A Political-Economy Orientation in TVET's Project-Based Learning Methodologies for Sustainable Development

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Abstract

From a capability approach, the Technical and Vocational Education and Training (TVET) component of the global agenda for sustainable development represents a major tool for cultivating the equitable agency capacity of individuals to participate in the labor market and to rethink their reality in and out of work, modify it, and make it more suitable to their desired development scenario.

In this sense, some teachers use project-based learning methodologies to show their students how to formulate and put development alternatives into practice. This introduces students to the experiences of agents of change and active development initiatives.

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This chapter seeks to contribute to these efforts by sharing some conclusions drawn from an empirical research on development initiatives in different countries. They concern some of the challenges and constraints that these initiatives face to be sustainable, as well as the strategies that they use to confront such challenges.

These reflections which teachers could incorporate into their project-based learning methodologies place special emphasis on political-economic factors that influence how objectives are defined and how the development agenda is implemented. We analyze factors that influence the decision-making process, power relations, and the potential of each individual or group to implement and negotiate their initiatives under conditions of equity.

Introduction: TVET as a Tool for Cultivating the Agency Capacity of Students Toward Sustainable Development

Technical and Vocational Education and Training (TVET) has been greatly influenced by the imperative of sustainability, the qualitative element of the global development agenda. Many education stakeholders evaluate TVET in terms of the skills and knowledge it transfers to its recipients, ensuring them employment opportunities and satisfying the needs of the labor market.

Many others consider that TVET also has potential to aid the forging of a sustainable model of development, by helping the students rethink the world of work so that they can modify it and render it more suitable to their desired development scenario (Fien and Wilson 2005; Maclean and Pavlova 2014; Tsang 2012; UNESCO-UNEVOC 2006). Such approaches have been causing "a shift in focus from short-term to longer-term development needs, from expansion of systems to their transformation, and from contributing to economic growth to an added concern for social equity" (UNESCO 2012, pp. 1–2).

The gradual reconceptualization of TVET, emphasizing the need to improve its **quality** by making it more compatible with the aspirations underpinning sustainable development models, suggests that it can be a useful instrument to cultivate what the capability approach calls people's capacity for *agency* (Nussbaum 2012; Sen 2000), that is, a person's actual power to:

1. Make effective use of available development opportunities (education, health, etc.) throughout their lives – according to their own aspirations and needs
2. See themselves as active agents and not only passive beneficiaries – with interests, responsibilities, and initiatives to transform societal arrangements to pursue and safeguard opportunities for themselves and the community

Sustainable development **requires** enhancing people's capacity for agency.

It requires **development initiatives** have the capacity and conditions to create interventions that are actually sustainable.

This is true for the development initiatives of individuals, local, national and international governing bodies, and organizations of all types and scale. It is also the case for initiatives which contribute to this process from distinct domains, for example, in combating poverty, health, education, and environmental protection.

Sustainable interventions require political and financial resources, know-how, work, as well as the socialization of ideas, experiences, and training. This applies not only for initiatives already underway but also for those about to join work teams or formulate new initiatives – the recipients of TVET.

The skills, competencies, and knowledge acquired through TVET programs should include those that foster people's capacity for agency. Such programs should motivate students to learn how **development initiatives** that affect their lives or aim to change their conditions are put into practice, how to identify the political-economic factors that make sustainability difficult, and how to tackle such problems.

Learning from the achievements and difficulties of these experiences will strengthen students' capacity to influence the development process in a more sustainable way, through any of the labor areas they join.

Methods Used to Introduce Students to Alternatives for Development Change and Stimulate Agency

TVET educators from different fields (schools, universities, workshops, companies, etc.) use versions of **project-based learning** that link the learning of skills, knowledge, and competencies with civic and critical education. These help prepare students to get involved in the realities and possibilities of the human development field. Normally, this is through studying a problem of social interest, doing research on the problem, writing a proposal for its solution, and sometimes even carrying out an intervention.

One of these methods is service learning, which is based on the assumption that the preparation of students should be achieved through combining service with learning, by working for the benefit of the community. Students are asked to analyze the problems of a community and then devise and implement potential solutions. However, according to Chang (2015), this can become top-down and elitist unless teaching is embedded "with community members and spaces toward collective self-determination" (p. 31).

Other project-based learning methodologies such as place learning, experiential learning, or field trips rarely involve action research work with communities and are usually rather passive. Yet they often share with service learning the conviction that preparing a student to become an agent of change requires that he becomes familiar with the practical, concrete, and subjective experiences that complement what is discussed in the classroom.

Such experiences allow an abductive learning process, constructed from inter-leaved processes of deduction and induction, in other words, a process that

allows the continuous transition from particular experience to theory and vice versa (more on these methodologies in Buck Institute for Education 2017; Claiborne et al. 2017; Edutopia 2017; Evers and Wu 2006; The Glossary of Education Reform 2013; Wilderdom Outdoor Education 2005).

In this way, schools and vocational training centers around the world formulate programs and activities linked to development initiatives often motivated by national curricular policies (Eurydice 2012; Furco 2010; Skinner and Chapman 1999). These programs (which are of differing duration, depth, and even level of commitment) seek to familiarize learners with the challenges they will face when building viable and sustainable alternatives, generating empathy with the initiatives' ends and preparing them for that vocational choice.

Students from the K.R. Mangalam School in India, for example, were brought to talk with students from a school for disadvantaged children and were invited to donate school supplies to encourage their capacity for charity and empathy (K.R. Mangalam World School 2014).

In Ireland, Schools Across Borders invites students to research issues of local or global interest such as poverty, child labor, and environment. Students then identify development initiatives that work toward solving these problems, establish contact with their leaders (e.g., scheduling online calls), and develop outreach projects among the student community (Schools Across Borders 2013).

In a similar vein, Kids Go Global Canada invites students to access an online platform where nongovernmental organizations that welcome their participation detail their work and projects. Students have to choose an initiative, explore the issues, get in touch with the NGO, and help it get financial support by devising promotional campaigns (Kids Go Global 2017).

The United Arab Emirates Sustainable Schools Initiative promotes hands-on school field trips offered by supporting organizations (public and private) that enable students to apply transdisciplinary and problem-centered approaches to reduce the national environmental footprint (Global Environmental Education Partnership n.d.).

The MediAction Project in Morocco, in partnership with local associations, established five training centers to teach young people mediation and dialogue skills to aid social cohesion (Akar 2016).

Some higher education institutes also partner with development initiatives, offering students the opportunity to practice their skills while serving the needs of those initiatives. Graduate students of the Milano School of International Affairs, Management, and Urban Policy, for example, collaborate with local organizations and communities in New York City. In this way, they put the participatory facilitation and dialogue skills previously learned in their theoretical courses on participatory community development, popular education, and critical pedagogy into practice (The New School Collaboratory 2016). A course at the Ibero-American University in Mexico City used to guide its law students to offer free consultations to civil society organizations on how to manage tax deductibility and, through this, learn about the challenges involved in practicing their profession in this area of development (Fortalece Legal n.d.).

These are just a few examples of the different ways TVET recipients are brought closer to the experiences of agents of change who, through their initiatives, are proposing their own version of what sustainable development should

mean. These approaches seek to reinforce different knowledge, skills, and abilities (empathy, professional development, etc.) that, ultimately, are expected to increase students' **capacity** for **agency** to change the process of development for both themselves and the world, once they are incorporated (or reincorporated) into their working life.

In this sense, these activities and programs would have an important added value for the enhancement of the agency capacity of the learners, if they were also used to acquaint them with the factors that impinge on the agency capacity (power) of the visited initiatives to effectively provide sustainable development alternatives and with the means by which they sort them out.

The Importance of Creating Awareness About the Agency Capacity of Development Initiatives

As implied in the main international consensus documents on this matter (see, e.g., UNCED 1992, or WCED 1987), **sustainability** is a quality that can describe the global process of development when the initiatives through which it is carried out offer solutions that are:

1. *Integral*: that respond to the different developmental contexts in which they are inserted and where they have an impact both locally and globally (political, environmental, social, economic, cultural)
2. *Relevant for all*: relevant to the needs, views, interests, conditions, and working approaches of the different actors involved, in both present and future generations
3. *Equitably appropriated*: that recognize the right, capacity, and responsibility of the different actors affected by them to decide and control the processes of design, implementation, and evaluation of the initiatives

However, though most development initiatives address issues of interest to the international community (e.g., lack of access to education, pollution, poverty), the challenges they encounter to achieve sustainable results in the terms described above are quite different. Initiatives vary in their roles, responsibilities, philosophies, working approaches, and in the actors involved (with their distinct needs, priorities, interests, and perception of problems). They also vary in the resources and incentives they have available, in the socioeconomic, cultural, and environmental contexts with which they have to contend and in the legal and socioeconomic framework in which they have to operate.

In addition to these contextual structures and factors, the agency capacity of development initiatives to provide sustainable solutions also tends to be constricted by their strong reliance on external financial resources. These, in addition to being scarce, are often accompanied by a series of conditions that limit their authority on the design and implementation of their own projects. For instance, some funders, in order to address their own accountability pressures, establish funding criteria that are not necessarily relevant to the local agents' interests; another example are budgets

that favor certain areas of development to the detriment of others (making it difficult to implement integral interventions), etc. (Blaak 2013; Gillies 2010).

Moreover, the processes of decision-making, management, and implementation of all development initiatives are affected by external political actors and regulations. Often these share interests with and are sources of support for the initiatives; other times, either due to group interests or to the growing tendency to make vertical and standardized policies in order to guarantee minimum gains in the procurement of general rights, the external actors end up forcing the initiatives to adjust their interventions to criteria that are not always adequate to the context of implementation, or are not in line with the values and aspirations of the beneficiaries, making it difficult to implement interventions that are relevant for all. This is what happens, for instance, with many standardized and punitive evaluations that aim to achieve global sustainability goals (Jansen 2012; Mason 2011).

As such, this **political-economic** context often forces development initiatives into a permanent state of negotiation, cooperation, and conflict, during which decisions are taken about the design and implementation of their projects (Leftwich [2006], cited by Kingdon et al. 2014). This, in turn, impacts the sustainability of initiatives.

The political-economic context frequently pushes initiatives to develop ways to compensate for the challenges posed by their **dependency** on external factors and actors by increasing their capacity to:

(a) Decide what is in their best interest and what is not
(b) Identify the problems they face, given their specific context, and the available resources – human, financial, structural – to bring about the necessary changes to solve them
(c) Execute their projects in harmony with the needs of the sustainable development agenda at the global level

Thus, the invention and implementation of these mechanisms are crucial to improve the initiatives' agency capacity (their de facto potential) to solve their problems in a sustainable way (Szekely 2015).

This is why, when TVET students learn about the challenges faced by development agents while formulating and implementing sustainable solutions and with the measures they devise to overcome these challenges, their own capacity for agency is enhanced. They can then transform the labor market through existing or self-created initiatives toward sustainable development.

What to Observe During Project-Based Learning Exercises and Field Trips to Development Initiatives to Create Awareness of Their Agency Capacity

This section outlines issues that might be observed during project-based learning exercises and field trips to development initiatives, issues that can help students learn how initiatives deal with their dependence on external factors, actors, and resources and build their agency capacity to ensure sustainability.

These reflections draw on the results of a study, carried out between 2012 and 2017 (Study sources of support: https://wp.me/p8EZH0-Qy), on the experiences of development initiatives working on diverse areas (rural development, education, environmental procurement, social participation, tourism, etc.) which operate in different parts of the world, namely, The Solar Night Schools Program operated by the Barefoot College in India (www.barefootcollege.org); Amigos de Calakmul (www.amigosde calakmul.org), Mercado Alternativo y Economia Solidaria (www.tumin.org), Red de Multitrueque Tlaloc (www.redtlaloc.blogspot.mx), ChildFund International Mexico (www.childfund.org), Centro de Ciencias de la Complejidad (www.c3.unam.mx), Banco del Tiempo de Guadalajara (www.lacoperacha.org.mx/banco-tiempo-guadala jara.php), Ectagono (www.ectagono.com), Fortalece Legal (www.proyectofortalece. org), El Refugio (www.elrefugiozacatlan.com/index.php/es), and Bosque de los Arboles de Navidad (www.bosquenavidad.com) in Mexico; Fundacion Escuela Nueva (www.escuelanueva.org/portal1/es) in Colombia; and Projeto Saude e Alegria (www.saudeealegria.org.br/in) in Brazil. The study included bibliographic research, telephone interviews, and field visits, using methods such as observation, open-ended interviews with key agents and beneficiaries, documentary reviews, etc.

Clearly, the diversity of contexts in which these development initiatives operate precludes generalization of the efficiency of their mechanisms used for cultivating agency capacity for sustainable development. However, the experiences of these initiatives allow us to reflect on the challenges they face when creating projects that intend to be relevant for all, integral and equitably appropriated. They also show the kind of decisions that must be taken in order to minimize and resolve their dependency conditions. From these elements, this author formulated a list of topics and questions drawn from these experiences, which are proposed here as a guide for a better understanding of the phenomenon, as a learning tool, for those TVET educators who visit or work in cooperation with development initiatives.

Self-Awareness and Planning on Agency Capacity

An initiative's ability to deliver sustainable results is greatly determined by the level of awareness that its executors have about its own degree of agency and its potential transgenerational impact. Therefore, the extent to which they have defined spaces, moments or other measures to reflect and take decisions upon these issues, can sharply affect the design of the working model, as well as the allocation, motives and long-term planning of the funds.

What to Observe?
- Self-awareness on **agency level**:
  - How aware are the implementing agents of who is actually taking the decisions about the design, implementation, and evaluation of their initiative? For example, themselves, the State, the beneficiaries, and the donors?
  - How aware are they of how the above condition affects the initiative's capacity to solve its problems, both in terms of global sustainability and of its particular conditions?

- To what extent have they mapped the external factors that help or hinder their performance? For example, external evaluations, restricted funds, national legislations not relevant to their local context, corruption practices, related social movements, etc.
    - Have they evaluated the level of dependence that the initiative has on those external actors and factors?
    - Have they evaluated the resources they have and the strategies they could implement to reduce such dependency? (without undermining others' needs) For example, funds, technical capacity, collaborations, etc.
- Self-awareness on **trans-generational impact**:
    - To what extent does the initiative design its own model, plan the actions, and distribute funds to solve the causes of its target problematic in the long run?
    - Have the implementing agents considered who has the capacity to ensure the effectiveness of their project and working methodologies in the long term and even to scale them up? For example, the initiative itself? The State? The beneficiaries?
    - What role has the initiative chosen to play to make better use of its resources and have a more sustainable impact? For example, a network orchestrator (who forms and coordinates networks of related initiatives), a local capacity builder (who works on strengthening the capacity of beneficiary agents to gradually take the direction of the initiative), a demonstrative experience creator (who formulates model experiences that can be later scaled by the State or another agent with greater capacity), etc.
- Spaces, moments, and other mechanisms for reflection and planning:
    - What physical and temporary spaces has the initiative designed to reflect on its agency capacity and trans-generational impact and to discuss and decide on relevant strategies for their strengthening? For example, weekly meetings for strategic planning, annual self-assessments, areas in charge of bringing about institutional analysis and integration, etc.

Mechanisms to Ensure Equitable Ownership

For many development initiatives, enable that all stakeholders can negotiate their design, implementation and evaluation processes in terms of equity, requires them to reduce their dependence on external resources and expertise, and to create structures and techniques that allow and encourage local participation, organization and negotiation.

These structures give the initiative a wide a view as possible of the problems they face. This enables actors to suggest coping strategies and offer feedback to the initiative, aiding its planning, flexibility, and adaptation. They can also help balance global and local needs and deal with both endogenous and exogenous accountability pressures

Box 1 Alternative Currencies

Several initiatives in Mexico have chosen to use alternative currencies to reduce their communities' dependence on the national currency (the peso) and to strengthen their capacity to satisfy local needs.

The Banco del Tiempo de Guadalajara established a system for people to exchange services using time as a transaction currency and save their conventional money for other expenses.

The Mercado Alternativo y Economia Solidaria initiative in Veracruz and the Red Multitrueque Tlaloc in Mexico City printed vouchers with an equivalent value to the Mexican peso. They aim to encourage local production and economic exchange by distributing an initial amount at no cost to participants, who commit to spend that money on the businesses of other partners, and to receive the alternative currency in at least 15% of the payments to their own products.

The hostel El Refugio in Puebla accepts and encourages the practice of bartering with customers (in addition to paying with conventional money). This allows them to exchange lodging for advertising, solar panels, wine bottles, and even work.

In all these cases, the use of alternative currencies (vouchers, time, direct barters) has helped to minimize their reliance on external resources that do not flow easily through their communities. It has also helped the communities to encourage and strengthen the production of local services and products, with a view to creating a stronger economy for the future generations. Moreover, all initiatives provide a space where participants can discuss and negotiate issues such as the rules for transactions and the members, products, or services that should be included in the project to ensure that the different needs are met (e.g., assemblies, fairs, face-to-face negotiations).

They can provide transparency to the decision-making process. This can increase the trust of the different actors involved (commonly undermined by fear of corruption or abuse). Chiefly, they can help create the conditions for the beneficiaries of the initiative to become agents of their own development: defining strategies, distributing roles and responsibilities, and providing the necessary resources or work to implement the initiative – thereby helping to reduce its dependence on external financing and increasing its possibilities of survival.

To stimulate local ownership initiatives, use a variety of techniques:

- Decentralize the management of their funds and responsibilities.
- Use participatory techniques in the design and implementation of all stages of their projects.
- Promote the creation and strengthening of local leaders and organizations.

- Design feedback mechanisms that ensure that all voices are well represented.
- Encourage the education and technical training of local actors.

To guarantee equality of conditions in negotiations between different agents, initiatives often:

- Create projects of common interest that motivate cooperation.
- Establish trusts involving both beneficiaries and donors to ensure that the different interests in question are well negotiated and respected.
- Systematize the value of the services and resources provided by their communities/actors and use this local resource to, for example, establish parity funds that take into account the value of these contributions.

What to Observe?
- How equitably are the rights and responsibilities shared between local and external actors during the negotiations on its design, implementation, and evaluation?
- What institutional, ideological, and financial mechanisms has the initiative designed to ensure equitable ownership?
- What types of structures and techniques for local negotiation, organization, and participation have the initiative designed or encouraged? How do they work?
- Are there any obstacles that prevent it from being equitably appropriated?
- How does the initiative handle the situation?

Mechanisms to Ensure Relevance for All

A major challenge for development initiatives is to ensure that their interventions are relevant to the needs, cultural values, interests, and working approaches of the different actors affected by them: the immediate beneficiaries, the organizations that support them, the neighboring, national and international communities, and the present and future generations.

Box 2 Local Capacity Building
ChildFund International works with marginalized children and their communities in over 30 countries through partnerships with local groups and organizations. Its specific purpose is forging the communities' agency capacity to sustain development initiatives in an agreed period of time.

To that purpose, ChildFund invests in hiring personnel that help find businesses willing to refund those operational expenses and invest in

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Box 2 Local Capacity Building (continued)

capacity building programs for the communities. The enterprise does this by matching each donation to the initiative by its employees through the "matching gift program" organized by its human resources department.

With this income, ChildFund's main office operates as a capacity builder, creating and empowering local branches (all as separated civil associations) by training them to get funds, manage programs, establish cooperatives, increase social participation, etc.

The enterprise and ChildFund make an agreement with the community organized as a local civil association, to produce results in a certain period of time (10, 20 years). If there are no results (measured by periodical evaluations), the funding is stopped.

In short, the partnership contemplates an exit plan for both the enterprise and ChildFund's main branch, with the intention of promoting a decentralized development program with long-term impact.

This is for two reasons:

1. Ethics that seek to extend opportunities for development, to improve quality of life for every person, making sure that the benefit of one does not compromise that of the others – such as the one that underlies the capability approach.
2. Our interdependence has revealed that the fate of every person, community, or nation affects the opportunities of others, including those of future generations – a pragmatic reason.

To warrant relevance for all, specific measures must be taken:

• Actions to adapt global agendas to local contexts and vice versa
• To neutralize vertical policy schemes
• To customize "best practices" to the particular context where they are being implemented
• To plan initiatives taking into consideration the interests and needs of those groups traditionally discriminated against by their communities, etc.

Some initiatives do this by incorporating local knowledge, resources, and motivations into national curricula (with complementary materials, community engagement projects, bilingual education, etc.). This is known as intercultural education. Others focus on detecting and addressing specific factors that prevent certain groups from benefiting from health, employment, and other programs, by forging local participation structures. Still others do so by encouraging the leadership of traditionally discriminated actors, etc.

What to Observe?
- Who is being benefited by the development initiative?
- Whose interests or needs may be affected by it?
- How compatible is the initiative with the development priorities at a global level and how much with those of the immediate beneficiary community?
- How do exogenous factors (such as donor terms of reference or national legislations) limit the initiative's capacity to ensure the relevance of its interventions not only globally but also locally?
- To what extent are local principles, knowledge, and values taken into account in the initiative's design and evaluation?
- To what extent do the efforts of the initiative facilitate or hinder the way for future generations?

In other words:

- To what extent is the initiative investigated relevant to the conditions and interests of all the different actors affected by it?
- Is the initiative interested at all in having this plural relevance?
- What institutional, ideological, and financial mechanisms has it devised to this end?
- Does anything prevent the achievement of relevance for all?
- How does the initiative deal with the situation?

Box 3 Participatory Mapping

Projeto Saude e Alegria works with socially and geographically excluded populations, many of them of the caboclo indigenous-descendants group, in the Brazilian Amazon region of Western Para State.

The initiative organizes programs for community health, forestry, education, culture, and communication.

All are designed and monitored through a technique for local participation, organization, and negotiation called participative mapping: community members meet with implementing members of the initiative to draw up a map of their region, bring together all available information to build a geographic database, and make an in-depth diagnosis of local conditions, challenges, conflicts, problems, and priorities.

The mapping serves as a "document of reality" that provides a basis to program the regional development initiatives of both the Projeto Saude e Alegria and the government, to ensure good land management, permit territorial regularization, and promote the sustainable use of resources. It also serves to identify local elements (e.g., objects, animals, topics of interest to the inhabitants) that can be used to adapt textbooks and other educational materials to the local circumstances, making them more relevant to the community's immediate reality.

Mechanisms to Ensure Integral Interventions

Integral development solutions are more likely to be sustainable than stand-alone interventions. They also help minimize the dependency of initiatives on external resources.

The life of the people and the communities with which development initiatives work is integral: many factors – political, environmental, economic, cultural, etc. – influence both the generation and significance of their problems, as well as the capacity of each person to capitalize the development interventions aimed at solving them.

Comprehensive solutions recognize and address this diversity of factors, as they are aware that neglecting one can prevent people from taking advantage of the service, opportunity, or facility provided by the initiative.

Addressing the different dimensions that affect the target problematics of development initiatives allows different behavior to emerge and reduces the possibilities for the resurgence of the original problems.

Initiatives can strengthen the transversality of their institutional responsibilities and the interrelationships between their programs. This allows mutual reinforcement, and the benefits obtained in some areas can have a positive impact on others. This includes the distribution and sharing of funds and other human and infrastructural resources (which often are easier to obtain for work on certain development areas than others).

For these reasons, several initiatives foster the integrality of their projects by implementing models that provide a set of integrated services (health, education, etc.) and by ensuring a systemic design for their interventions where all actors and factors are addressed.

Other initiatives establish institutional areas specifically responsible for promoting the connection between their programs. Others ally with other initiatives that work with their same target populations, sharing information and resources. Several foster integral interventions by forging mechanisms for different forms of local participation (local organizations, assemblies, etc.), to identify the different factors affecting the problems with which they work in their particular context.

Others seek to strengthen local economies to meet the different needs of their target communities. There are also those that invest the funds collected for a specific individual or group in programs for the integral development of the community to which these individuals or groups belong.

What to Observe?
- To what extent has the initiative typified its target population (its context, its various interests, and its particular needs)?
- What mechanisms does the initiative use to map the different factors that affect the problem of interest (economic, nutritional, social, cultural)?

- How comprehensively does it address these factors?
- Are there any obstacles that prevent the initiative from assuring the integrality of its intervention? For example, restrictive terms of reference, funding accountability pressures, etc.
- How does the initiative deal with these obstacles?

Box 4 Association of Initiatives (Partnerships)

Bosque de los Arboles de Navidad (hereafter BAN) is a social enterprise in Mexico's southern state of Puebla whose main economic activity, the sale of Christmas trees, is complemented by a series of programs that seek to promote ecological awareness and conservation, environmental education, and local socioeconomic development.

Two types of collaboration are promoted to satisfy diverse needs and ensure the integrality of the project and, with it, a greater projection and attractiveness without the need to invest extra resources:

1. *Close collaboration with other social enterprises, based on mutual benefits*
   One offers walks, retreats, and tailor-made talks for companies' employees in the BAN territories, which brings extra resources and publicity. A nearby hacienda offers hotel lodging and camping services, cultural visits to local history and geography museums, parks for the protection of local species, and extreme sports facilities. The hacienda not only offers several of these services for free to BAN customers but also sends its own customers to visit BAN's initiative. In exchange, BAN gives them free saplings from its nursery and discount coupons for the purchase of Christmas trees and offers them talks about the sustainable management of forests and walks through the nursery and the forest.

   Another company organizes school visits that are recognized by the Ministry of Education because they are designed to reinforce the teaching of subjects of the curriculum such as science, environmental education (garbage management, rainwater harvesting, etc.), civics, etc. The visits represent an extra income for BAN, who in addition to the talks also gives free trees of the nursery to each student.

2. *Collaborations with the local population based on mutual benefits*
   BAN provides the facilities for a Christmas bazaar that gives merchants the opportunity to sell their products. Although the income that BAN receives from them is barely enough to maintain the place and does not represent a monetary gain, it increases the attractiveness of the trees sale for the people coming from other parts of the country. The same thing happens with the Christmas food market. In this case the vendors, mostly local, are not charged rent.

> **Box 4 Association of Initiatives (Partnerships)** (continued)
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> Moreover, BAN gives permission to local collectors to gather and sell the garbage they generated, which in turn helps it to keep the facilities clean. It also gives permission to local shepherds to bring their lambs to pasture, which benefits BAN because in so doing they cut and fertilize the grass where the trees are planted. In addition to these collaborations, which help increase the project's impact by creating environmental awareness in different sectors of the population (companies, schools, families), BAN promotes and scales its model through environmental awareness talks and technical training courses on the installation and maintenance of nurseries, rainwater harvesting systems, etc. This is being offered free of charge to peasants and to the national and foreign organizations that visit its initiative.

Conclusion

Finding solutions for sustainable development is of utmost urgency for each and every inhabitant of this planet, including TVET recipients and their descendants.

As such, it's important that the TVET learning processes incorporate elements that familiarize students with the alternatives of social change undertaken by development agents around the world through their initiatives. They should also acquaint the students with political and economic factors, considerations, and measures that strengthen or limit their agency capacity (power) to carry out interventions that are integral, relevant for all, and equitably appropriated – i.e., sustainable.

Learning how to inquire about these issues through the interaction with firsthand sources will help TVET students to better understand the importance of the global sustainable development agenda, its conceptual and practical implications, and the concrete means and strategies they can incorporate into any working area in which they choose to participate.

This will strengthen their own agency, which will permit them to take advantage of, question, and modify the labor and other societal arrangements that affect their quality of life or, even, to create new alternatives.

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