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**SOLVING THE GREAT FOOD PUZZLE:  
SCALING FOOD SYSTEMS  
TRANSFORMATION IN COLOMBIA**

# SUMMARY OF KEY FINDINGS

- 1 Given its environmental specificities, Colombia is considered an **Ecological Food System Hotspot**, which means it's a country that has some of the richest and the most threatened reservoirs of carbon, plant and animal life on earth, and faces significant levels of food production at the expense of these natural resources.
  - a. Although all countries must transform their food system, these “hotspots” represent countries that are uniquely important for achieving global climate and biodiversity goals yet continue to face increasing rates of nature conversion for food production.
- 2 Transforming the Colombian food system, requires a shared agenda that goes beyond health and nutrition. It is necessary to recognize the natural supply of the different territories and give a voice to small producers. The changes required at the production level are linked to strengthening the capacity of producers to make decisions. From the perspective of diets, advancing regional dietary guidelines is essential to include more actors in the conversation.
- 3 Colombia's food system transformation must take into account three fundamental variables: it must be managed with and from the highly diverse regions; it must include all the actors in the chain based on a construction of shared trust that promotes the achievement of effective; it requires an approach that identifies success stories that generate shared and sufficient knowledge.
- 4 As with other countries assessed, Colombia would highly benefit from strengthening national-level commitments on food systems. There is high potential for transformation by harmonizing programmes and actions across the country to create national-level commitments, and this will also help deliver global climate, biodiversity and health goals.
- 5 Some of the levers for impact that could have the most positive impact if implemented in Colombia are optimizing land use and decoupling agricultural production to deforestation and conversion of natural ecosystems, restoring biodiversity, supporting smallholder farmers, and redirecting subsidies to improve production.
- 6 When leveraging food system transformation, trade-offs must be carefully considered. When producers are shifting production practices and making changes on their farms and in their supply chains, for instance to restore biodiversity, or are receiving subsidies to produce different foods, there could be adverse impacts on short-term food availability or jobs and livelihoods. As such, Colombia should consider providing financial incentives and taxes to improve consumption to ease any adverse impacts.

## SOLVING THE GREAT FOOD PUZZLE

Solving the Great Food Puzzle adds to a critical conversation around how food system transformations may vary at the country level by putting the spotlight on four countries (Brazil, Colombia, Kenya, UAE) as illustrative examples, to demonstrate the myriad ways in which food system transformations might be similar or vary between countries.

**While this is not the first report on food system transformations at the national level, this report is novel in that it:**

- 1) assesses food systems from a conservation lens to highlight important environmental dimensions and provide insights for organizations working on the ground;
- 2) uses a typology of food systems to reduce the complexity of analysis;
- 3) identifies a handful of transformation levers that can be assessed across all countries and;
- 4) uses a local context analysis to assess the potential of levers to transform a particular food system type and test the validity and usefulness of the typology.

Six variables informed the typology because they may have a disproportionate impact on a country's ability to achieve climate and biodiversity goals and can also influence the trade-offs that a country must contend with when implementing policy. These variables were then used to construct three food system types from the four countries studied. Finally, 20 transformation levers were used to analyse the similarities and differences in actions, and their potential impacts, across the three food system types.

## COLOMBIA OVERVIEW

Colombia is a medium-size upper-middle income tropical country in South America, and home to 48 million people. Colombia is one of 12 countries with the greatest biological diversity in the world with 85 major types of ecosystems identified. Colombia is home to a wide range of cultures and traditions defined by a range of geographies from the Andean mountains to the eastern plains, the Pacific and Caribbean coasts, and the Amazonian forests.

With its large carbon reserves, it is of central importance to achieving global climate goals. Colombian agriculture is currently characterized by a mix of large industrial agribusiness and smallholder farming, but agri-businesses are on the rise. Colombian agriculture has the potential to meet domestic food demand and at the same time the country exports bananas, coffee and flowers, and is the fourth largest producer of palm oil in the world. The per capita biodiversity impacts of Colombian diets are among the top five in the world and the per capita GHG emissions are above what is required to meet 1.5°C targets. Despite all of this, Colombia still faces persistent hunger with up to 11% of its population facing chronic malnutrition.



# ANALYSIS OF THE COLOMBIAN FOOD SYSTEM FROM A CONSERVATION LENS

In order to address the complexity of making national food system analyses, and to better identify key-levers and facilitate the correlation between them, as well as to identify trade-offs, WWF has developed a typology that can be used to identify similarities and differences amongst food systems.

Based on this typology, Colombia is assessed as a Type I country, alongside Brazil, given the macro food system characteristics identified in the table below.

**Table 1.** Overview of the characteristics of a TYPE I food systems (of which Colombia is an example)

Variables	Type I Colombia
Production System	Most of the land/waters are dominated by industrial food production with a smaller share farmed/fished by smallholders and artisans.
Self-Sufficiency	Sufficient land and water resources exist to produce enough food to meet domestic demand. Food may still be imported but this is not driven by land and resource constraints.
Food Security	Although enough food can be produced domestically, a large percentage of the population remain food insecure due to internal problems related to access, availability, and affordability of food.
Consumption Patterns	Although a high level of food insecurity exists, the per capita impacts from food consumption are above planetary boundaries, mainly driven by high levels of per capita intake of animal-source foods.
Biodiversity Hotspot	High levels of biodiversity richness are found in much of the country, with large areas considered biodiversity hotspots.
Irrecoverable Carbon	High levels of carbon reserves can be found in the country with large areas containing high density reserves of irrecoverable carbon.

Colombia’s importance to meeting global climate and biodiversity goals and the potential threat from its large commercial and expanding agricultural sector, Colombia is an **Ecological Food System Hotspot**, meaning it is a country that has some of the richest and the most threatened reservoirs of carbon, plant, and animal life on earth. Although all countries must transform their food system, these “hotspots” represent countries that are uniquely important for achieving global climate and biodiversity goals yet continue to face increasing rates of land conversion for food production.

## IDENTIFICATION OF KEY LEVERS FOR TRANSFORMATION OF THE COLOMBIAN FOOD SYSTEM

The changes required at the production level to transform Colombia’s food system are linked to strengthening the capacity of producers to make decisions. Today choices are limited by the lack of access to resources, technical capacity gaps, market dynamics, as well as scarce formalization and organization. Colombia is a country of small producers, many in the informal sector. This is the group that requires more attention. We need to provide tools that enable self-organisation and self-determination on the production practices to adopt to obtain sufficient income and, at the same time, be able to decide on the territory in which to live and produce.

This is why the opportunities necessarily go through subsidies and incentives, to build sustainable supply chains, to improve access and use of land, and to improve food production through technology, when relevant, among other actions mentioned in the report. To achieve this, the participation of several actors is necessary, from the government to the NGOs and the companies involved. All of them should be favouring vertical, horizontal, and bottom-up exchanges that re-value the knowledge present in the territories - such as the ancestral or traditional practices - while recognizing the dynamics of the market and the productive potential of the country.

Achieving this implies working from the national to the local order, integrating the main cities with the regions from which their food is obtained, and recognizing the values associated with ethnic and cultural diversity. Beyond a specific set of actions, it is necessary to expand the autonomy that both small producers and consumers have in choosing what foods to produce or eat, according to the possibilities of each context.

Talking about changes in diet in Colombia, as in many other countries, is complex. Not only are we dealing with an issue intimately linked to emotions, traditions, and cultural

values, but many times Colombians eat what they can, and not necessarily what they want. The ability to choose can be closely linked to income, and in a country with high indicators of inequality and poverty, positioning sustainability as an additional variable to modify purchasing habits and consumption routines is a challenge.

Facing this challenge requires information and knowledge. But this cannot be limited to data gathering. It also requires elements that motivate change, even at the emotional level. The combination of knowledge and motivation, added to some minimum enabling conditions, is essential to break the inertia of a food system that is often not even questioned.

## CONSIDERATIONS FOR IMPLEMENTATION

In Colombia, as in many other countries, there is a considerable gap between what should be done and what is really done. Some laws, decrees, instruments or academic analysis usually end up describing the problems to be faced and the possible solutions, but it is difficult to reach an effective implementation. The reasons are numerous: the low capacity of many institutions, especially at the territorial level; the remarkable differences between different regions, which make adaptations necessary in different contexts; the difficulty in finding agreements between groups with opposing interests, added to limited citizen participation; as well as all the dynamics of illegality that in different places at times undermine the possibility of sustained progress over time.

Taking into account the above, Colombia's food system transformation must take into account three fundamental variables: it must be managed with and from the regions with their particularities, culture, geographic determinants, and the differences between the urban and the rural; it must include all the actors in the chain based on a construction of shared trust that promotes the achievement of effective governance of the different processes involved; it requires an approach that identifies success stories that generate shared and sufficient knowledge to advance in the different fronts.

Likewise, the implementation of any solution must take into account the marked inequities in the country, where many women, ethnic groups and peasants have limited possibilities to transform their reality without support. Even more so with the current high rates of informality and poverty, especially in the countryside. This inequity makes certain links in the food chain more likely to exercise a regulatory function or to

drive the positive transformations needed. In this sense, any change must enhance the differentiated capacities of each actor and design ways to guarantee that those with fewer options can effectively transform, without putting their livelihoods at risk.

In Colombia, one in three people does not consume fruit, five out of seven do not consume vegetables, one in four consumes fast foods, and one in five consumes sugary drinks each week. In households, the role of women is essential, since they are often the decision-makers regarding what and how to eat. However, it should not represent an additional burden to the multiple gender roles and inequities that already exist, but rather an opportunity to improve the health and integration of families around food, as an opportunity to recognize themselves, and their territory.

Eating with the planet in mind should translate into a triple bet in Colombia: eat more varied, where the dish represents the country's biodiversity; eat more local, favoring the best production practices with agroecology as the engine of transformation; and reduce loss and waste, to achieve a more efficient and equitable system.

## RECOMMENDATIONS

Agreeing on what, how, and where to produce food is an essential step to achieving a solid, sustainable food system that adapts to climate variability and growing market uncertainties, among other variables. To do so, it is necessary to recognize the natural supply of the different territories and give a voice to those who produce, especially small producers. With participatory, inclusive, and differentiated agreements, when applicable, the mechanisms are enabled so that the changes in the system last: there is trust, support, and a shared understanding of how to produce better, for people and nature. In the most biodiverse country in the world per square kilometer, this means also turning to science to understand better the dynamics that shape landscapes, to make more informed decisions.

From the perspective of diets, it is relevant to recognize the power of diversity and regional particularities. Advancing regional dietary guidelines, as well as their dissemination and appropriation, is essential to include more actors in the conversation. The food agenda must be a shared one that goes beyond health and nutrition, the main areas usually involved in creating solutions. Incorporating nature in the search for fixes to an unsustainable global food system requires an additional effort in dialogue between institutions, actors, and regulations, with a more comprehensive view.

In Colombia, we need to overcome all the causes of malnutrition, and we must also ensure that nature can continue to sustain our growing demand for food at national and international levels.

## STAKEHOLDERS SUPPORT

A full range of stakeholders will be required to implement national-level food systems transformation - including policymakers, the private sector, scientists, non-governmental organisations, the private sector, and individuals. Explicitly, smallholder farmers, women, youth, indigenous people, local communities and other historically-marginalized and vulnerable people need to be involved in shaping transformations.



Synthesis by **Carolina Escallon Wey** and **Camila Paula Cammaert Gutierrez**, WWF-Colombia