

10-020

FAO'S CFS-RAI PRINCIPLES AS AN INSTRUMENT TO REVITALIZE THE EMPTIED SPAIN: FOOD ENGINEERING PROJECT IN GOLMAYO (SORIA).

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In October 2014, the Committee on Food Security approved the Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI Principles), with the objective of contributing to the achievement of food security and nutrition, through the improvement of sustainable livelihoods. As the concept of agriculture and food systems includes all activities from production to disposal of the products resulting from these activities, the stated engineering project would be included in this category, being the purpose of this the design, calculation and dimensioning of a refrigerated omelette industry located in the town of Golmayo, in the province of Soria. The decision to locate the industry in the province of Soria is based on the possibility of empowering this rural area by generating economic and sustainable growth, which will result in obtaining the necessary conditions for the revitalization of rural areas. Therefore, this communication investigates how the project is enriched by aligning decision making for the achievement of this objective, both in direction and management, with the CFS-RAI principles.

Keywords: CFS-RAI principles; project management; rural empowerment; rural revitalization.

LOS PRINCIPIOS CSA-IAR DE FAO COMO INSTRUMENTO PARA REVITALIZAR LA ESPAÑA VACIADA: PROYECTO DE INGENIERÍA ALIMENTARIA EN GOLMAYO (SORIA)

En octubre de 2014 el Comité de Seguridad Alimentaria aprobó los Principios para la Inversión Responsable en la Agricultura y los Sistemas Alimentarios (Principios CSA-IAR), con el objetivo de contribuir a la consecución de la seguridad alimentaria y la nutrición, mediante la mejora de los medios de vida sostenibles. Cómo dentro del concepto de agricultura y sistemas alimentarios se comprenden todas las actividades englobadas desde la producción hasta la eliminación de los productos resultantes de dichas actividades, el proyecto de ingeniería enunciado quedaría englobado dentro de esta categoría, siendo la finalidad del mismo la del diseño, cálculo y dimensionamiento de una industria de tortilla refrigerada ubicada en la localidad de Golmayo, en la provincia de Soria. La decisión de ubicar la industria en la provincia de Soria se fundamenta en la posibilidad de empoderar dicha área rural generando un crecimiento económico y sostenible, lo cual resultará en la obtención de las condiciones necesarias para que se origine la revitalización de las áreas rurales. Por consiguiente, en esta comunicación se investiga cómo el proyecto queda enriquecido al alinear la toma de decisiones para la consecución de dicho objetivo, tanto en la dirección como en la gestión, con los principios CSA-IAR.

Palabras claves: Principios CSA-IAR; dirección de proyectos; empoderamiento Rural; revitalización rural.

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1. Introduction

In 2015, the world leaders of the United Nations Members States approved the 2030 Agenda for Sustainable Development, whose objective was to address the social, economic and environmental challenges of globalization, based on people, prosperity, planet, partnership and peace. To this end, 17 Sustainable Development Goals (SDGs) were proposed, which are divided into 169 measurable and time-bound targets for the achievement of these goals.

However, it should be noted that the SDGs began to be discussed in 2012, when there were only three years left until the conclusion of the Millennium Development Goals (MDGs), which for 15 years promoted the fight against the indignity of poverty. The starting document used was "*The Future We Want*", published in June 2012 by the United Nations System, as it defined "*a roadmap for the Post-2015 United Nations Development Agenda*". Furthermore, this dialogue process not only involved a group of High-Level Eminent Persons representing different countries who played a coordinating role in the document "*A Partnership We Want*" published in May 2013, but also involved the civil society and a United Nations Development Group consisted of 32 agencies brought together by thematic affinities, including the Food and Agriculture Organization of the United Nations (FAO) and the World Food Programme (WFP), who led the discussion workshops on food, hunger and agriculture for the formulation of the 2030 Agenda (Afonso, A., 2020).

In parallel, the Committee on World Food Security (CFS) was developing and negotiating the "*Principles for Responsible Investment in Agriculture and Food Systems*" (CFS-RAI Principles) in a process that involved governments, civil society and the private sector. Consequently, these two processes were coincident in time until the CFS-RAI Principles were declared in 2014, deducing not only their intrinsic relation as a result of the fact that the discussion workshops hosted by FAO worked in the same direction, but also explicit, since in the document of the declaration of the CFS-RAI Principles and, more specifically, in the conceptual framework, all the international guidelines that have been taken into account are established, being one of them "*The Future We Want*", the starting document in the negotiation of the SDGs (Afonso, A., 2020).

Therefore, the purpose of this communication is to make an intellectual reflection on how the project would be enriched by aligning decision making to the achievement of the CFS-RAI Principles and the SDGs. To this end, some initiatives that could be carried out in the industry and that go beyond a technical dimension will be presented, due to the evolution that the concept of project has undergone as a consequence of the growing awareness of society for social and environmental issues. The importance of this new conceptualization of project characterized by its multidimensionality is what the IPMA International Certification in Project Management tries to convey through a very complete inventory of competences, whose knowledge and application is essential to ensure a higher probability of achieving the project objectives, satisfying the needs of all the stakeholders. Therefore, in the last step of this communication, these initiatives will be related to the competences with the aim of reflecting how a purely technical knowledge, enriched with this consideration of the contextual aspects, can bring not only a beneficial impact from an economic point of view, but also environmental and social.

To this end, the project used for this reflection is a Final Degree Project that was carried out to complete the Degree in Food Engineering taught at the Technical School of Agricultural, Food and Biosystems Engineering of the Polytechnic University of Madrid, whose objective was the "*Design, calculation and dimensioning of a refrigerated omelette industry located in the town of Golmayo, in the province of Soria*".

2. Methodological application

With the aim of reflecting how decision making considering the four dimensions of a project (technical, economic, environmental and human) can result in the design, implementation and subsequent use of a sustainable project, which generates economic and social development of the town in which it is located and promotes awareness of society, this communication will begin by proposing some initiatives aligned with the achievement of the SDGs and CFS-RAI Principles, and then relate them to the project management competences.

2.1 Connection between the Sustainable Development Goals (SDGs) and the Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI Principles)

As mentioned above, the 2030 Agenda promotes action in 5 areas, known as the 5P: people, planet, prosperity, peace and partnership. However, in this communication we will group them into 4 categories to facilitate their connection with the CFS-RAI Principles (Afonso, A., 2020). Therefore, the SDGs and the CFS-RAI Principles are related through 4 dimensions:

Table 1: Connection between the SDGs and the CFS-RAI Principles

Sustainable Development Goals (SDGs)	Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI Principles)
Social Dimension (People)	
Goal 1: No poverty Goal 2: Zero Hunger Goal 3: Good Health and Well-being Goal 4: Quality Education Goal 5: Gender Equality Goal 6: Clean Water and Sanitation	Principle 3: Foster gender equality and women's empowerment Principle 4: Engage and empower youth
Economic Dimension (Prosperity)	
Goal 7: Affordable and Clean Energy Goal 8: Decent Work and Economic Growth Goal 9: Industry, Innovation and Infrastructure Goal 10: Reduced Inequalities	Principle 1: Contribute to food security and nutrition Principle 2: Contribute to sustainable and inclusive economic development and the eradication of poverty Principle 7: Respect cultural heritage and traditional knowledge and support diversity and innovation Principle 8: Promote safe and healthy agriculture and food systems
Governance (Peace and Alliances)	
Goal 11: Sustainable Cities and Communities Goal 12: Responsible Consumption and Production Goal 13: Climate Action Goal 14: Life Below Water Goal 15: Life and Land	Principle 5: Respect tenure of land, fisheries, and forests and access to water Principle 6: Conserve and sustainably manage natural resources, increase resilience and reduce disaster risks

Sustainable Development Goals (SDGs)	Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI Principles)
Environmental Dimension (Planet)	
Goal 16: Peace, Justice and Strong Institutions Goal 17: Partnerships for the Goals	Principle 9: Incorporate inclusive and transparent governance structures, processes and grievance mechanisms Principle 10: Assess and address impacts and promote accountability

2.2 Initiatives

Below are some initiatives to align the project to the achievement of the SDGs and the CFS-RAI Principles.

2.1.1 People (Social Dimension)

- The choice of this project and type of finished product was based on the expansion that the ready meals sector was undergoing and continues to undergo and, more specifically, this finished product. However, this choice could have been made based on a previous study of the culture, traditions and customs of the population of the province of Soria, in order to report a greater beneficial impact on this location.
- During the design phase of the spaces necessary for the production process to take place, it was decided to hire a greater number of operators instead of automating the process in order to allocate the available resources to the design of the necessary spaces to make it possible to visit the industry. This decision, which was taken exclusively considering the economic dimension of the project, can be used to train citizens belonging to vulnerable groups in this locality with the objective to enable them to access employment.
- When selecting suppliers, those closest to the plot where the industry would be located were chosen in order to reduce processing times. Unconsciously, this decision contributes to the achievement of the objectives and principles included in the environmental dimension, since reduced transport distances generate lower atmospheric emissions, but we could go further by establishing an indispensable requirement to our suppliers which could be to implement sustainable practices in their production processes.
- When selecting the materials and packaging used for the transport of raw materials and finished products, we should select those that are in line with the principles of the Circular Economy (Cerdá, E. & Khalilova, A., 2016).
- As mentioned above, the industry has some spaces for the public to visit and learn about the production process that will be carried out in the industry. Therefore, this decision can be used to transmit not only to employees but also to the society the company's values, as well as to carry out awareness campaigns on the growing need to reduce food waste, the

importance of implementing sustainable models throughout the life cycle of any project, from supply, production, marketing and consumption, etc.

- Contribute to the achievement of the goal number 5 in recruitment processes.
- Capital investment in training courses to contribute to a sustainable use of water resources for its subsequent dissemination throughout the project life cycle.

2.1.2 Prosperity (Economic dimension)

- An important part missing in this project is the study of the management of by-products, which objective would not only be to analyse the viability of their energetic recovery, but also their sale to bring an economic benefit to the industry.
- The decision to locate the industry in the province of Soria was based on the proximity of the raw material supply areas and the scarce competition faced by the industry when introducing its products in the market of Soria. However, if it had been taken into consideration that the province of Soria has two of the least densely populated towns in Spain, this location would also have been selected in order to fix the local population, but also because of the possibility of generating new job opportunities.
- The processing times and the necessary spaces were designed so that workers could perform their duties in a safe and healthy manner, without taking into consideration that to achieve their commitment and an effective and efficient work, giving the best of themselves, goes far beyond an economic remuneration, being necessary the investment to provide training and continuous improvement, as well as the necessary conditions to make work conciliation possible.
- Finally, together with the aforementioned job opportunities that the industry would generate, it should be used to train vulnerable groups in this province with the aim of enable them to access employment.

2.1.3 Peace and Partnership (Governance)

- In order to achieve the goal number 16, one of the missions of the organization should be to become a reference of transparency, not only to improve the reputation of the brand, but also to attract investments to this province.
- The organization strategy should include the need to accomplish open communication with every stakeholder, with the objective of achieving the organizational objectives and promoting continuous improvement.
- In this project, a detailed analysis of competitors was made, with the sole objective of studying if the finished product provided by the industry has a place in the market. However, this analysis should be used as an opportunity to form alliances and face challenges together.
- Moreover, these alliances should go beyond business partnerships to include political, institutional and social alliances. Therefore, taking into account the latter, the project could have started by studying which raw materials are mainly produced by farmers in the

province of Soria, in order to provide a finished product that makes use of these raw materials, generating an economic development in every phase of the project.

2.1.4. Planet (Environmental Dimension)

- As mentioned above, one of the objectives for which the industry should be located in the town of Golmayo, in the province of Soria, is the generation of job opportunities which will lead to the development of this rural area.
- Selection of materials and packaging for the transport of raw materials and finished products that comply with the principles of the Circular Economy. In addition, the search for opportunities for by-products generated in other industries where they could be considered raw materials.
- Awareness sessions for both workers and society on the growing need to reduce food waste, climate change and the importance of biodiversity.
- Capital investment in innovative conservation techniques that increase the shelf life of both raw materials and finished products in order to reduce distribution and transport needs and their consequent impact on the environment.
- When choosing the plot where the industry was to be located, only the use of the land on which the construction was possible and the building conditions established in the General Urban Development Plan of Soria were taken into account. However, this decision should have been made by selecting the plot where the environmental impact was the least.

2.3 Project Management Competences

As the last step of this methodology, each initiative proposed above is related not only to a competence, but also to its respective Key Competence Indicator, providing confirmation that the implementation of these initiatives will lead to a successful management of the project.

Table 2: Relation between the initiatives and the competences

Initiatives	SDGs	CFS-RAI Principles	Competences	Key Competence Indicators
People (Social Dimension)				
Preliminary study of the culture, traditions and customs of the population of the province of Soria	1		Culture and values	Evaluates the culture and values of the society and their implications for the project
			Stakeholders	Identifies stakeholders and analyzes their interest and influence
Training for citizens belonging to vulnerable groups in this locality	1	3 4	Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Stakeholders	Organizes and maintains networks and alliances
Selection of suppliers that have implemented sustainable practices in their production processes	2		Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Resources	Identifies potential sources of resources and negotiates their acquisition

Initiatives	SDGs	CFS-RAI Principles	Competences	Key Competence Indicators
Selection of materials and packaging that are in line with Circular Economy principles	2		Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Resources	Defines the quality and quantity of resources required
Transmission of the company's values and awareness campaigns on the growing need to reduce food waste, the importance of implementing sustainable models throughout the life cycle of any project, etc.	3 4		Relationships and participation	Initiates and develops personal and professional relationships
			Stakeholders	Develops and maintains a stakeholder strategy and communication plan
Contribute to achieving gender equality and empowering all women through the recruitment process	5	3	Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Teamwork	Selects and builds the team
Capital investment in training courses to contribute to the sustainable use of water resources	6		Orientation to results	Evaluates all decisions and actions from the point of view of their impact on project success and objectives
			Risks and opportunities	Identifies risks and opportunities
Prosperity (Economic Dimension)				
By-product management study	7	2 7	Compliance, standards and regulations	Identifies and ensures that the project complies with all relevant sustainability principles and objectives
			Risks and opportunities	Identifies risks and opportunities
Decision on the location of the industry with the objective of retaining the local population and with the possibility of generating new job opportunities	8	7	Strategy	Aligns with organizational mission and vision
			Scope	Structures the scope of the project
Capital investment to provide training and continuous improvement of workers, as well as the necessary conditions to make work-life balance possible	8	2	Teamwork	Supports, facilitates and reviews the development of the team and its members
			Orientation to results	Creates and maintains a healthy, safe and productive work environment
Training for citizens belonging to vulnerable groups in this locality	10	2	Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Stakeholders	Organizes and maintains networks and alliances
Peace and Alliances (Governance)				

Initiatives	SDGs	CFS-RAI Principles	Competences	Key Competence Indicators
Make it one of the organization's missions to become a reference for transparency	16	9	Strategy	Identifies and seizes opportunities to influence organizational strategy
			Relationships and participation	Shares its own vision and goals to gain the participation and commitment of others
Facilitates and promotes open communication with every stakeholder	16	9	Power and interests	Assesses the informal influence of individuals and groups and their potential impact on the project
			Personal communication	Facilitates and promotes open communication
Establishing alliances with competitors to face challenges jointly	17	9 10	Relationships and participation	Initiates and develops personal and professional relationships
			Stakeholders	Organizes and maintains networks and alliances
Establishing alliances with society to face challenges jointly	17	9 10	Relationships and participation	Initiates and develops personal and professional relationships
			Stakeholders	Organizes and maintains networks and alliances
Planet (Environmental Dimension)				
One of the objectives for which the industry should be located in the province of Soria should be the development of this rural area	11	5	Relationships and participation	Shares its own vision and goals to gain the participation and commitment of others
			Requirements and objectives	Identifies and analyzes stakeholder needs and requirements
Selection of materials and packaging that are in line with Circular Economy principles	12	6	Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Resources	Defines the quality and quantity of resources required
Search for opportunities for by-products generated in other industries where they are considered raw materials	12	6	Compliance, standards and regulations	Identifies and ensures that the project complies with all relevant sustainability principles and objectives
			Risks and opportunities	Identifies risks and opportunities
Awareness campaigns about the growing need to reduce food waste, climate change, and the importance of biodiversity	12 13 15	5 6	Relationships and participation	Initiates and develops personal and professional relationships
			Stakeholders	Develops and maintains a stakeholder strategy and communication plan

Initiatives	SDGs	CFS-RAI Principles	Competences	Key Competence Indicators
Capital investment in innovative preservation techniques that increase the shelf life of both raw materials and finished products	12	6	Culture and values	Aligns the project with the formal culture and corporate values of the organization
			Orientation to results	Evaluates all decisions and actions from the point of view of their impact on the success of the project and objectives
Selection of the plot where the least environmental impact is generated	15	5 6	Strategy	Aligns with organizational mission and vision
			Compliance, standards and regulations	Identifies and ensures that the project complies with all relevant sustainability principles and objectives

3. Results

The results of this intellectual reflection are presented below with the aim of concluding which are the aspects on which this project should have been further developed in order for it to have acquired the multidimensional aspect mentioned above. For this purpose, the competences

related to each initiative have been divided into 3 areas as presented by the International Project Management Association:

Table 3: Results

Area of competence	Competences	SDGs	CFS-RAI Principles
Perspective	Strategy	8, 16 and 15	5, 6, 7 and 9
	Compliance, standards and regulations	7, 12 and 15	2, 5, 6 and 7
	Power and interests	16	9
	Culture and values	1, 2, 5, 10 and 12	2, 3, 4 and 6
People	Personal communication	16	9
	Relationships and participation	3, 4, 11, 12, 13, 15, 16 and 17	5, 6, 9 and 10
	Teamwork	5, 8	3 and 3
	Orientation to results	6, 8 and 12	2 and 6
Practice	Requirements and objectives	11	5
	Scope	8	7
	Resources	2 and 12	6
	Risks and opportunities	6, 7 and 12	6
	Stakeholders	1, 3, 4, 10, 12, 13, 15 and 17	2,3, 4, 5, 6, 9 and 10

4. Conclusion

First of all, it should be noted that since this is a case study based on an engineering project, the objectives of the technical dimension that any project belonging to this category must meet had been achieved. Because of this, the proposed initiatives are aimed at ensuring that this project achieves a multidimensional approach. Therefore, two fundamental aspects can be concluded from this intellectual reflection: the need for the mission and values of the companies to be oriented towards the achievement of the SDGs and CFS-RAI Principles and the importance of taking into account every stakeholder involved in the project implementation.

The first of the aforementioned aspects is based on the fact that when linking the proposed initiatives with the elements of competence, these are actions that could have been considered

if the mission, vision and values of the industry had been clear, in the case of being focused on mitigating the social, environmental and economic problems of the project's radius of action.

Finally, it is important to highlight the importance of identifying the stakeholders of any project, since if they had been considered, the beneficial impact on the population of this province could have been increased.

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Communication aligned with the Sustainable Development Objectives

