers to share ideas about the challenges regarding forestry education. In addition, thanks to their managers for serving as jury in the finals of the YFE contest.

To members of Civil Society Organizations and Government, thanks for helping as evaluators and as advisers for the enterprises.

Thanks to the youth and the teachers of Latin America who participate in the training sessions where we validate the tools that we use, and who send their entrepreneurship proposals, and with whom we reformulate the program every year in order to increase its impact.

This acknowledgement is also to Alterna (Guatemala); AIDER (Peru) and Wave (Brazil), for believing in the impact of the program and for devoting resources to replicate it in their countries.

Lastly, we would like to thank the Reforestamos team for participating in the training of the youth throughout the seven years.



**José Carlos Martínez Hernández,  
Director of Innovation**

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# INTRODUCTION

**As a civil society organization, Reforestamos joins international efforts to integrate the Sustainable Development Goals (SDGs) within the framework of the Agenda 2030. From the position of the forestry sector, we have the objective of ensuring that we have more and better forests by collaborating with the following stakeholders: the private sector, communities, the youth, government agencies, and other organizations. Our diverse set of actions and platforms contributes to the transformation of ideas into opportunities for the conservation of forest ecosystems and the sustainable use of such ecosystems, so that they become the economic engine for people who live there. A competitive forestry sector has the possibility to eradicate poverty, protect the planet, and ensure prosperity for all.**

Forest management requires quality education to create innovative industries that offer decent work that guarantees gender equality, and that also promote responsible consumption. With forests, and people who live there, we take action for the climate; we protect terrestrial ecosystems and underwater life. Reforestamos' Young Forest Entrepreneur program came to fruition in 2013<sup>1</sup>; its objective is to generate business talent through the accumulation of technical knowledge from forestry students, as well as from social and entrepreneurship topics, in order to generate innovative ideas that have a positive impact on forests and people.

The *Guide to Forestry-Based Entrepreneurship* is the result of the experiences derived from seven years of implementing the Young Forest Entrepreneur program; it addresses the main skills developed in the training workshops, as well as the recommendations received from companies who contribute to our organization's project. The tools that we present here have been used by the attendees of the *International Forestry Students Symposium (IFSS)* organized by IFSA. In that sense, this document is a contribution to the training of women and men around the world who will be devoted to forest engineering.

<sup>1</sup> See Annex I. Young Forest Entrepreneur.

# IMPORTANCE OF FOREST ENTREPRENEURSHIP

**Reforestamos views forest entrepreneurship as an example that breaks the paradigms which assume that living in forests is not profitable; that people living in rural areas cannot create enterprises; that forestry professionals cannot engage in entrepreneurship; and that all enterprises harm the environment.**

However, a forest-based enterprise places forests and their inhabitants at the center. People who live in forests and who make their living from forest goods and services, develop their business skills while at the same time they protect their natural environment. Forest entrepreneurs, the majority of whom come from rural areas, design projects with significant economic, social and environmental benefits.

In that sense, **investing in young forestry professionals and their enterprises is a priority, because with that we guarantee the execution of innovative ideas that contribute to social development and forest protection.**

Forest entrepreneurship is relevant in the business world because the skills that are promoted are directed towards sustainability. Besides, in the process of associating entrepreneurs, investors, the labor market, the government, civil society and educational institutions, new business models are created, models that ensure better forests that benefit all people.

In the context of forestry-related programs and majors in the region, entrepreneurship skills seem to be lagging behind. Traditionally, forestry programs are focused on the use and processing of wood (Villarraga *et al.* 2015), which, even though it has contributed to the development of the sector, its contribution to the GDP is meager. Because of the immense goods and services that forests provide, the YFE program offers training in entrepreneurship as an option for young forestry professionals to be able to harness the services provided by forests. This guide strives to reach more young people and teachers to promote entrepreneurship as a skill that complements the academic development of future forestry professionals.



... for three hours  
... to the place above  
... Chiangmai  
... the wonders of  
... people - Jan.  
... shops - Take me!  
... cheese and  
... Take me!  
... all the  
... the inevitable  
... can  
... by hand...  
... after that.

# GUIDE TO **FORESTRY-BASED ENTREPRENEURSHIP**

## **What is a forest enterprise?**

**A forest enterprise, unlike others, is characterized by the generation of products and services that satisfy society's needs by means of the sustainable use of forest resources. In addition, it boosts the local economy by generating sources of employment.**

Therefore, it is not only an idea for generating money; rather, the business model includes explicitly the social and environmental aspects. A forest enterprise is the ideal means to achieve the SDGs and other initiatives such as the Decade on Ecosystem Restoration.<sup>2</sup>

## **Who is a forest entrepreneur?**

**A forest entrepreneur is somebody who places in the center his or her skills and knowledge to undertake an idea that generates social, economic, and environmental benefits by means of a sustainable use<sup>3</sup> of forest resources. A forest entrepreneur is, therefore, not defined by his or her profession.**

<sup>2</sup> See: <http://www.fao.org/news/story/en/item/1182090/icode/>

<sup>3</sup> Since 2019 companies have begun incorporating the concept of restoration, beyond sustainability, but it is a concept that is still being worked on in order to validate its inclusion in vFE.

The development of this guide was targeted at students of forestry-related programs and majors passionate about forests; these programs could be leveraged if social and entrepreneurship topics are included in their training.

## Values of a forest entrepreneur

A forest entrepreneur has solid values that originate from the pursuit of the profession, that is, they develop from constantly working in the forest. Even though each individual has their own talents, forest entrepreneurs are recognized by their skills and capabilities, and they stand out for the following reasons:

- **Persistence**

In order to achieve the objectives of an enterprise, it is necessary to stand firm against the demands that developing an idea entails, until it becomes a business. Working in the forest involves long working days, as well as long distance trajectories in poorly accessible places. In the event of possible obstacles, forest entrepreneurs know how to understand the problems and solve them in order to move forward.

- **Patience**

The steps involved in creating an enterprise in the forestry sector do not necessarily have the same rhythm as the steps involved for other businesses. Forests do not grow in one day, and being patient means waiting for the natural cycles to take place, and knowing when is the right time to obtain what the entrepreneur requires for their business.

- **Commitment to the community**

When a forest entrepreneur becomes aware of how to do business in a responsible manner, he or she knows that the priority is to maintain the harmony between forests and the people who live there. Only then will the environmental and cultural impact be beneficial for all. Contact with nature must be constant, as well as the commitment to the community.

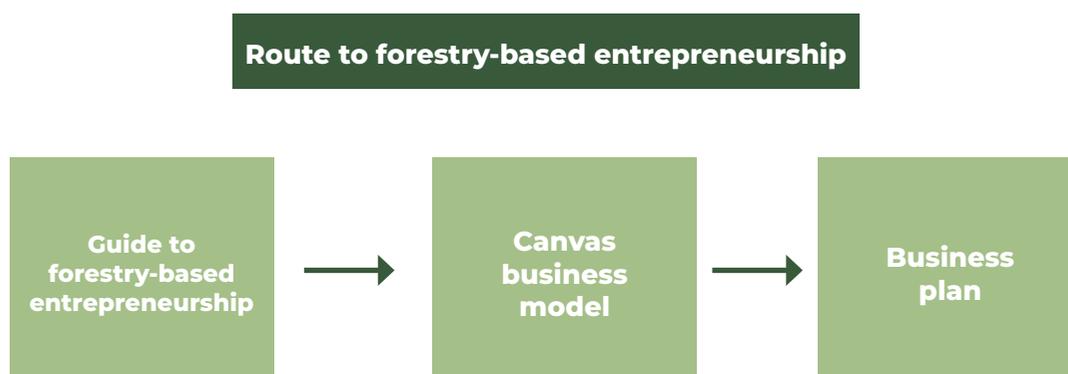
- **Love of forests**

Forestry professionals choose their profession because of the love they have towards the environment and the commitment they have to protect it. They keep this value when they create forest enterprises. They keep in mind that forests contribute so much to human well-being, and through their actions they ensure the protection of forests.

To these values we add five skills that forest entrepreneurs continuously strengthen: **self-esteem**, to believe in their capabilities; **leadership**, to inspire more people to join their idea; assertive **communication**, to be credible and trustworthy; **teamwork**, to collaborate with people from other fields and disciplines with the purpose of creating multidisciplinary projects; and **resilience**, to keep moving forward in spite of failure. Entrepreneurs recovering after challenges may be comparable to the environment recovering from disasters.

## Forest entrepreneurship tools

In the business world, regardless of the type, there are some tools that are commonly used to create an enterprise. The Canvas business model (Osterwalder and Pigneur, 2010) proposes a description of 9 aspects (customer segments, value proposition, channels, client relationship, revenue streams, key resources, key activities, partners and cost structure), to develop a business plan. The proposition of these authors is an international reference that could be of great help to forest entrepreneurs. However, it is common that young students of forestry-related programs and majors do not obtain in-depth business training from their educational institutions. As a result, questions about how to implement such a model arise frequently. This is how Reforestamos realized the need for training the youth on how to first get to know themselves, their passions, how to build a team, identify problems and generate solutions, and know about tendencies in the forestry sector, so that they gradually build their forest enterprises.



This graph shows that the Guide to Forestry-Based Entrepreneurship is the first step that will help you properly shape your ideas; you will then be able to use more advanced tools.

It is time to create an enterprise! The following tools will help you do it. To do it effectively, we advise you to first read the guide broadly to familiarize yourself with the process, and later in more detail so that you can implement it. To help you clarify some questions, we give you advice and also invite you to follow the links that will help you get to know experts in the forestry field: YFE collaborators and winners of our contest who will share their experiences in the training process that led them to become entrepreneurs capable of solving societal problems drawing from the opportunities that forests offer.

In **Tool 1: Mapping of the purpose**, you will find information that will help you define what you are passionate about and how to build a team with people that have similar purposes. In **Tool 2: Detection of needs**, you will learn how to listen, analyze and understand the needs of people in the place where you want to start your enterprise. In **Tool 3: Ideation**, the objective is to help you be creative and use the resources you have to propose business ideas based on forest resources to solve people's needs. In **Tool 4: Prototype and validation**, you will start to design and test your business proposal. Finally, in **Tool 5: Key axes of the project**, you will have what you need to detail your enterprise idea and, above all, highlight how you will impact the society with your ideas.

## Tool 1: Mapping of the purpose

### What is a purpose?

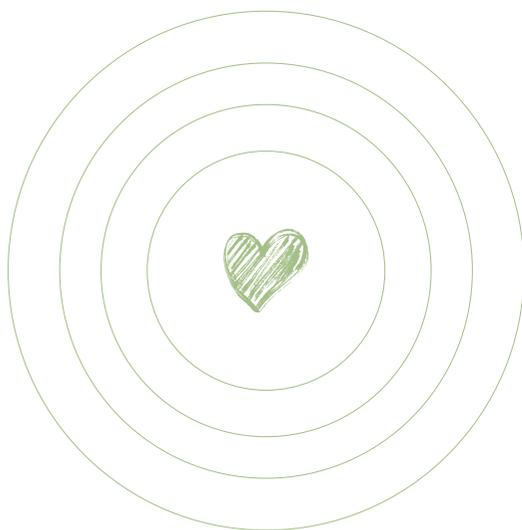
In the field of entrepreneurship, purpose is the objective you intend to achieve. To know it, ask yourself what you want to achieve. It is important that your purpose is aligned to your passions, because this is how you will have more energy and enthusiasm to achieve it.

Below we explain you how to use this tool:

#### 1. MAPPING OF THE PURPOSE

Think about the 5 things that you like the most and are most passionate about; write them in the diagram according to the level of importance:

Fill in the spaces thinking about the things you want to change within your context:



Name:
I believe in (vision of change):
I see a need of (in my community, school, family...):
And I think I can generate a different way of: _____
Through: _____

This exercise is a guide and the spaces shown do not limit your creativity. If necessary, do this activity as many times as you need until you have the best version.

- A)** The first part of this tool is about you. The heart that you see at the center is you. When considering what you are passionate about, on the line closest to the heart, you will write what you like to do best, and continue to do so successively according to the level of importance until you reach the fifth line.
- B)** I believe in: write about the vision of change, and mention how you would like to generate impact in the forestry sector; how you would like to see your community, your family, and your own self.

- C) I see a need: comment on the problems that you are concerned about the most in your environment, what situations you would like to change (it does not have to be related to the forest, these could be a different type of problems).
- D) Finally, in the last space, write those things that you can do and how you could achieve them in order to address the need you have identified. Use what you wrote under passions to write your statement.

Remember that this exercise is a guide and the spaces that are shown do not limit your creativity. Now that you know it, find other people that have concerns and/or interests similar to yours. We know that to build a team you would prefer your friends, but we encourage you to go a little farther to get acquainted, and find ways to collaborate and make partnerships, with people who share the same vision.

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### Experiences of young forest entrepreneurs



## **Knowing what you like is the first step to creating an enterprise.**

Visit the Young Forest Entrepreneur website and Facebook page, where you will find more support material to create an enterprise based on your purpose:

<https://www.emprededorforestal.org/>

<https://www.facebook.com/emprededorforestal/>

Also, get to know Abies Longboard's passion that allowed them to have a successful enterprise:

<https://www.emprededorforestal.org/experiencias>

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### YFE Advice



## **Break the preconceived schemes of forestry professionals and find new ways of being one.**

Dare to do what a forestry professional  
traditionally "shouldn't do."

## **Tool 2: Detection of needs (understanding the problem)**

It is time to go deeper into some aspects that will help you design your enterprise. With the team that you have already built, you will do interviews in order to get to know and to understand the problem you detected previously. There are other methods, but take advantage of the fact that you are close to those affected by the problem that you want to solve.

**Remember to always delegate activities and responsibilities to the members of your team.**

The interviews are a tool that will allow you to gather data to generate solutions. Here we will demonstrate how to do them with your team.

<b>Rules for the interviews</b>	
	<p><b>Apprentice's mentality</b> Go to every interview with an apprentice's mentality, forget about everything you know or you think you know and avoid making interpretations.</p>
	<p><b>Listen</b> Listen much more than you talk, remember that your objective is to learn, not to inform or amaze.</p>
	<p><b>Dig deep</b> Try to get to the bottom of what they share with you, asking "why" as many times as needed. Try to share stories about the experiences of your users.</p>
	<p><b>Do not present solutions</b> At this stage do not try to offer any solutions yet, the focus is on understanding what the user really needs and the difficulties or challenges they face.</p>
	<p><b>Define roles</b> Ideally, one person should conduct the interview, another should focus on note taking, and another should observe and take notes on the body language in order to have a better understanding of the situation.</p>

There are some tools that will help you during the interview to obtain more data; it is important that you elaborate well the questionnaire you will use. Write the questions that you would like to ask to know more about the needs of the environment. There are trigger questions, that is, those that will invite your interviewee(s) to describe a topic better. You can include some of the following questions:

- How do you experience (the situation you identified)? For example, what do you think about the fact that rivers are contaminated? How does the fact that there is insufficient firewood for cooking affect you?

- How do you do (the activity to which you want to propose changes)? For example, how do you extract wood? How do you extract mushrooms for food?
- What do you use for (the activity on which you want to have an impact)? For example, what foods from the forest do you cook? What materials do you use to produce furniture?
- What do you want to achieve when you use (the product that you want to improve or replicate)? For example, what are you looking for when you use this plant? What do you consider a good cream, food, or another product that you want to analyze?

These questions are only examples; remember that you need to adapt the questions to the natural and cultural environment within which you will develop your enterprise. Sometimes people do not want or cannot answer the questions; in that case, there are other strategies that will help you probe farther. These are some exercises that you can ask them during the interview. To do them, have material available such as paper sheets, pencils and colors that your interviewees will use during the exercise. Similarly, the team will have notebooks to take notes on what they observe and what is said.

### **Show me**

If you are in the interviewee's environment, ask them to show you their objects, spaces, tools or ask them to perform the processes. Take pictures and notes.

### **Draw**

You can do a map or diagram based on what they tell you, and then you can show it to them to get more details.

### **Think out loud**

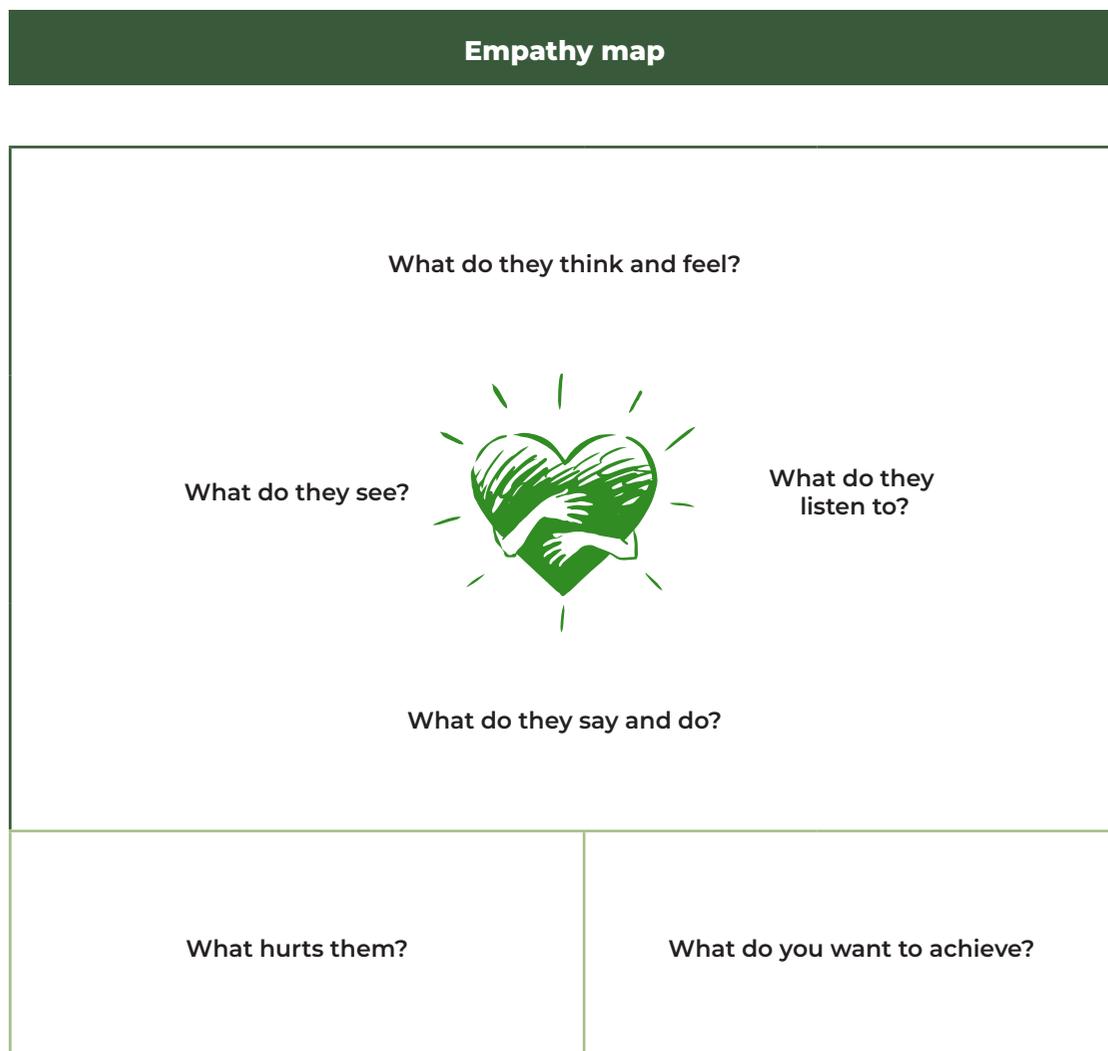
Ask them to describe out loud what they experience, and the task they perform. Pay close attention to their reasoning.

Remember to prepare your questions. Now, with your team, you will carry out the interviews. You should select the people to interview. It is recommended to have at least ten interviews in order to have the minimum idea about what is happening in the environment. It is not necessary that the whole community participates, but it is necessary to have a representative sample of different people that are affected by the problem you observed. In that sense, it is recommended to interview students, mothers, fathers, teachers, and elderly people, among others. Find the adequate place and time for this exercise. Ask when they can participate and schedule at least one hour with each member.

Once you have all your interviews, it is time to compile the data to analyze through the empathy map<sup>4</sup>. This part of the tool involves ordering the main ideas that come up in the interviews to

<sup>4</sup> The empathy map we present comes from Dave Gray's original idea, creator of the Empathy Map. For more information visit: <https://gamestorming.com/empathy-mapping/> and <http://www.xplanner.com/>

describe an ideal client based on their feelings and activities. This will help you better understand your target audience to offer them products that are aligned with their needs. Below, you will see an example of an empathy map with explanations on what should be registered under each space.



With the notes you generate from the interviews, and as a team, fill in each of the quadrants. It is recommended that you use paper for adhesive notes (Post-it).

- **What do they think and feel?**

What really matters to them, what their main concerns and aspirations are.

- **What do they listen to?**

What people in their environment tell them: family members, co-workers, and other people from the community.

- **What do they see?**

What they appreciate the most in their environment.

- **What do they say and do?**

Their attitude and behavior in public and towards others, the way they talk, and their body language.

- **What hurts them?**

The fears, frustrations, obstacles, and challenges they face.

- **What do they want to achieve?**

Their desires and needs.

You can draw the empathy map on a big piece of paper where you record with your team as many ideas as possible and, that way, you can keep track of the process you are leading. If you do it on a blackboard or dashboard, it is important that you take clear pictures of the work you do so you do not lose important details.

**Often, young foresters forget to ask “what hurts you?” and “what do you want to achieve?”**, and they stick to technical questions. Remember that if you want to have a successful product, you should think of satisfying the needs of your future client/user of the product or service you develop.



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### Experiences of young forest entrepreneurs

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## Here you can find out more about a youth enterprise from Peru that is

solving community problems through forest entrepreneurship:

<https://bit.ly/2lyZ7v2>

<https://bit.ly/2IDDFm>

<https://bit.ly/3cK5hGy>

<https://bit.ly/38HynmJ>



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### Other resources

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TED Talk: Want to help someone? Shut up and listen.

<https://www.youtube.com/watch?v=q7UmSGRd1w0>

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### Advice YFE

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Seek help from people within your surroundings (school and community, for instance); this will help you achieve a clearer vision of your enterprise.

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Before we continue, we need to clarify some concepts.

**Client:** the one who pays for a product or service.

**User:** the one who utilizes the product or service.

**Beneficiary:** the one you benefit with your enterprise.

It is important to note that the one who buys your product is not always the one who uses it. For instance, a device for fires is paid by the company or government, but those who use it are the company employees. Likewise, the one who pays is not always the one who benefits from your project. For instance, if you create a group of women to produce a certain type of food, you are helping them, but you are satisfying the need of the one who pays. Sometimes it is the same person. If you advise producers on the establishment of forest plantations to solve the lack of fuels, the producer that pays for that advice is also your recipient.

For this reason, you should interview different people. Further down you will identify and define your client, user, and beneficiary. For now, only keep this in mind so you can generate more ideas with the following tool.

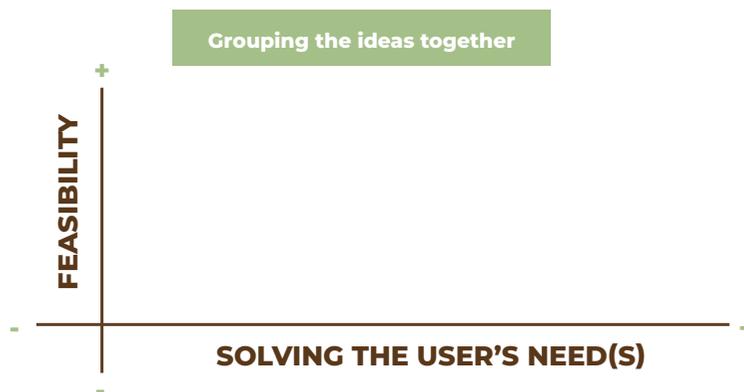
### Tool 3: Ideation

After analyzing the data from the interviews and the empathy map, you now have sufficient information to generate ideas. For this exercise, there are very easy techniques that will help you define the best ideas. First, with your team, write down all the ideas that you think can solve the problem.

Keep these rules in mind:

Reglas de ideación	
	<b>Open mind</b> At the beginning, try to generate as many ideas as possible. All ideas are valid during the session, so keep an open mind to what is proposed.
	<b>Make it visual</b> Try to depict every idea on an adhesive sheet (post-it) and share it with all the participants.
	<b>Contribute to the ideas of others</b> Avoid disqualifying ideas, instead of “no” or “yes but”, say “yes, and”.
	<b>Reality-based approach</b> Always keep in mind your user needs that were established and keep your ideas aligned with them.

With your team, write a list with all the ideas, group together those that are similar, and then distribute them in the next graph. **Remember to listen to and discuss the opinions that the team members have in relation to this exercise.**



As you can see, there are two lines. The first one is “Solving the user’s need” which will be variable “X”. The second one is the “Feasibility” which corresponds to variable “Y”. Both have the plus and minus signs, that make reference to the intensity to which the idea solves a need and how feasible it is to do so. With your team, take one of the ideas and ask if this idea solves the user’s need, because the more it solves it, the farther right it will go; if it is less it goes towards the left.

After placing that idea in the “X” variable, again ask yourselves to what degree it is possible to do it in the short term. The more possible it is, the higher it goes; the less possible, the lower it goes.

This exercise should also be done with the rest of the ideas. In the end, those that lie all the way up and to the right are the ones with a higher probability of solving the user’s need and more feasibility, which makes them the best options to be handled by your team.

Now that you have the best ideas, complete this table to organize the information.

<b>Product</b>	<b>Resources (that I have)</b>	<b>Actions (what I want to do)</b>
1.		
2.		
3.		

Write down, with your team, the three best ideas that you selected in the first column. In the second one, write everything you have got at this moment to do it (for instance, materials and economic and human resources). If you know that soon you will receive something that will support your enterprise – money, for example – do not write it on the list until you really have it. Finally, in the third column, suggest a simple working methodology to create this product.



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**Experiences of young forest entrepreneurs**



**This task is crucial for defining  
an innovative proposal**

The young forest entrepreneurs from DUNOPSA share their knowledge here:

<https://bit.ly/39GjQZD>

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**YFE Advice**



Identify how you solve the problem with your proposal.

What makes it different from a research project?

## **Tool 4: Prototype and validation**

The previous three exercises have at least generated a solid idea of a product or service you will sell. Now it is necessary to test it to know if it is really functional and meets the needs of your future clients, users, and beneficiaries. To accomplish it, make a prototype, that is, a first version of the product that you will sell. This is a model you will design with the resources you have at hand. The best version does not always happen at the first attempt. The winners of Young Forest Entrepreneur 2018, Horizon-skycontrol, in their prototyping exercises, used the following development phases:

- Technical validation
- Functional prototype
- Commercial model in construction

From the three final ideas of the previous tool, which one is the simplest to do a prototype? You can define it with the following table:

<b>BEFORE</b>			
What do we want to test?	Who do we want to test it with?	How are we going to test it?	
<b>DURING</b>			
How are they interacting with the prototype?		Relevant user reactions	
<b>AFTER</b>			
What do we need to eliminate?	What do we need to increase?	What do we need to limit?	New ideas:

The previous table is divided into three stages, BEFORE, DURING, and AFTER, and each has questions that you need to answer with your team.

## BEFORE

- **What do we want to test?**

Name of the product or service

- **Who do we want to test it with?**

Describe the group of people that will be your ideal clients. For instance, if you will sell kitchen products, the test group could be those who have a food business.

- **How are we going to test it?**

Describe the activities you will do to test your prototype. Think about whether you will invite them to your workshop or if you will go to a different place. It is recommended to create an agenda for this activity which will also be in teams.

Once you have the answers, decide which of the three ideas you can prototype with your team.

### How to prototype?

For better understanding, listen to Berssa García giving details on how to do it. The following videos are in Spanish; however, you can easily find videos in English about this online.

<https://bit.ly/2Q5xEVT>

<https://bit.ly/339LFaE>

## DURING

Once your prototype is ready, it is time to test it. When taking it to your user (the person who will use it), get information to answer these questions.

- **How are you interacting with the prototype?**

Register how the users feel about your prototype. For instance, if you want to sell a technology product or service and you are exhibiting it in a fair, take notes of the questions they have and answer them.

- **Relevant reactions of the users**

Observe their gestures, listen to their opinions. For example, if you want to sell wood essences and oils, take notes of their reactions when smelling your products.

## AFTER

It is time to improve your prototype! Based on what the people who tested your prototype told you, ask your team the following questions:

- **What do we need to eliminate?**

Based on the answers to the previous questions, reflect upon what was not useful. For instance, if you sell a product that needs to be packaged and the package turns out to be faulty, change it.

- **What do we need to increase?**

If there was something that your clients liked about your product or service and they suggested that it is necessary to reinforce it, do it. It is also possible that you notice details that you initially did not contemplate; take note of those.

- **What do we need to limit?**

It is possible that you notice that there is something that seems excessive; maybe the quantity of the product you sell, because it is possible that its expiration date is short.

- **New ideas**

All of the previous questions gave you the opportunity to know how your ideal client feels about your products. This experience gives you the opportunity to generate new ideas and perfect your enterprise.

Now apply it to your prototype to improve it; you can approach your user again until it is functional and attractive, so they are encouraged to pay for your product or service. This is called iteration.

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Experiences of young forest entrepreneurs



**The creators of the *Turbo-resinador* are  
an inspiration to prototype your ideas:**

<https://bit.ly/3gbyRWI>



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**YFE Advice**

Do not expect to have something perfect immediately.

Test your product or service as soon as possible with

your friends, colleagues, schools and community



## Tool 5: Key axes of the project

After applying the exercises from the four previous tools, it is time to highlight the main aspects of the project, especially the impact.

Forest enterprises have a significant social and environmental impact, so much that they have a direct impact on the Sustainable Development Goals (SDGs); if you properly define how your idea contributes to the SDGs, its impact will be clearer and more relevant. Before testing the tool it is recommended that you get more information about the SDGs. You can find it by clicking the following links: <https://n9.cl/y602> and <https://bit.ly/39lcPHM>.

We now invite you to complete the following table with your team, which will help you summarize your project clearly and concisely. It would be great if you could fill this out on one sheet. To help you fill out the table, you will find an explanation of each of the different sections further down.

<b>Mission of change</b> What is the purpose of your project?		<b>Product or service promotion</b> Key partners	
<b>Problem</b> What is it that you are trying to solve?	<b>Solution</b> How are you going to solve it?	Production and sale price	
<b>Social value proposal</b> What value are you offering to your user?		Promotional venue and channels	
<b>Sustainable Development Goals</b> Which of these goals is your project aligned to?		<b>Positive impact</b> Who else benefits from the project? Are there other potential opportunities to generate profit?  <b>Negative impact</b> What risks or damage associated with the project could there be?	
<b>Cost structure</b> What costs do you need to consider?	<b>Financial sustainability</b> How are you going to generate profit?	<b>Surplus</b> In what are you going to invest a percentage of the profits?	

A continuación, te damos algunos consejos para llenar los recuadros de la tabla.

We advise you on how to complete the boxes in the table.

- **Mission of change**

- **What is the purpose of the enterprise?**

- Describe the objective you have; this needs to correspond to the needs of the forest environment where you will establish your enterprise.

- **Problem**

- **¿Qué es lo que estás tratando de resolver?**

- Describe cuál es el problema que hay y cómo afecta a las personas en su desarrollo.

- **Solution**

- **How are you going to solve it?**

- Describe how you are going to help reduce the problem you observed. Detail the steps you will follow to achieve this.

- **Social value proposal**

- **What value are you offering the user?**

- Describe how the community and the forests will benefit.

- **Sustainable Development Goals**

- **Which of these goals is your project aligned with?**

- Forest enterprises are known to contribute to achieving all SDGs. Check these links again in order to identify how your enterprise aligns with the global agenda: <https://n9.cl/y602> and <https://bit.ly/39IcPHM>

- **Product or service promotion**

- **Key partners:** list all people who can help you in the creation of your enterprise and what their role will be. It is not about your team, but about other entrepreneurs, for example.

- **Production and sales price:** determine what the cost of your product is and how much you want to sell it for.

- **Promotional venue and channels:** the venue refers to the main place where your clients will find your products; the channels are the secondary places where you will also sell them.

- **Promotions:** detail the promotions and discounts.

- **Cost structure**

- **What costs do you need to consider?**

- Detail the areas where you will invest: inputs, payroll, advertising, others.

- **Financial sustainability**

- **¿How are you going to generate profit?**

- Describe the ideas that you have to sell your product.

- **Surplus**

- **In what are you going to invest a percentage of your profit?**

- You can invest in more input or technology that helps the automation of your products. However, investments not only represent an economic profit, but also social reputation; because of that, some entrepreneurs invest in social actions in the environment they live in.

- **Positive impact**

- **Who benefits more from the project? Are there other potential opportunities to generate profit?**

- List the groups of people that will benefit more from the enterprise; for instance, mention if you will offer employment to a lot of people, and if you will generate secondary jobs in your community. Similarly, analyze if there is a possibility of establishing new businesses.

- **Negative impact**

- **What risks or damage associated with the project could there be?**

- When using forest inputs, you need to be conscious of taking care of them.



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### Experiences of young forest entrepreneurs

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To complete all the boxes,

you can find explanations from experts that will guide you here:

<https://bit.ly/39GLZQy>



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### YFE Advice

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Use simple language. Explain the project in such a way that a child can understand you.





## What follows after creating an enterprise?

**Remember that creating an enterprise is a process, so maybe you finished the five tools and months later you have a better understanding of the issue or other ideas have emerged. Dare to incorporate them to change your initial idea; what matters is solving the issue. Young people from other parts of the world who attended the International Forestry Students Symposium 2018 in Mexico have already used this guide to create their enterprises. Meet them on this link <https://bit.ly/2YEoWIM> and start to generate support networks.**

Once you have your prototype, it is possible that there is someone who wants to buy it; seize the opportunity! This way you will start knowing the needs of your client, and you will have income that you can reinvest in your enterprise.

As a next step, do an online search for calls for incubators and prizes for entrepreneurs, and apply if feasible. This way you will obtain advice on how to improve your product or service. On the forest entrepreneur website you can find such information, but search in other places such as offers in your state or country.

Keep looking for people from whom you can get advice in order to improve your business idea, so it becomes a real enterprise; remember the forest entrepreneur values and be patient.

If you have questions or comments, do not hesitate to contact us at this e-mail address: [\*\*contacto@emprendedorforestal.org\*\*](mailto:contacto@emprendedorforestal.org)

# ANNEX I



## YOUNG FOREST ENTREPRENEUR

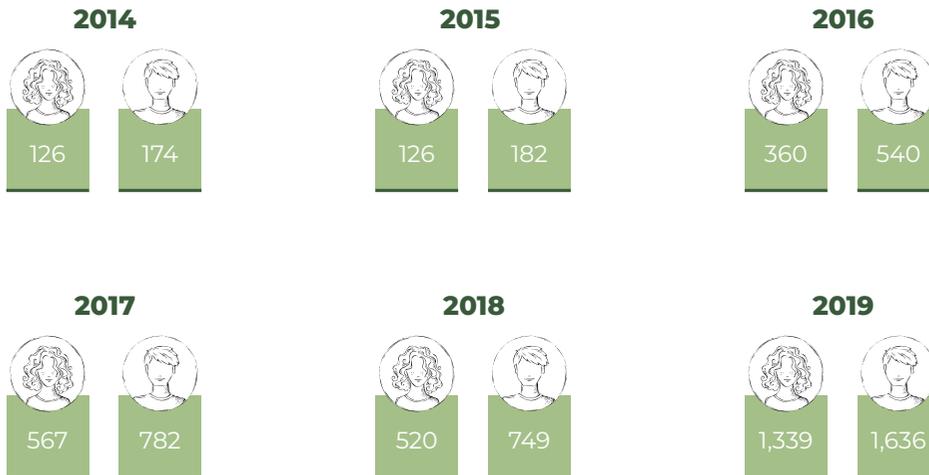
Mexico is characterized by a young population whose employability is still unstable despite the fact that there are increasingly more young people with formal jobs, according to the National Survey on Occupation and Employment 2019 (Inegi, 2019). The Mexican government, in turn, incentivizes entrepreneurship by means of the National Entrepreneur Institute (Inadem). According to their research, enterprises related to timber products are found in Baja California, Durango, Michoacan, Oaxaca and Tlaxcala, while forest diversity is spread all across the country. Likewise, agro-industrial enterprises are represented across all states.

The **Young Forest Entrepreneur program** was established in **2013** to address these issues. The program has focused on ensuring that, by **2030**, educational forestry programs at the middle and high levels in Latin America train professionals to undertake projects related to these programs. The projects, in turn, are expected to contribute to the sustainable development of forest ecosystems, and to have influence on public policies in order to protect their natural resources.

In the YFE program, we have promoted projects that foster labor market inclusion; this can be seen in participating projects that present internal strategic alliances, which is to say, they create support networks within the same community where they are developed. Our goal is for forestry students to create enterprises where they apply their knowledge, skills, and talents in a way that they generate social, environmental, and economic wellbeing that benefits people and forests. After seven years in this program, we have gradually increased our impact.

### Participating students

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**7,101**  
STUDENTS  
have received training  
from the YFE program to participate  
in the contest



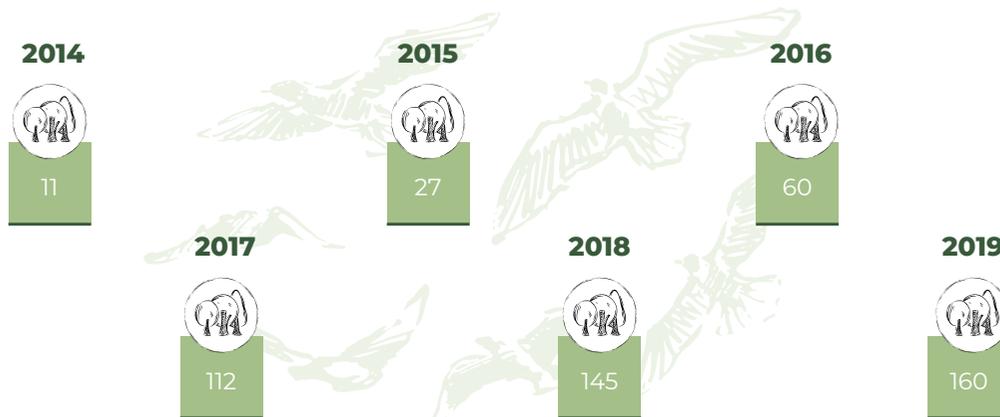
### Teachers



**206**  
TEACHERS  
have received training  
in the YFE program and  
now collaborate with the  
young forest entrepreneurs



### Projects



### Universities

There are  
**150**   
Universities in LATIN AMERICA  
with forest education programs.



We have worked with

**75**   
OF THEM



## Countries

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## International alliances

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AIDER, Perú: [www.aider.com.pe/](http://www.aider.com.pe/)

Alterna, Guatemala: [www.alterna.pro/](http://www.alterna.pro/)

Wave Group, Brasil: [www.br.wavegroup.be/](http://www.br.wavegroup.be/)

The numbers shown represent different challenges. **We work to narrow the gender gap, that is, we want more women participating in the YFE program**, either as young women who propose a project or as teachers who collaborate in their training. In that sense, we also face the challenge of having more teachers trained to teach entrepreneurship topics, which implies a greater participation in the universities. **Hence, we also work towards having more educational institutions from the private sector in this initiative.** During the time in which the YFE program has been implemented, Reforestamos has sought to ensure that there is a transfer of knowledge. With that we intend to generate a change in Latin America's forestry education; we need more young people with a forest entrepreneurship vision to create high-value proposals on the sustainable use of forest resources.

After seven years of the YFE program, during which we have worked with young forestry students, conversed with their teachers and directors, and interacted with their communities, the most common comment we heard was that forestry professionals cannot create enterprises because their role is that of technicians and not of doing business. We realized that we are not used to seeing solutions coming from “the grass-root level”, that is, from students themselves. Nevertheless, we know from experience that, if people create and build their ideas with the adequate tools, they can generate a positive impact in forests and their communities. Every day we see more cases of young forest entrepreneurs that generate a change in their region by means of forestry-based enterprises.



## Bibliography

Conafor

(2019). *Strategic Forest Program for Mexico 2025*. Mexico City, Mexico: Conafor.

Inadem

(2020). Priority sectors. Consulted on 21/05/2020 in:

<https://www.inadem.gob.mx/sectores-estrategicos/>

Inegi

(2019). *National Occupancy and Employment Survey 2019*: Mexico City, Mexico: Inegi.

FAO-CATIE

(2016). *Forest entrepreneurship development by communities. Practical guide for forest community promoters in the American tropics*. San Jose: Costa Rica: FAO-CATIE

Ollin, Jóvenes en Movimiento A.C.

(2016). *National Index of Youth Participation 2015-2016*. Mexico City, Mexico: Ollin.

OIT

(2020). *Global Employment Trends for Youth 2020: Technology and the future of jobs*.

Consulted on 21/05/2020 in:

[https://www.ilo.org/global/publications/WCMS\\_737657/lang--en/index.htm](https://www.ilo.org/global/publications/WCMS_737657/lang--en/index.htm)

Osterwalder, A. y Pigneur, Y.

(2010). *Generation of business models*. Barcelona, España: Deusto.

Villarraga-Flórez, F., Rodríguez-Piñeros, S. and Martínez-Cortés, G.

(2015). "Social Science in Forestry Curricula: A Case Study of Colombia Forestry Programs". In *Sustainability, MDPI, Open Access Journal, vol. 8 (1)*, pp. 1-10.

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