

In a foreword

Dear readers,

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To the ones that spoke on or attended our conference, thank you all very much! This conference was in a new format for WUWM as we had to do it both online and onsite but I believe it was a great success and an important event for our sector.

Food systems are complex networks of actors focusing on different aspects but are mostly interconnected. They touch every edge of our society and their transition toward resilience and sustainability cannot be solved by a single and isolated actor of the food chain. If we want to have an impact, we need to do it collectively.

The World Union of Wholesale Markets is deeply committed to foster multi-stakeholder initiatives able to transform the way the world produces, consumes and thinks about food, and promote widely affordable, fresh, healthy, nutritious and sustainable diets. Together we are shaping systems in which no one is left behind.

We are at crossroads and we have to reflect together, on what tomorrow's system will look like and to find enablers for sustainable changes. Our Global Conference held in Florence its main vision relies on this. We are therefore delighted to dedicate this July Newsletter to our Conference held in cooperation with Mercafir, titled "Fresh food distribution in the post Covid-19 world: Challenges, opportunities and pathways to ensure resilient and sustainable food systems and access to healthy diets."

The Conference covered a wide array of topics from questions related to how to ensure healthy diets for the planet whilst fostering better consumption patterns, to reflections on the future of food in the post-Covid-19 world with sustainability, better food logistics and inno-



vation for resilience in the food supply chain.

To reflect on this, we had the opportunity to engage with high level speakers who joined us, to provide their valuable insights. We would like to sincerely thank them for joining this particular important event for WUWM. But we would also like to express our deepest gratitude to all the attendees representing the entire panorama of the agri-food sector, from wholesale markets and retail markets representatives, to academia, government officials, international organisations, NGOs, the private sector and many other experts. WUWM's conference in Florence, Italy was a major success with over 400 participants of whom 350 people were participating online and around 70 on-site. Thank you to our wholesale market member Mercafir for making this possible!

All together we are working with a common mission: to ensure equal access to affordable, healthy and sustainable fresh food worldwide. Exchanging solutions and pathways to address structural issues such as climate change, Covid-19 and future pandemics, and rapid urbanisation worldwide.

As the conference coincided with this year's 2021 UNFSS, we stressed its importance and that of the gathering of major actors of the food sector to determine a way forward. Thank you all once more for the fantastic conference and we hope to see you all at our next one!

Yours sincerely,

Stéphane Layani

In the loop:

Conference Summary



On the 25th of June, WUWM organised a Global Conference in Florence, titled "Fresh food distribution in the post Covid-19 world: Challenges, opportunities and pathways to ensure resilient and sustainable food systems and access to healthy diets." It was a unique opportunity to gather a wide-range of agri-food stakeholders, from wholesale and retail markets representatives, logisticians, start-ups, academia, governments officials, international organisations, NGOs, the private sector and many more.

The diversity of participants enabled to collectively reflect on potential "game-changing solutions" addressing multi-dimensional challenges in a systemic way such as the promotion of healthy diets, food systems transformation, the future of food in the Covid-19 aftermath, fresh food logistics, and innovation for resilience.

We had the opportunity to open the conference with high-level speakers in the plenary session, including FAO's Director-General Qu Dongyu, **UN-Habitat Executive Director Maimunah Mohd** Sharif, the Mayor of Florence and President of Eurocities Dario Nardella, Executive Director of GAIN Lawrence Haddad, Deputy to the Special Envoy of the Food Systems Summit Martin Frick, FAO Director of Food Systems and Food Safety Division Jamie Morrison, Professor of International Agricultural Policy Andrea Segrè, Author and expert Carolyn Steel, Chairman of WUWM Stéphane Layani, Chairman of Italmercati Fabio Massimo Pallottini, Chairman of China Agricultural Wholesale Market Association (CAWA) Ma Zengjun, and President of Mercafir Giacomo Lucibello.



FRIDAY 25th JUNE 2021

Together they highlighted that the Covid-19 pandemic sheds a light on how fragile our food systems are and how complex it is to ensure affordable healthy diets to all. FAO estimated that around 3 billion people who cannot afford a stable intake of healthy food. Risks in terms of affordability and accessibility of healthy fresh food are to be worsened if a systemic approach and food systems transition are not undertaken.

All of this is part of the purpose of the 2021 United Nations Food Systems Summit by inviting all countries worldwide to think about how to reshape their food system so that we ensure a sustainable and healthy food sector by 2030. So far, 135 countries have been organising national dialogues and are collecting challenges that they are facing with proposals of solutions. WUWM's conference was fully aligned with the 2021 UNFSS's goal: to leave no one behind in the transition to affordable, accessible and sustainable food supply.

Speakers agreed upon the fact that wholesale markets are fundamental players to ensure food security and accessibility to healthy diets

Speakers agreed upon the fact that modern wholesale markets are fundamental players in ensuring availability of healthy diets in a regular basis. Particularly in a world were 70% of the

population is expected to live in cities and a resilient and regular supply of adequate volumes of fresh food is needed. Participants noted that wholesale markets acted like a buffer during the pandemic, limiting the impact of the restrictions in food distribution to urban areas.

Also because they are ambassadors of fresh, seasonal food, and as they are the only platforms ensuring a wide availability of produce – some wholesale markets have more than 10000 references of produce- they are key actors to promote shift in consumption patterns, as they can ensure a diversified availability of healthy food. Last, they have a crucial role in redistributing food to the most vulnerable communities and limiting food waste. However, being for a long time invisible for the general public, in some countries they suffered from institutional recognition of their role leading to a lack of investment to renew their infrastructure.



Among potential pathways to ensure sustainable food systems worldwide it was recognised that we need to upgrade market infrastructure to be more efficient, sustainable, inclusive to better strengthen the agri-food sector.

Beyond all the challenges that the pandemic brought, it also represents an opportunity for the agri-food sector to reinvent itself and to develop resilient and sustainable food systems, to reconnect territories and people with their food environments. And at the heart of this transformation: wholesale markets.

Post-Covid-19 food systems are also systems in which innovation, digitalisation and e-commerce are gaining in presence. Such reconfiguration of distribution, flows and spaces, implies therefore the development of new frameworks to improve the quality control procedure of food and food safety.

Tomorrow's food systems should be more localized, with shorter supply chains, adapted to food cultures, inclusive, promoting accessibility, low-carbon intensive and with drastic reduction of food waste and losses.

WUWM Global Conference was a crucial event, in which wholesale markets were often referred to as the "hidden middle" of the food supply chain. They are at the epicentre of food systems transition towards resilience and sustainability. We are delighted to share with you a glimpse of these fruitful presentations and discussions that we hope will enable to make a significant different for our future!

In facts:

- Global food prices have risen by 38% since January 2020.
- Around 3 billion people in the world are currently unable to access in a regular basis to healthy diets.
- Poor people in developing countries often spend 60-80% of their income on food. Whilst in Europe and America the average is around 11%.
- Today, over 2 billion adults are overweight and obese, and diet-related noncommunicable diseases including diabetes, cancer and heart diseases are among the leading causes of global deaths.
- The world is not on track to achieve Zero Hunger by 2030. If recent trends continue, the number of people affected by hunger would surpass 840 million by 2030.

Around 3 billion people in the world are currently unable to access healthy diets on a regular basis

In focus:

WUWM's vision to ensure sustainable, accessible and healthier diets worldwide

We are happy to share the main ideas and vision that WUWM's Chairman Stéphane Layani shared during the plenary of our conference high level plenary session "Healthy diets for the planet: challenges and pathways to ensure sustainable food systems worldwide":

" Is time now to reflect and imagine together how we can provide healthy diets for the planet with a long-term scope. If food security and food system sustainability was already a major topic in political agendas, the Covid pandemic leaves no doubt about the must to collectively act to transform our food systems.

While the world's population is rapidly increasing, and land degradation is exacerbated by climate change, it is clear that ensuring food security will be among one of the key challenges of the 21st century. In 2050, the world's population is projected to increase to 9.8 billion from 7.6 billion. Almost 70% of the population is expected to live in cities, which is two thirds of the global population. Simultaneously, 70% of all agricultural land globally is experiencing extreme degradation and climate change risks accelerates this trend. These challenges will exist alongside rising food prices and a growing demand for increased supply and diversification of food.

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All these facts show us how urgent it is to gather the major stakeholders together to enhance pathways to ensure a healthy, equitable and sustainable food future.

We are lucky enough to have this year a unique opportunity to engage in real commitments towards this transformation now, as in the context of the forthcoming United Nations' Food Systems Summit every nation of the world is going to be speaking, thinking and hopefully taking clear engagements to develop sustainable and resilient food systems.

This is the second time, the last one was 20 years ago, that the UN is organizing a food summit. At the foremath of the UN summit, we have today an exceptional opportunity to envision together concrete actions that can address the challenges and pathways to succeed in developing sustainable food systems.

Today is time for all of us to take action and engage to make our food systems sustainable and resilient. For sure, transforming tomorrow's food systems is a complex task, but I believe that the Covid-19 crisis is also an opportunity to adapt our approaches.

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Let me explain my point: We have all seen that the COVID-19 pandemic has upset the food system like never before, showing in a clear way the disparities of food systems resilience around the world. Starting from march last year, we have witnessed disruptions of food supply chains: from logistical issues, a shortage of workforce, and radical changes in demand. Each country



shared challenging moments, but some countries experienced less disruptions, price volatiles and food shortages than others.

The role of wholesale markets was, in this sense, reflected in several dimensions of the effective functioning of the food supply chain. During the first wave of lockdowns, wholesale markets showed their essential role to sustain the agrifood chain. Whilst other agrifood chains broke apart, the multiplicity of actors working within wholesale markets helped to ensure resilience and quickly find solutions when one of the supply channels was not working.

It is a fact that in countries that count upon modern wholesale markets accessibility and availability to healthier diets is better ensured. After the crisis, national and local governments from all over the world recognized the pivotal role that wholesale markets play to guarantee greener, more resilient and sustainable food environments capable of ensuring daily accessibility to healthy diets.

Our infrastructures play a crucial role to structure upstream and downstream the fresh food actors, acting as a virtuous catalyzer for the sector. Wholesale markets are today the unique structures that can ensure a resilient linkage between fresh food production and consumers, particularly in urban centers were high volumes of produce is needed daily.

Wholesale markets:

- facilitate short supply chains
- give access to a market for the farmers, and particularly small and medium size ones, which are the ones that contribute to 70% of the food produced globally, while only using 30% of global resources
- promote a larger diversity of fresh food concentrated in one place: some markets have more than 10.000 fresh food produce references!
- play a key role as price-setters and in price transparency,
- facilitate better articulation between major actors farmers, logisticians, street markets..-.
- they ensure right amounts of volumes, what we call daily "food availability" for growing cities,
- and make it easier to ensure traceability of produce

Wholesale markets are today the unique structures that can ensure a resilient linkage between fresh food production and consumers, particularly in urban centers were high volumes of produce is needed daily.

By putting together most of the fresh produce offers in one place they foster better/smarter logistics and have the potential of helping to drastically manage to reduce food waste and enhance circular economy in our sector.

Despite all this important function that they play, I must say that wholesale markets roles were for longtime disregarded, what was probably because they have this "middle role", that often makes them invisible.

But, would you imagine a world with airplanes but without airports? Well, the same applies for fresh food! Accurate fresh food supply requires adequate infrastructures and know-how linked with improvements in urban food policy planning. Unfortunately, the food-sector is more complex than airplanes. Our world is composed by a mosaic of food systems, with cultures expressing their own identities, diversified production, shopping and eating patterns rather than a standardized food system.



Of course, food systems are complex cultural related networks. We must find pathways to feed our global population with balanced, healthy and nutritious diets, in accordance with cultural and local realities. Standardized approaches have revealed their limits and colossal costs on our ecosystems, environment, health and societies in the past.

Yet, our experience guaranteeing supply of fresh, healthy diets worldwide show us that we can also propose some common pillars to ensure effective ways of ensuring sustainable food systems. This means of course also to enhance investments in the structuration of the food sector at national and local level and making food security a major sovereign mission of every state through articulated food governance policy. Multistakeholder dialogues must be fostered between local, regional and global scales in order to achieve a sustainable food system that combines economic, social and environmental sustainability.

But also, to succeed in creating sustainable resilient food systems it is a must to adopt a systemic and coordinated approach. I am convinced that the only way of doing, is by engaging all the stakeholders along the chain. In this sense, again as they gather a myriad of stakeholders and because of their responsibility to supply fresh food to cities across the world, wholesale markets can contribute in this shift of paradigm and can be at the forefront of this new way of doing food policy. Wholesale markets' mission is to ensure an easier accessibility to the market for producers and effective distribution of affordable, fresh, healthy, nutritious and sustainable food to all, in compliance with the Agenda 2030.

WUWM had the opportunity to organize four insightful independent regional dialogues in the frame of the United Nations food system summit, respectively for Asia-Pacific, Latin-America, Europe and Africa, to further understand challenges, opportunities and "game changing" solutions to achieve healthier food systems adapted to regional realities.

As an outcome of this dialogues, where more than 250 experts participated, we identified a threefold challenges that countries around the world are facing:

- 1. accessibility,
- 2. affordability and
- 3. sustainability.

First, accessibility. Inequality of access to nutritious, healthy and sufficient food remains a reality of many livelihoods. Severe and moderate levels of food insecurity concern about 26% of the global population, mostly living in Asia and Africa. This lack of access to regular healthy food, in terms of quantity and quality, puts people's health, nutrition and well-being at risks. This situation has been deepened by the Covid-19 pandemic globally.

How can we make it accessible for all people to have access to healthy food and choose for these food options? By improving food environments. For that we need a robust system that can ensure fresh food availability on a daily basis. Today, 90% of street markets are supplied by wholesale





products that come from our infrastructures!

Second, affordability. Healthy diets are unaffordable to many people around the world. The most conservative estimates shows that they are unaffordable for more than 3 billion people in the world. Thus, it is crucial to foster alternatives to ensure affordable healthy diets to all segments of the population, in a sustainable food system by 2030.

To achieve so, short supply chains as well as street markets need to be promoted which will ensure local high-quality nutritious food for affordable prices. Wholesale markets can have a significant impact on this issue by shortening the food supply chain, but also by creating a conducive environment with raising awareness activities or support diet-related health programs and food-redistribution for lower income households. For instance, WUWM organizes the "Love Your Local Market" campaign. This global initiative celebrates wholesale and retail markets, with over 4000 participants in 19 countries. It is a unique opportunity, not only to connect livelihoods to their markets, but also to reconnect them to food, flavors and seasonality. And to help change people's eating patterns!

Last but not least, sustainability. Achieving sustainable food systems by 2030 requires significant action. Agriculture and food related activities are accounting for at least one third of total greenhouse gases emissions. In addition to that, standardized agricultural practices are responsible to the degradation of biodiversity and are affecting the availability of food. Over the last 100 years, more than 90 per cent of crops varieties have disappeared.

Scarcity is an issue that we must also address, in particular in a context of growing demography. If I can present you an example: it can take up 50

liters of water to produce an orange. Losses in fruits and vegetables represent a waste of increasingly scarce resources such as soil and water.

With the climate change crisis affecting our livelihoods and the opportunities for future generations, we must revisit our systems in a way to be low-carbon-intensive. Wholesale markets can drive this transition by finding better optimization of food distribution.

How? Through better logistical chains, the implementation of transparent traceability, better integration of the cold chain along the food supply chain, better communication and coordination between supply and demand thanks to data and innovations and by ensuring rich food environments in cities.

We are actively de-congestioning our logistics to reduce environmental impacts. In addition to that, we participate in:

- The promotion of investments on green energy
- Low-carbon infrastructures and storage facilities
- Efforts in the reduction of food waste and losses in both domestic side but also along the value chain.
- And the promotion of circular-economy, by upcycling or recycling the unsold produce.

For all this, I believe that modern wholesale markets can be a game changer to ensure healthy diets around the world.

That is why I believe that it is crucial for us to have platforms like the World Union of Wholesale Markets to foster insights, good practices, and the debate to pursue together the transition to a healthier and sustainable food system".

Interviews with two key-speakers of our conference:

Dr. Haddad (GAIN) and Dr. Alqodmani (EAT)

We had the pleasure to interview two of our key speakers from organizations that will have significant impact on the future of our food systems.



Dr. Lawrence Haddad, Executive Director of GAIN

1. Could you briefly introduce your key-note major conclusions?

We need to build forward better on food systems. This means making food systems more resilient. Examples includes protecting the food security and nutrition of food system workers through workforce nutrition programmes, getting more finance and TA to small and medium enterprises who are the backbone connecting food producers to consumers and keeping food markets open in pandemics through the correct protocols and food safety procedures.



2. What do you think are the main challenges facing our sector?

Working in a systems way, from farm to fork and across multiple food system outcomes. This is not easy to do, we don't have many examples and it requires some institutional innovation and more data and evidence.

3. What are in your opinion the answers to respond/ solutions that meet the challenges identified?

- Workforce nutrition programmes for workers in the food system
- Social protection to protect those below a living wage
- SME finance to SMEs generating nutritious and safe food in a sustainable and an inclusive job creating way
- Keeping food markets open and safe
- Developing systemic cooling solutions

4. To what extent do you think WUWM and its members can contribute to making the food industry more sustainable and resilient?

Retailers and wholesalers are a critical food environment—where consumers come face to face with food. Consumers have preferences and they need choices. Retailers can create healthy food environments by how they organise physical layouts and via their price promotions. Wholesalers can aggregate food from small producers in ways that allow small producers to have access to fresh food markets, e.g. via community cooling hubs. Wholesalers can reward SMEs producing healthy and sustainable food with preferential contracts and terms (e.g. rental space and utility bills).



Dr. Lujain Alqodmani, **Director of Global Action** at EAT

1. Could you briefly introduce your key-note major conclusions?

We need to urgently and radically transform our food systems to deliver on the Sustainable Development Goals(SDG), limit food systems environmental impacts on the plant and save millions of lives from malnutrition and diet-related non-communicable diseases. This include dietary shifts towards healthy, safe, and sustainable diets that should be available and accessible for all.

To shift consumer's behavior, actions and interventions need to be culturally-relevant and resonate with social norms. In addition, proposed actions need to influence consumers' emotional appeal, knowledge, social influences and choice architecture with set of policies, regulations and material incentives.

2. What do you think are the main challenges

particularly in relation to national regulations trade agreements and market access

3. What are in your opinion the answers to respond/ solutions that meet the challenges identified?

- Product eco-labeling and with nutritional values to better inform consumers about their food choices e.g. information about the origin of the product and date of production
- Keep the healthy and sustainable choice the visible option on visible shelves
- Capacity building and staff training to develop new operational functions in relation to food safety, storage, and visibility of the right products.
- Partnership and collaboration with other sectors including public and private to set up national food system pathways and implement national food-based dietary guidelines

4. To what extent do you think WUWM and its members can contribute to making the food industry more sustainable and resilient?

WUWM can develop tools and resources to help local markets to develop strategies and actions for healthy and sustainable consumption: enhancing product experience, inform consumer choices and reduce food loss and waste. It can also be the open- and global platform that brings different members together to share lessons-learned, best practices and for peer-topeer learning





WUWM 2021 Conference Roundtable summaries

During our conference we had four roundtable sessions with high level key speakers and with an open dialogue afterwards. Each of which featured expert insights and led to valuable ideas summarized here below. We sincerely thank all speakers for their participation and dedication to our conference and for the great insights they share with us in order to build together greener, sustainable and fairer food systems

Roundtable 1 - Tackling the challenges of Covid-19: Lessons learned and opportunities to improve sustainability in the food system

The roundtable 1 was chaired by Jordi Valls from Mercabarna, Spain with the participation as key speaker of Arturo Fernandez, WUWM Chairman of the Americas Region and President of FLAMA, James Tefft - FAO Invesment Unit, and Dolores Roman Gallego, Mercamadrid, Spain.

In this roundtable various successful approaches that wholesale markets have taken to combat

the challenges of the pandemic were presented and discussed. Among others, Director of Corporate Development at Mercamadrid Dolores Roman Gallego mentioned that Mercamadrid based it crisis management strategy in four pillars: information, coordination, transparency, and discipline/control. Rapidly after the pandemic outbreak they applied online trainings for staff and increased spread of information to be aware of the latest updates and solutions to disruption problems. Ms Roman Gallego pointed out that the pandemic led to the following lessons in her wholesale market:

- Fostering the development of multiple channels to operate is crucial to adapt to rapid changing situations. The increase of online selling was in this regard one the major successful adaptations.
- The need of a multistakeholder crisis task group that allows fluid and rapid communication and adaptation to problems with rapid decision making,
- A strong and diversified supply network: wholesale markets showed to be more resilient during the pandemic in comparison to big retailer platforms

Ms Roman Gallego things that in the future wholesale markets should concentrate in three major subjects: digitalization, sustainability, and internationalization.

Arturo Fernandez, Director of Americas Group at WUWM and President of the Latin America Federation of Wholesale markets (FLAMA) and Mario Rivero from FLAMA added that collaborations among Latin American wholesale markets have played and will play a key role in creating resilient wholesale markets. During the pandemic a wide range of markets in Latin American worked together to support one another through a WhatsApp group and a digital platform to ex-

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change problems, ideas and good practices. In Americas region the members are promoting three key ideas to advance wholesale markets:

- 1. Establishing alliances between agri-food organizations, such as the collaboration between FLAMA and the FAO on how to improve the Latin America food system together, also in the context of the pandemic
- 2. Create a hub for innovations and collaborations that can be applied between wholesale markets and other stakeholders (local farmers, universities, start-ups), test them in some markets and scale them up if they succeed.
- 3. Establishing partnerships to reduce food waste and examining the measures to take to accomplish this

James Tefft from FAO's Investment Centre highlighted some of the initial findings of the study that he is leading - in collaboration with WUWM-, Mr. Tefft mentioned that the world is rapidly urbanizing, especially in Africa and Asia. This is not just happening in the largest cities, but there is also rapid growth in secondary towns and cities. Along with urbanization, food consumption and demand are equally rising. It is therefore crucial to look at our food system infrastructure and its distribution channels. In thie FAO study Wholesale markets have been identified as critical in efficiently and resiliently supplying rapidly growing cities and allowing food systems to be ready for crisis. Mr. Tefft mentioned that countries with organized and upgraded WFM infrastructure networks provided higher resilience and a better capacity to deal with disruptions.

The study is called «Upgrading wholesale

Countries with organized and upgraded wholesale market infrastructure networks provided higher resilience and capacity to deal with disruptions

the world, the study aims to identify investment areas to upgrade markets to resilient modern wholesale food markets.

In the general discussion participants suggested that countries with organized and upgraded wholesale market infrastructure networks provided higher resilience and capacity to deal with disruptions. Wholesale markets can ensure this and are therefore key actors in this urbanization trend. In this sense it is crucial to enhance major investments in the structuration of the food sector and start treating food accessibility/food security as a major sovereign mission of every state through articulated food governance policy.



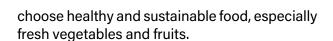
Roundtable 2 - Fostering healthy food consumption patterns in the post-Covid 19 world

Eugenia Carrara, Secretary-General of WUWM was the Chairman speaking with Dr. Lujain Alqodmani, Director of Global Action EAT, Dr. Chris Meija Argueta, Massachusetts Institute of Technology (MIT) Food and Retail Operations Lab, Alexandra Nikolakopoulou, Head of Unit "Farm to Fork", European Commission, Jean Paul Auguste, Director of Retail Markets WUWM, President of Groupe Geraud, France, and Sean Decleene, World Economic Forum.

At the onset of the pandemic in 2019, 25% of the world struggled to eat "safe, nutritious and sufficient food" according to the UN's State of Food Security and Nutrition in the World report. With disruptions due to the pandemic, this has mostly not changed for the better in particular regarding obesity. And if the current trends continue, it is estimated that global food demand will increase with 50% by 2050, leading to more than 4 billion people in overweight circumstances and 1.5 billion obese while 500 million people continue to be underweight. Oils and fat in daily diets are still increasing faster while the intake of sugar is not significantly decreasing.

According to EAT, if current trends continue global food demand will increase by 50% by 2050, the demand for animal products like meat and milk will more than double. More than 4 billion (45%) people could be overweight, 1.5 billion of them obese (16%) while 500 million people continue to be underweight

Therefore, all speakers agreed on the importance to change food consumption patterns, boost the demand of healthier products, and to understand behavioral changes in order to effectively drive the food transition towards resilience, food safety and sustainability. It is crucial to empower and motivate consumers everywhere to



Dr. Lujain Algodmani pointed out that there is a need of more widespread availability, awareness and uptake of healthy diets, notably by understanding behavioral changes. The major question is how to motivative consumers to change their eating habits? For creating such environment Dr Algodami stated that we should focus on 2 areas: (i) a healthy food environment (that entails policy measures, and actions along the value chain such as public procurement); and (ii) food markets access to empower SMEs and farmers. In addition to that, it is important to work on consumers' perception of healthy and sustainable diets through product reformulation and innovation, improve their knowledge and create intrinsic motives through experiences.

Dr. Chris Meija Argueta, from the MIT, converged on this point but added that we first have to identify the entry points and dynamisms to adequately address targeted issues. The most important challenge is related to supply chain management and logistics, and then to accessibility, affordability of healthy food and awareness of citizens on the benefits of healthy diets. In this sense Dr Mejia argues that wholesale markets can provide access to ensure availability and quality in the long term and play a major role of bridge among all the fresh food stakeholders. In the future they could be also key actors supporting short supply chain and to promote locally seasonal products.

Alexandra Nikolakopoulou, Unit Director at the European Commission presented the Farm to

the Fork strategy, adopted by the European Commission right after the pandemic, in the frame of the Green Deal which is the new sustainability agenda of the European Union (EU).

Wholesale, retail and small fresh food shops play a core role providing a wide variety of fresh products to promote healthy diets to all

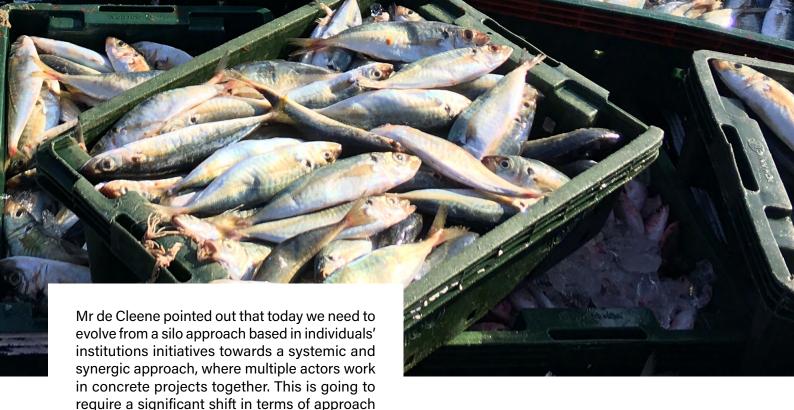
The sustainability of food systems is in this sense at the heart fo the Green Deal, she stated. Making the heathy and sustainable choice for consumer is one of the key objectives of the this Strategy. The situation is worrying in the EU as the consumption is not aligned with the targets, as European intake of fruits and vegetables remain lower than the WHO recommendations in most countries. Diets are in this sense not only an issue of individuals choices, but they are related with education, information and marketing.

Ms. Nikolakopoulou presented in this sense the Code of Conduct for Responsible Business draw an engaged pathway towards EU objectives to help citizens to make the "healthier choices" in regard to food consumption the easier one. The Code will be presented at the UNFSS as a game-changing solution as an inclusive collaboration process among all the stakeholders to reach the SDG.

Jean-Paul Auguste, Director of retail markets at WUWM, placed an emphasis on the core role that wholesale, retail and small fresh food shops plays for providing a wide variety of fresh products to promote healthy diets to all. Indeed, there is an interconnection between these layers as wholesale markets are the only ones that can provide today a large array of fresh products in a regular basis and in right quantities to cities. Countries with a high amount of street fresh food markets were citizens can have easy access to fresh food at convenient prices is crucial to foster healthier diets. Events like WUWMs Love Your Local Market (LYLM) an annual campaign were for 2 weeks different animations are undertaken in almost 20,000 street markets all over Europe have the potential to bring more people to the fresh food markets fostering therefore healthier food consumption pattern.

Finally, Sean de Cleene brought forward the importance of revisiting food systems. To succeed he points out the urgent necessity of building collaboration and integrate all agri-food stakeholders to move towards inclusiveness and sustainability. He mentioned the 2021 UNFSS is a unique opportunity to do so as it takes into account the entire food system.





Roundtable 3 - Fresh food logistics during the pandemic and beyond: strategies to ensure reliability, safety and efficiency

and will require a quick catch up in terms of in-

novation and digital transformation.

The Roundtable 3 was chaired by Ioannis Triantafyllis, WUWM Vice-Chairman, General Manager of Central Markets and Fisheries, Greece that spoke with Dr. Luca Lanini, Catholic University of Rome, Italy, Benoit Juster, Rungis Market, France, Dr. José A. Larco Martinelli and Dr. Claudia Antonini, Massachusetts Institute of Technology (MIT) Food and Retail Operations Lab – UTEC, Dr. Yadav, COSAMB, India, and finally, Kobenan Kouassi Adjoumani, Minister of Agriculture of Ivory Coast.

Speakers stressed the importance to develop consistent food policies, taking care of adequate infrastructure and logistics, that could ensure sustainability and the provision cities in a highly urbanized world.

This panel was opened by Professor Luca Lanini who stressed the importance of full loads logistics to ensure sustainability and the provision of urbanizing cities. Another important aspect of making logistics more sustainable is developing logistics platforms, bringing together markets, cold chain, logisticians, and more stakeholders. To further improve and increase efficiency of fresh food logistics, Dr. Lanini mentioned the importance of innovations on the areas of digitalization and transparency as they will provide huge advantages in ensuring reliability, safety and efficiency. Dr. Lanini also highlighted that multimodal systems will be key for the future in which all different modes of transport and stakeholders are connected. An example of this is the collaboration among different stakeholders to make energy usage more sustainable in Italy with the government, markets, and energy organizations involved.

Benoit Juster from Rungis Market in France and Dr. Yadav from COSAMB in India highlighted the challenges of wholesale markets in regards of logistics during the pandemic. Covid aggregated problems of logistics between farmers, wholesale markets, and their clients, and created imbalances of supply and demand, employment imbalances, and more food loss along the food supply chain.

A specific market example of innovative strategies to ensure reliability, safety, and efficiency in regards to logistics was provided by Mr. Juster: Rungis developed a delivery service in which the market partnered with the smart-logistic startup Califrais to deliver fresh food using an online platform. Mr. Juster mentioned that this startup was born at Rungis Incubator, showing that it is

important to provide seed-investments to create start-ups within wholesale markets.

Two scholars from the Massachusetts Institute of Technology (MIT) Food and Retail Operations Lab – UTEC, Dr. José A. Larco Martinelli & Dr. Claudia Antonini identified further problems and solutions that occurred in food logistics during the pandemic. Using different layers, they for example identified problems with inbound logistics such as congestion and food loss in handling. Actions that could help face those problems included the implementation of time slots, and the queuing of orders.

Dr. Martinelli and Dr. Antonini also identified that even more farmers went to the cities to sell their produce due to the disruptions in logistics. This was not the most efficient and sustainable approach for the food system as the time they spend selling they did not spend on the farm. They identified that it is essential to improve the connection between farmers and markets so that situations like this can be avoided or addressed properly. Wholesale markets have a key role in this as they can and are reaching out to smallholder farmers to ensure local supplies of healthy and seasonal food.

Dr. Martinelli and Dr. Antonini further mentioned that research shows that investment in logistic infrastructures and cold storage can ensure less food waste, perishability, and cross-contamination.

Finally, the Minister of Agriculture of Ivory Coast, Kobenan Kouassi Adjoumani, highlighted that around 30 percent of Ivory Coast's agricultural production does not get to their markets due to problems in storing, logistics, and infrastructures. A new approach in his country will ensure that markets are better connected to agrifood networks so that all can benefit from best practices and common solutions. Also, they are devoted to apply part of the funding they receive from the World Bank in improving infrastructures of wholesale markets so they become more resilient, sustainable, and able to supply the growing population with fresh food.

Research shows that investment in logistic infrastructures and cold storage can ensure less food waste, perishability, and cross-contamination.





The Director of Milano Market, Cesare Ferrero chaired Roundtable 4, discussing with Masami Takeuchi, FAO Rome, Gonzalo Bravo, Lo Valledor Market, Chile, Altivo Almeida Cunha, FAO Latin America, and Pauline Jacquemard, from Rungis Market, France.

The participants agreed that new innovations and approaches to food system practices are reconfiguring food systems so that they are better equipped to deliver healthy and accessible diets to all people. Emerging innovations to produce, govern, process, and distribute food demonstrate a great potential to lead the transition towards a more resilient and sustainable food system. Nevertheless, there is a lack of data, information and funds to create reliable data in the food sector that could be crucial to enhance innovation.

Actors agreed in the potential of digital tools that can ensure complete food traceability possible, drastically improve logistics and make trading easier. Solutions related to smart logistics can reduce distribution routes and decrease pollution. Speakers stressed out on the necessity of acknowledging possible disparities in terms of accessibility and availability of these technologies in the various countries and food systems around the globe, and therefore the need for international funds to avoid leaving poor countries behind.

Participants also noted that innovations play a crucial role in the modernization of wholesale markets and their resilience to absorb shocks. Masami Takeuchi, FAO Food Safety Officer, emphasized that innovation is not necessarily extremely complicated or costly and can lie on simple but concrete food safety and biosecurity measures to be put in place. Relevant technology and innovation would then be supportive to this. FAO and WUWM are currently doing a joint project on food safety in Asia and LATAM and among recommendations that came out there are the need to have guidelines on food safety practices (though regulation and delegation), and raising public awareness and reliant information - traceability is the weak point in most markets-.

Game-changing innovations that can support the fresh food sector are blockchain utilities-having the potential in recording every step of a food's journey through the supply chain. Among others participants discussed use of the blockchain for virtual labelling for traceability (can help people to know how long their food: been going around and how it has been handled), and WGS-detection (helps rapid detection of harmful pathogens) and smart contracts for fairer/more transparent distribution of fresh produce selling price.

Pauline Jacquemard from Rungis Market in France presented Rungis market incubator. Rungis & Co was created in 2015 and has since incubated over 90 start-ups, providing a res17

ponse to the issues associated with food trade and distribution and supporting the food transition. The incubator supports and hosts project leaders and entrepreneurs starting new businesses to help them get their businesses off the ground in the best possible conditions and in interaction with the day-to-day activities and companies of the wholesale market. Rungis & Co supports professionals in the food supply chain in sectors as the supply, upstream and downstream logistics, ecological transformation of the value chain, including packaging and digitalization (transparency, traceability, invoicing, etc. and food transition. The incubator has already several success stories that became "game-changers" for the Market.

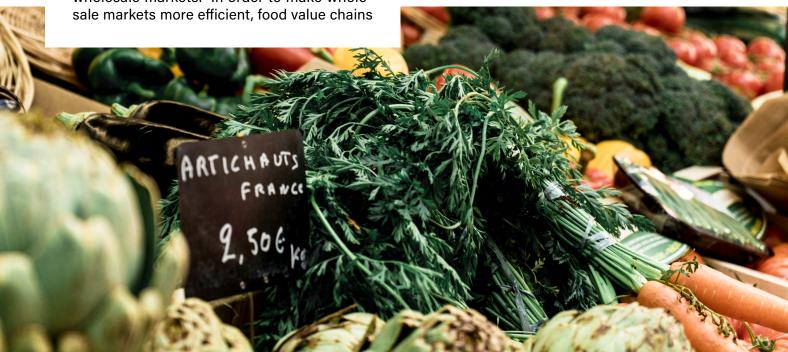
Gonzalo Bravo Baltra presented two innovative projects that Lo Valledor Market (Chile) has been working on to reduce food waste "Fundación Banco de Alimentos Lo Valledor" and "Programa compostaje". The first one was launched in 2015 and consists of redistributing food to vulnerable communities, while the second project that was launched in 2018 and is promoting circular-economy and the re-use of unconsumed food to animal feed or for compost. The market objective is to become a zero-waste market by 2030, and drastically reduce its carbon-footprint. Today the market recycle and upcycle almost 40% of the left-produce.

Altivo Almeida Cunha from FAO, pointed out that modernising wholesale markets is crucial as it will bolster resilience of the food value chain to absorb shocks. Due to the high rate of informality of commercial transactions in Latin America, investments in the digital economy are difficult to be made and therefore to modernize wholesale markets. In order to make wholesale markets are afficient food value shains

should be more territorially integrated. The modernisation of cold rooms, training of staff to develop new administrative and operation functions, better information and transparency are for Mr Cunha among the major challenges for LATAM region.

Speakers agreed that whilst some wholesale markets can develop these kinds of tools in some regions of the world this should be enabled by the government or international funds. A global incubator for wholesale markets and fresh food distribution/availability could be also a solution. Moreover, sharing expertise, education and raising awareness activities and having innovative ideas, streaming through different countries is key.

Innovations play a crucial role in the modernization of wholesale markets and their resilience to absorb shocks





Insightful:

WUWM and UN-Habitat Sign a Memorandum of **Understanding**

We have the pleasure that UN-Habitat joined forces with WUWM through the signature of a Memorandum of Understanding during our Global Conference in Florence.

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In the context of achieving the UN Sustainable Development Goals and the New Urban Agenda, this partnership will improve urban-rural linkages for resilient, inclusive and sustainable territorial food systems, as key component of sustainable cities.

Our new partner organization, UN-Habitat, is the UN Agency that supports more inclusive, resilient, safe and sustainable cities and human settlements globally. Their vision is to build "a better quality of life for all in an urbanized wor-Id". They work in over 90 countries and promote transformative change in cities and human settlements through knowledge, policy advice, technical assistance and collaborative action.

Markets and food systems are aligned with and supported by various areas of work of UN-Habitat, and especially wholesale markets. They represent a crucial provider of fresh food in both major cities, but also intermediary cities, peri-urban and rural areas, which makes them a part of a complex web of physical spaces, where



flows of people, goods and services occur on the daily, between rural and urban communities, through a diversity of parallel distribution systems.

That is why we are more than glad to announce the launch of a cooperation with UN-Habitat, which starts with a Memorandum of Understanding (MoU) that we have signed, in the context of multi-level and multi-sector approaches to achieve Sustainable Development Goals and the New Urban Agenda.

This Memorandum was signed by Ms. Maimunah Mohd Sharif, the Executive Director of the United Nations Settlements Program (UN-Habitat), and Mr. Stéphane Layani, Acting Chairman of the World Union of Wholesale Markets (WUWM).

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The main objective of this MoU is to provide a framework of collaboration on the development and implementation of joint action programs, projects, initiatives, campaigns and events of common interest with an emphasis on projects involving urban-rural linkages, planning of food systems, networks of public markets, energy and solid waste management in Africa, Asia, Europe and Latin America.

Among the primary expected results of our cooperation, we believe we will ensure: a greater

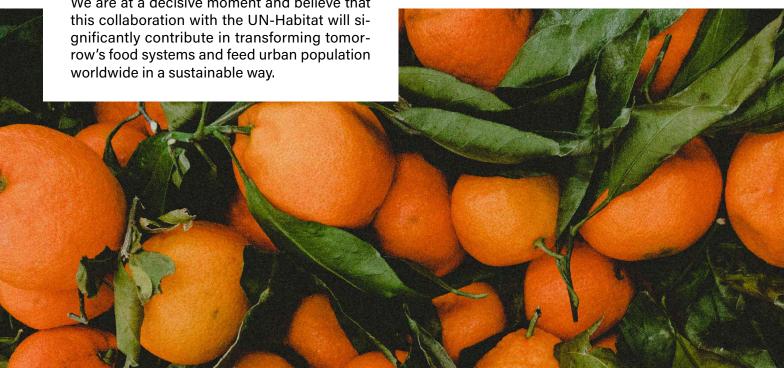


awareness on the importance of food markets and equitable distribution of markets for economic development; increased human human and financial capacity of local governments and other actors to optimise the use of public spaces as markets, local revenue generation, energy production and enhancing value chain; as well as the development of normative products (e.g. tools, guides, training manuals), policies, governance and bylaws and other regulatory and planning frameworks to support network of markets and food systems.

We are at a decisive moment and believe that this collaboration with the UN-Habitat will significantly contribute in transforming tomorrow's food systems and feed urban population The main objective of this MoU is to provide a framework of collaboration on the development and implementation of joint action programs, projects, initiatives, campaigns and events of common interest

UN@HABITAT







Remy Sietchiping, Chief Policy, Legislation and Governance Section at UN-Habitat

In this interview, Remy Sietchiping, Chief Policy, Legislation and Governance Section at UN-Habitat provides us with some insights on our partnership, its objectives and areas of actions to build resilient and sustainable cities with an integrated food policy to urban planning.

1. How did the cooperation between UN-Habitat and WUWM happened?

The cooperation between UN Habitat and WUWM was necessitated by the intersection of the works of both agencies. UNHABITAT mandate is enhancing sustainable urbanization in the cities and human settlements where activities of WUWM on markets systems are oriented. This is more specifically in the context of planning of the food systems and market systems, management of solid waste in the markets and the catalytic flows between urban and rural areas.

2. What are the most important objectives of this partnership?

The key objective of this partnership is to strengthen market systems, that improve urban-rural linkages for resilient, inclusive and sustainable territorial food systems, as a key component

of sustainable cities. Other specific objectives are:

- Improve knowledge, data and capacity to reduce inequalities and development gaps between urban, peri-urban and rural areas through legislation, planning, policy, governance, economy among others;
- Increase awareness on the importance of food markets and equitable distribution of markets for economic development, social inclusion including recycling of food waste for energy production and agriculture among others;
- Increase human and financial capacity of local governments and other actors to optimise the use of public spaces as markets, local revenue generation, energy production and enhancing value chain;
- Co-develop of normative products (e.g., tools, guides, training manuals), policies, governance and by-laws and other regulatory and planning frameworks to support network of markets and food systems;
- Develop, share and use case studies and inspiring practices on urban-rural linkages and food markets; an
- Establish partnerships and networks at global, regional, country and local levels to advance urban-rural linkages and food markets.
- 3. What does it mean for UN-Habitat to sign a Memorandum of Understanding with WUWM, an international network of fresh food and products?

UNHABITAT really appreciates this partnership with WUWM and sees it as a bridge towards serving cities and human settlements better through the respective the national and sub-national governments. This is first specifically aligned to the UN-Habitat strategic plan 2020-2023 that aims in two out of four domains of change 1) to reduce of spatial inequalities and poverty in communities across the urban-rural continuum and 2) enhanced shared prosperity for cities and regions. This can be well enhanced through strong market/food systems thus strengthening interaction and prosperity of Urban and rural communities. We also believe this partnership will accelerate our contribution and achievement of the SDG 11 and related goals as well as the New urban agenda.

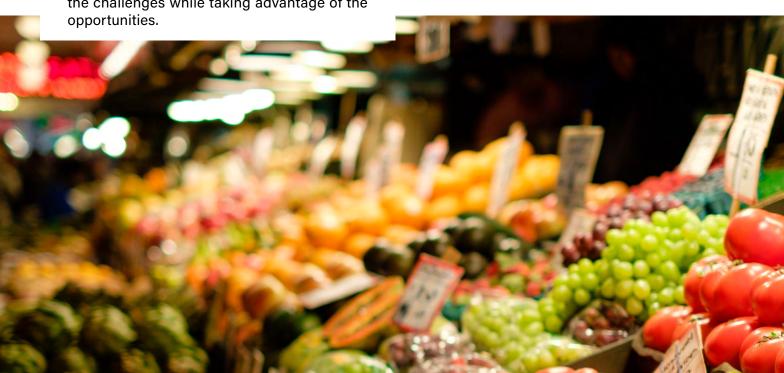
4. What are the main challenges that UN-Habitat faces to build inclusive, safe, resilient and sustainable cities and communities in the area of food governance?

UN Habitat works with partners such as FAO in the areas of food systems, urban-rural linkages and related areas, we are now excited to collaborate with WUWM as well in food and market systems related work.

Some of the challenges towards sustainable urbanization related to the food system include: food/markets waste management, informal traders, provision of services as electricity, water and sanitation to markets, access of markets by urban and rural communities, inadequate capacities by related stakeholders among others. UN-Habitat thus supports the respective authorities by building capacities, developing plans, policies, legislation and strategies to manage the challenges while taking advantage of the opportunities.

The key objective of this partnership is to strengthen market systems, that improve urban-rural linkages for resilient, inclusive and sustainable territorial food systems, as a key component of sustainable cities







WUWM and researchers from the MIT Scale Network are collaborating to improve the fresh food sector

WUWM has recently started collaborating with the Massachusetts Institute of Technology (MIT) SCALE Network. Together we can achieve better research done on the fresh food sector and apply science-based solutions and findings to wholesale market operations. We interviewed Dr. Christopher Meija Arguita, Dr. José A. Larco Martinelli and Dr. Claudia Antonini to learn more about the Network.

1. Could you briefly describe the MIT SCALE network for Latin America and the Caribbean?

The MIT SCALE global network is a network of six research centers that depend on the MIT Center for Transportation and Logistics (CTL). They do outreach, research, and education in topics related to freight transportation, logistics, and supply chain management. In Latin America and the Caribbean, the MIT SCALE research center relies on a private organization called LOGYCA. The center was founded in March of 2008 under the Center for Latin-American Logistics Innovation (CLI).

In addition, MIT and CLI created a set of alliances with top, prestigious universities in Latin America and the Caribbean to configure a network for investigating, analyzing innovative supply chain and logistics practices. This network was called the MIT SCALE network for Latin America

and the Caribbean to lead cutting-edge applied research and educational innovation that may bring a deep impact to the region.

The current network is composed of 38 universities to foster collaboration on research, education, and engagement throughout the region. Researchers and students at partner universities benefit from opportunities to collaborate with peers beyond their institutions, while the universities themselves gain access to the research resources of CLI, other universities of the network, and MIT CTL.

2. How did MIT get to know about WUWM?

A Ph.D. visiting student at MIT DUSP group named Joaquin Pérez warned us about one of the WUWM Latin-American dialogue events. Given that we were interested in getting in touch with the wholesale markets in our region, we participated in several roundtables of two dialogues (Europe and Latin America).

3. How do the objectives of WUWM intersect with that of the MIT SCALE network for Latin America and the Caribbean (LAC)?

The MIT SCALE network for LAC looks for facing and embracing the socioeconomic and logistics challenges of the region. Thus, we are working on several research topics:

- Data-driven and emerging technologies in Supply Chain Management
- Urban logistics and last-mile operations
- Retail operations for nanostores
- Humanitarian logistics and relief operations
- Supply Chain Management for micro and small firms

- Sustainability in supply chains
- Supply Chain Management for food and agri-business
- Logistics 4.0 and Digital Transformation
- Innovations in education-related to Supply Chain Management

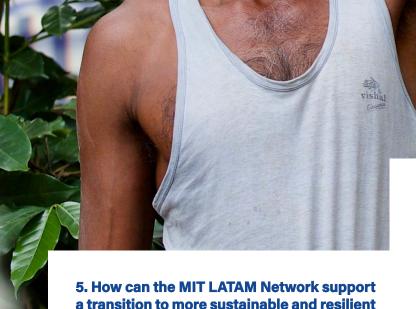
We envision a close relationship between the WUWM and the regional initiative "Supply Chain Management for the food and agri-business". The MIT Food and Retail Operations Lab (Fa-ROL) has been working closely with prestigious colleagues from Latin America and the Caribbean. This research area and the MIT FaROL aim to create effective SC strategies to ensure food accessibility, availability, and affordability for all population segments; as well as designing and deploying intervention schemes to drive consumer awareness and healthy intake. We have articulated a multi-disciplinary working group with the support of experts in spatial geography, social science, food science, nutrition, logisticians, and others.

Starting from the producers in the first mile, passing through the wholesale markets ending at retailers, and end consumers in the last mile. We are interested in helping smallholder farmers reach better prices for their products by making relevant price information available for them, reducing the losses and wastes throughout the chain by designing circular economy strategies inside and out the wholesale markets to distribute efficiently and on time of recovered food among food bank's beneficiaries. We are working hard on piloting innovative distribution strategies to make more fruits, vegetables, and legumes affordable and accessible to vulnerable population segments while guaranteeing food safety and combating food malnutrition.

4. What is the importance of wholesale markets in a future with a sustainable food supply?

Wholesale markets play a crucial role in current food ecosystems; however, we envision that their role may evolve to become an orchestrator in the forward supply chain between farmers, growers, and customers; as well as in the reverse supply chain to recover food from farmers, retailers, food banks, etc. Wholesale markets might help farmers get fair prices paid for their products and promote healthier assortments to facilitate nutrition starting at a city level. However, wholesale markets have to connect retailers and open markets to increase visibility, traceability as well as accessibility to all population segments. Finally, wholesale markets have to consider ways to migrate from just recovering food to adding it value through processing, cooking, etc.

Wholesale markets' role may evolve to become an orchestrator in the forward supply chain between farmers, growers, and customers; as well as in the reverse supply chain to recover food from farmers, retailers, food banks, etc.



a transition to more sustainable and resilient food systems?

- Creation and transfer of knowledge
- Network of experts from different disciplines and in multiple regions working food ecosystems
- · Academia serves a meeting point that is neutral, capable and trustworthy
- Internationally funded initiatives on food sustainability leveraging the network
- We are willing to learn from what the wholesale markets and their authorities may share to us in order to define well-articulated and actionable projects

6. How can wholesale markets support academic research conducted by MIT LATAM **Network?**

We can learn from benchmarking wholesale markets around the world to help the different supply chains and understand the demand shifts. We could experiment with different strategies learned from resilient/efficient markets adapted to other particular contexts to get important insights into the region. In fact, in one of the dialogues we participated in, we learned about a nice initiative, to manage food waste, happening in the main wholesale farmers market in Buenos Aires, Argentina, one of your partners.

7. What are some other areas where academia and wholesale markets can support each other?

- Estimating the relative importance with respect to total supply from WUWM members (i.e., markets) in supplying fresh products
- Design data collection methods, variables and stakeholders
- Standardize collected data from diverse **WUWM** members

- Analyze collected data to inform decision-making processes (e.g., assortment decisions, handling capacity, adapting to consumer's trends and patterns, influence of information for well-synchronized supply and demand, and bargaining power)
- Boost innovation and entrepreneurship to build more connections among supply chain stakeholders, recover food to combat food malnutrition, produce compost, reduce food safety issues, diversify the role of the wholesale markets, etc.

8. Where can we stay up to date with the work vour Network is undertaking?

Given that the main work will be done with the research initiative SCM for food and agri-business, the main updates will be observed at:

https://ctl.mit.edu/research/current-projects/food-and-retail-operations-lab

We can learn from benchmarking wholesale markets around the world to help the different supply chains and understand the demand shifts.



In WUWM's World:

June 3: WUWM met with UN-Habitat to discuss a pilot project called Feed Up to examine blockchain solutions in markets around the world

June 3, 18: We met with the MIT Scale Network to examine how we can best support each other and use research-based solutions in wholesale market operations

June 7: WUWM Chairman Mr. Layani participated in the 4th Food Systems Summit CEO Consultation and connected with influential CEOs finding pathways to sustainable food systems

June 9: WUWM met with the leadership of the Urban Food Systems Workgroup to discuss how our organization can support the group

June 10: WUWM's Secretary-General spoke at FLAMA online conference "Food security and management of Wholesale markets in Latin America"

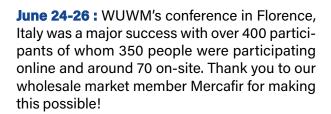
June 16: WUWM participated in the general stakeholder meeting for the development of the European Code of Conduct for Responsible Business and Marketing Practices which will be launched on July 5th

June 17: WUWM's Secretary-General spoke at the European Food Forum and showed the commitment of wholesale markets to support the Code of Conduct for Responsible Business and Marketing Practices

June 18: We met with EAT to discuss how our conference can be a great start to collaborations between our organizations. We are very thankful for their intervention and are looking forward to the future opportunities

June 21: WUWM attended the Demand Generation Alliance Global Launch in the SDG Tent. We are committed to support this alliance and promote increasing demand for healthy diets

June 21: WUWM attended the FAO's Green Cities Initiative – Signing Ceremony. We fully support the initiative by the FAO to create sustainable green cities around the world and will support in any way we can



June 28: WUWM participated in the UN Food Systems Summit Global Dialogue which brought together important food sector stakeholders to promote significant actions and commitments towards sustainable urban food systems transformation through exchange of perspectives of local government representatives and various urban food systems actors.

wuwm's conference in Florence, Italy was a major success with over 400 participants of whom 350 people were participating online and around 70 on-site. Thank you to our wholesale market member Mercafir for making this possible!











