

# Who is contributing to the Koronivia Joint Work on Agriculture and how?

A systematic analysis of actors' participation in the process

**BOOSTING KORONIVIA** 





# Who is contributing to the Koronivia Joint Work on Agriculture and how?

A systematic analysis of actors' participation in the process

### **Authors**

Dr. Claudia Heidecke Erika Angarita Dr. Nina Grassnick Dr. Nataliya Stupak (Thünen Institute)

Martial Bernoux Etienne Drieux (Food and Agriculture Organization of the United Nations)

### Required citation:

Heidecke, C., Angarita, E., Grassnick, N., Stupak, N., Bernoux M. and Drieux, E. 2022. Who is contributing to the Koronivia Joint Work on Agriculture and how? A systematic analysis of actors' participation in the process. Rome, FAO. https://doi.org/10.4060/cc0122en

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

ISBN 978-92-5-136227-3

© FAO, 2022



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization http://www.wipo.int/amc/en/mediation/rules and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

**Third-party materials.** Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**Sales, rights and licensing.** FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through <u>publications-sales@fao.org</u>. Requests for commercial use should be submitted via: <u>www.fao.org/contact-us/licence-request</u>. Queries regarding rights and licensing should be submitted to: <u>copyright@fao.org</u>.

# **Contents**

Acl	knowle	edgements	iv
1.	Intro	duction	1
2.	Meth	odological approach	3
3.	Resu	ts	7
	3.1	Results of Koronivia Joint Work on Agriculture workshop actors	7
	3.2	Results of Koronivia Joint Work on Agriculture submissions to United Nations Framework Convention on Climate Change	11
	3.3	Results of Koronivia Joint Work on Agriculture actors in workshops and submissions to United Nations Framework Convention on Climate Change	12
4.	Discu	ssion	14
5.	Conc	usion and identification of further research and information requirements	15
Ref	ference	es	16

# **Acknowledgements**

The work in this report was funded by the Food and Agriculture Organization of the United Nations (FAO) within the scope of the project: Supporting the implementation of the Koronivia Joint Work on Agriculture roadmap (Boosting Koronivia).

# 1. Introduction

In 2017, the 23rd session of the Conference of the Parties (COP23) to the United Nations Framework Convention on Climate Change (UNFCCC) resulted in an historic agreement from Parties on the importance of agriculture to address climate change and food security. For the first time, a decision recognizes the need for agriculture to increase the ability to adapt to the adverse impacts of climate change, foster climate resilience and mitigate greenhouse gas emissions without compromising food production. Since then more research has pointed out the need to intensify the involvement of agriculture in climate mitigation in order to meet the targets of the Paris Agreement in 2050 (IPCC, 2018; Leahy *et al.*, 2020). Wollenberg *et al.* (2016) identify a preliminary global target for reducing emissions from agriculture of ~1 GtCO2 by 2030 to limit warming in 2100 to 2 °C above pre industrial levels. Further estimates exist to evaluate the potential of mitigation of greenhouse gas emissions by agriculture (Smith *et al.*, 2008; Griscom *et al.*, 2017; IPCC, 2018; Roe *et al.*, 2019). Heidecke *et al.* (2021) state that whereas policy makers at global and national levels aim to achieve more ambitious progress in climate change mitigation, pragmatic attention is needed to address future political, socio economic and biophysical barriers to make even more mitigation feasible.

The Koronivia Joint Work on Agriculture (KJWA) was officially launched as an international work program adopted by the Conference of the Parties at its twenty-third session in 2017 (UNFCCC, 2018a) to enhance communication and discussion on agricultural climate change mitigation and adaptation policies. The decision requests:

"The Subsidiary Body of Scientific and Technological Advice and the Subsidiary Body for Implementation to jointly address issues related to agriculture, especially through workshops and expert meetings, including the constituted bodies under the Convention and taking into consideration the vulnerabilities of agriculture to climate change and approaches to addressing food security" (see also (UNFCCC, 2018a, p. 19))

It has to be noted that discussions on agriculture reach back to 2011 when a series of workshops on adaptation in agriculture was decided and implemented from 2013 to 2016 (UNFCCC, 2022a). This opened the way to the KJWA decision in 2017 and to the adoption of its roadmap in May 2018 detailing the implementation until COP26.

In the KJWA process it was agreed to organize the discussion primarily along six in-session workshops and one intersessional workshop. As the workshops address topics specifically in the field of agriculture and climate change where a vast number of actors from private to public, from research to non-governmental organizations NGOs are concerned, the thematic focus and the degree of their involvement are most likely to influence the KJWA process, making actor analysis a relevant step for understanding the process outcomes.

The Food and Agriculture Organization of the United Nations (FAO) already evaluated the content of submissions to the process and found that Parties involved see the possibility to increase

exchange and collaboration among countries as well as to formulate concrete recommendations to the constituted bodies under the Convention (FAO, 2018). Building upon these findings we compile an actor analysis of the KJWA process. We evaluate the contributions of different actors in different regions as well as their role and the topics that actors have focused on during the last years. Actor analysis is a tool widely used in policy analysis for identifying the actors who influence the policy making process and those who are affected by policies (Hermans and Thissen, 2009). Furthermore, it can help to better understand the outcomes of policy making and implementation, i.e. how policies are being shaped and why policies do or do not result in the intended effects on the ground. Hermans and Thissen (2009) identify eighteen actor analysis methods, of which stakeholder analysis and network analysis are the most frequently used ones. Stakeholder analysis aims to identify the individuals or their groups who can affect or be affected by a political decision, and who therefore need either to be involved or whose interests are to be considered in the decision making process (Brugha and Varvasovszky, 2000; Hermans, 2005; Reed et al., 2009). In this regard, the stakeholder analysis identifies the actors that have a stake in a specific policy or decision, determines their interests, and specifies their characteristics such as relative power and legitimacy (Prell et al., 2009). Stakeholder analysis is different from the network analysis method which aims to identify the networks in which a variety of state and non-State actors are organized (Baumgarten and Lahusen, 2006) as well as the relationships among the individual actors within these networks (Newig et al., 2010). In this paper we carry out an actor analysis in order to assess the involvement and representation of actors in the KJWA process rather than to identify the relations between single actors or their groups. We, however, use network analysis tools to display the interconnections between the actors more precisely in this context.

Actor analysis methods have already been used in the context of UNFCCC processes. For example, Schroder and Lovell (2014) looked at actor's involvement at UNFCCC Conference of the Parties from the perspective of the interactions between the formal and informal spaces of climate governance. They analyse non-nation state actors' attendance and the role of official United Nations (UN) Side Events for the formal negotiations.

In the following we describe the approach to and procedure for identifying the actors of relevance to the KJWA. We present the results of actor analysis in various tables summarizing the original database of actors. In the final chapter, we discuss the results, identify further possible analytical steps and research options and point out interesting findings and conclusions. The analyses of the interest and power of the actors involved in KJWA, their participation in broader networks or relationship to other actors are beyond the scope of the study presented here. The actor analysis undertaken here can therefore be considered the first step towards a thorough actor and network analysis which can be completed through further studies.

# 2. Methodological approach

Actors of relevance to the KJWA are manifold as this process addresses both climate mitigation and adaptation, and covers most of the themes related to agriculture. To compile the list of actors in an organized, systematic and comprehensible way, the identification of actors proceeded in the following steps: (i) actors who gave a presentation within one of the KJWA workshops, and (ii) actors who made submissions within the KJWA-related calls for submissions.

In the first step, the agendas of all six KJWA in-session workshops and one intersessional workshop, which are available on the UNFCCC website, were considered and the actors giving the presentations within specific workshop were recorded in the actor list. Specifically, the following eight workshops were browsed (see also Table 1):

- Workshop 1 "Modalities for implementation of the outcomes of the five in-session workshops on issues related to agriculture and other future topics that may arise from this work" on December 2018 in Katowice, Poland (UNFCCC, 2018b);
- Workshop 2 "Methods and approaches for assessing adaptation, adaptation co-benefits and resilience" on 17-18 June 2019 in Bonn, Germany (UNFCCC, 2019a);
- Workshop 3 "Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management" on 18-19 June 2019 in Bonn, Germany (UNFCCC, 2019b);
- Workshop 4 "Improved nutrient use and manure management towards sustainable and resilient agricultural systems" on 3-4 December 2019 in Madrid, Spain (UNFCCC, 2019c);
- Workshop 5 "Workshop on improved livestock management systems, including agropastoral production systems and others" 24-25 November 2020 in virtual session (UNFCCC, 2020a);
- Workshop 6 "Socioeconomic and food security dimensions of climate change in the agricultural sector" December 2020 in virtual session (UNFCCC, 2020b);
- Intersessional workshop, part 1 (workshop 7) on: "a) Sustainable land and water management, including integrated watershed management strategies, to ensure food security." 16 June 2021 in virtual session (UNFCCC, 2021a);
- Intersessional workshop, part 2 (workshop 8) on: "b) Strategies and modalities to scale up implementation of best practices, innovations and technologies that increase resilience and sustainable production in agricultural systems according to national circumstances" 12-30 October 2021 in Glasgow, United Kingdom (UK) and virtual session (UNFCCC, 2021b).

The list of actors contains multiple entries in the case where they were invited to give presentations at different workshops.

Table 1: summary of submissions and workshops in Koronivia Joint Work on Agriculture

	Session name / mandate	Submission description	Title of Event - Workshop	Date	Report / Document
	Sesssion of the Subsidiary Bodies (SB) 53	Issue: Koronivia road map under the Koronivia Joint Work on Agriculture (decision 4/CP.23). Deadline: 28/09/2020 Title: Submissions from Parties and observers on future topics not listed in decision 4/CP.23 and views on the	Koronivia intersessional workshop - Part 2: Strategies and modalities to scale up implementation of best practices, innovations and technologies that increase resilience and sustainable production in agricultural systems according to national circumstances.	12-30 October 2021 Glasgow, UK / Virtual session	FCCC/SB/2021/3/Add.1
	Mandate: FCCC/SBI/2018/9, paragraph 43 and FCCC/SBSTA/2018/4, paragraph 64	progress of the Koronivia joint work on agriculture in order to report to the Conference of the Parties as per decision 4/CP.23, paragraph 4	Koronivia intersessional workshop part 1: Sustainable land and water management, including integrated watershed management strategies, to ensure food security	16 June 2021 Virtual session	FCCC/SB/2021/3
	SB 52	Issue: Koronivia road map under the Koronivia Joint Work on Agriculture (decision 4/CP.23). Deadline: 20/04/2020	Workshop on socioeconomic and food security dimensions of climate change in the agricultural sector.  Click workshop website.	December 2020 Virtual session	- <u>FCCC/SB/2021/2</u>
	Mandate: FCCC/SBI/2018/9, paragraph 43 and FCCC/SBSTA/2018/4, paragraph 64	Title: Submissions from Parties and observers on: Topic 2(e) – Improved livestock management systems, including agropastoral production systems and others, and Topic 2(f) – Socioeconomic and food security dimensions of climate change in the agricultural sector	Workshop on improved livestock management systems, including agropastoral production systems and others. Click workshop website.	24-25 November 2020 Virtual session	FCCC/SB/2021/1
K	SB 51	Issue: Koronivia road map under the Koronivia Joint Work on Agriculture (decision 4/CP.23) Deadline: 30/09/2019	In-session workshop on improved nutrient use and manure	3-4 December 2019	
o r o	Mandate: FCCC/SBI/2018/9, paragraph 43 and FCCC/SBSTA/2018/4, paragraph 64	Title: Submissions from Parties and observers on topic 2(d) – Improved nutrient use and manure management towards sustainable and resilient agricultural systems	management towards sustainable and resilient agricultural systems.  Click workshop website.	Madrid, Spain	FCCC/SB/2020/1
n i v i	SB 50	Issue: Koronivia road map under the Koronivia Joint Work on Agriculture (decision 4/CP.23). Deadline: 06/05/2019 Title: Submissions from Parties and observers on: Topic 2(b) – Methods and	In-session workshop on improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management. Click workshop website.	18-19 June 2019 Bonn, Germany	FCCC/SB/2019/2
a	Mandate: FCCC/SBI/2018/9, paragraph 43 and FCCC/SBSTA/2018/4, paragraph 64	approaches for assessing adaptation, adaptation co-benefits and resilience, and Topic 2(c) – Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management	In-session workshop on methods and approaches for assessing adaptation, adaptation co-benefits and resilience. Click workshop website.	Bonn, Germany	FCCC/SB/2019/1
	SB49	Issue: Koronivia road map under the Koronivia Joint Work on Agriculture		December 2018	
	Mandate: FCCC/SBI/2018/9, paragraph 43 and FCCC/SBSTA/2018/4, paragraph 64	(decision 4/CP.23). Deadline: 22/10/2018 Title: Views from Parties and observers on topic 2(a) – Modalities for implementation of the outcomes of the five in-session workshops on issues related to agriculture and other future topics that may arise from this work	In-session workshop on modalities for implementation of the outcomes of the five in-session workshops on issues related to agriculture and other future topics that may arise from this work. Click workshop website.	Katowice, Poland	FCCC/SB/2019/INF.1
	SB 48	Issue: Koronivia Joint Work on agriculture			
	Deadline: 31/03/2018  Title: Views from Parties and observers to submit their views on elements to be included in the work of the SBSTA and the SBI to jointly address issues related to agriculture, including through workshops and expert meetings, working with constituted bodies under the Convention and taking into consideration the vulnerabilities of agriculture to climate change and approaches to addressing food security		First call, no workshop		

Source: own compilation.

In the next step, the Parties, admitted organisations and non-admitted entities were considered who made submissions within the six calls for submissions related to the KJWA (UNFCCC, 2022b). Specifically, the submissions to the following calls were browsed:

- Views from Parties and observers to submit their views on elements to be included in the work
  of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body
  for Implementation (SBI) to jointly address issues related to agriculture, including through
  workshops and expert meetings, working with constituted bodies under the Convention and
  taking into consideration the vulnerabilities of agriculture to climate change and approaches to
  addressing food security Forty-eighth Session of the Subsidiary Bodies (SB 48);
- Views from Parties and observers on topic 2(a) Modalities for implementation of the outcomes of the five in-session workshops on issues related to agriculture and other future topics that may arise from this work (SB 49);
- Submissions from Parties and observers on: Topic 2(b) Methods and approaches for assessing adaptation, adaptation co-benefits and resilience, and Topic 2(c) – Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management (SB 50);
- Submissions from Parties and observers on topic 2(d) Improved nutrient use and manure management towards sustainable and resilient agricultural systems (SB 51);
- Submissions from Parties and observers on: Topic 2(e) Improved livestock management systems, including agropastoral production systems and others, and Topic 2(f) Socioeconomic and food security dimensions of climate change in the agricultural sector (SB 52);
- Submissions from the Parties and observers on future topics not listed in decision 4/CP.23 and views on the progress of the Koronivia joint work on agriculture in order to report to the Conference of the Parties as per Decision 4/CP.23, paragraph 4 (SB 53).

Similar to the step one, the list of actors created in step two contains multiple entries of actors in case these actors made submissions in response to several KJWA related calls.

For each actor recorded in the two lists of actors we added information on name and acronym of organisation, website, and information about the contact person. At the end the two lists were merged into one actor database and analysed commonly. All actors (including their multiple entries) were characterised using seven analytical categories and 25 sub categories (see Table 2).

Table 2: analytical categories and sub categories

Category	Sub categories (underlined) and description
Location	Country (1) and continent (2) where an actor is located. For international organisations, the location of their headquarters was specified
Geographical scope	This subcategory aims to specify if an actor is active rather on a <u>national</u> (3) or <u>regional (4)</u> or <u>international (5)</u> level
Sector	Within this category, the actors are classified as <u>public</u> (6), <u>private</u> (7) or <u>non-profit</u> (8). Actors acting within the public sector provide public services, such as education, public (state-owned) organisations, for example, state agencies implementing development projects. Private actors are organisations owned by private individuals or groups, mainly profit-oriented enterprises. Non-profit actors are non-governmental civic organisations, often established voluntarily.
Participation	This category specifies a KJWA workshop in which actors presented or a call to which actors submitted their views
Field of action	This category specifies whether an actor is more focused on climate <u>adaptation</u> (9) or <u>mitigation</u> (10) issues or both (M&A) (11), this is being determined in relation to a specific KJWA topic upon the content of a presentation in a workshop or a submission
Type of contribution	Here the type of actor's activity to the KJWA is specified, namely <u>constituted</u> bodies (12), <u>funds and financial entities</u> (13), <u>Parties</u> (14), <u>non-governmental organizations</u> (NGO) (15), <u>intergovernmental Organization</u> (IGO) (16), <u>UN</u> (17), <u>for-profit company</u> (18) and <u>non-admitted entity (NAE)</u> (19)
KJWA topics	Based on the thematic focus of the six KJWA in-session workshops planned in the Koronivia road map, as contained in annex I of FCCC/SBI/2018/9 and FCCC/SBSTA/2018/4, six KJWA topics were identified: soil (20), livestock (21), nutrient management (22), water management (23), food security (24), socio economic impact (25)

Source: own compilation.

The different entries of actors and submissions in the database indicate the number of actors' presentations and topics within the KJWA. This database is therefore used to assess the engagement of actors in the KJWA process.

The analysis identified specifically (i) the participation intensity of actors related to the KJWA topics per continent and country; (ii) the participation intensity of actors related to the KJWA topics per actor characteristics (geographical scope, sector, type of contribution), and (iii) the participation intensity of actors with different characteristics (geographical scope, sector, type of contribution) per continent and country (see Section 3).

# 3. Results

In this section, we present the results of the two steps of creating a list of actors participating in the KJWA, and the results of its analysis.

# 3.1 Results of Koronivia Joint Work on Agriculture workshop actors

In step one 169 presentations by actors could be identified that contributed specifically to one of the workshops explained in Section 2.

Table 3, table 4 and table 5 present a summary of the results by type of actors, Koronivia topics and by world region representation. The actors are further divided into international actors, regional and national actors.

Table 3: number of presentations within the KJWA workshops by Koronivia topics and field of action

Field of action		Koronivia topics								
	Soil	Livestock	Nutrient management	Water management	Food security	Socio economic impact				
Adaptation	20	22	14	44	40	40				
M&A	37	23	26	34	40	43				
Mitigation	7	18	8	5	11	17				
Total	64	63	48	83	91	100				

Source: summary of own results based on the list of actors submitted with the report.

Table 3 demonstrates that in the KJWA workshops most of Koronivia topics were considered by participating actors either from the adaptation or the mitigation & adaptation (M&A) perspective. Few presentations considered Koronivia topics solely from the mitigation perspective and within the Koronivia topic "Livestock" we observe almost equal distribution among the three fields of action. Within one presentation more than one Koronivia topic was often mentioned thus the sum of topics indicated in Table 3 is far larger than the total number of presentations given within all KJWA workshops.

Table 4: number of presentations within the KJWA workshops by Koronivia topics and continent

Continent			Kor	onivia topics		
	Soil	Livestock	Nutrient management	Water management	Food security	Socio economic impact
Africa	6	8	6	10	14	11
Asia	8	6	9	12	9	11
Australia and Oceania	1	3	1	2	1	2
Europe	34	26	19	41	43	44
Latin America and the Caribbean	2	7	3	3	3	6
North America	13	12	10	14	20	22
Unspecified		1		1	1	4
Total	64	63	48	83	91	100

Source: summary of own results based on the list of actors submitted with the report.

Table 4 shows that most topics in the presentations within the KJWA workshops have been held by actors affiliated to organisations based in Europe, followed by North America and then Africa and Asia. These actors addressed all topics but with a slight preference for food security and socio economic impact except for actors from Asia which rather focused on water management and socio economic impact. All topics are quite evenly distributed among different regions. It has to be noted, however, that due to the fact that table 4 considers multiple entries and the actual participation number can be different.

Table 5 shows that on behalf of Europe and North America the presentations within the KJWA-workshops were made mostly by international institutions and here especially by Non-Parties stakeholders. From Latin America and the Caribbean, there were mainly national actors participating in the KJWA workshops.

Table 5: number of presentations within the KJWA workshops by type of actor, continent, and geographical scope

	Type of actor according to the UNFCCC classification system						
Continent Geographical scope	Constituted bodies	Funds and financial entities	Non-Parties stakeholders	Parties	Total		
Africa			8	11	19		
International			7	2	9		
National			1	7	8		
Regional				2	2		
Asia		6	7	6	19		
International		6	1		7		
National			6	5	11		
Regional				1	1		
Australia and Oceania			3	2	5		
International			2		2		
National			1	2	3		
Europe	15		45	17	77		
International	15		34	3	52		
National			11	7	18		
Regional				7	7		
Latin America and the Caribbean			5	7	12		
International			2		2		
National			3	6	9		
Regional				1	1		
North America		12	18	2	32		
International		12	15		27		
National			3	2	5		
Unspecified	5				5		
International	5				5		
Total	20	18	86	45	169		

Source: summary of own results.

Figure 1 provides a graphical overview of all actors that gave presentations at the eight Koronivia workshops by eight UNFCCC actor categories (constituted bodies, funds and financial entities, Parties, non-governmental organization [NGO], intergovernmental organization [IGO], UN, for-profit company and non-admitted entity [NAE]). Each coloured circle indicates one actor presenting at a workshop, each light blue coloured box indicates a Koronivia workshop, and the number of "links" (lines connecting circles and boxes) refers to the number of workshops one actor presented at. The bigger the circle, the more presentations have been held by one particular actor at different workshops. The network graph shows that almost three-quarters (71) of the actors only presented at one of the workshops while 25 actors presented at least two different workshops. Actors that

presented multiple times (more than two workshops) are mostly (i) non-governmental organization constituencies representing clustered interests of a group of actors (environmental nongovernmental organizations (ENGO) [6], children and youth non-governmental organizations (YOUNG) [5], research and independent non-governmental organizations (RINGO) [4], Farmers Constituency (Farmers) [4], women and gender constituency (WGC) [3] and business and industry non-governmental organizations (BINGO) [3]), (ii) Funds and Financial Entities (Global Environmental Facility (GEF) [6], Adaptation Fund (AF) [6], Green Climate Fund (GCF) [5], Least Developed Countries Group (LDCs) [3]), or (iii) belong to the UN system (World Bank (WB) [7], FAO [6] and Local Communities and Indigenous Peoples Platform Facilitative Working Group (LCIPP FWG) [3]). In addition, one non-admitted entity Indian National Academy of Agriculture Research Management (NAARM) as well as two Parties (European Union (EU) and Uruguayan Ministry of Livestock, Agriculture and Fisheries (MGAP)) and constituted bodies (Adaptation Committee (AC) and Climate Technology Centre and Network (CTCN)) presented at three or more workshops. Workshops 6 and 7 (food security and socio economic impact, and intersessional workshop: part 1) were the ones with the highest overlap of actors presenting multiple times. The topics of these workshops have been identified above as main topics addressed by actors during the KJWA workshops (see Table 4).

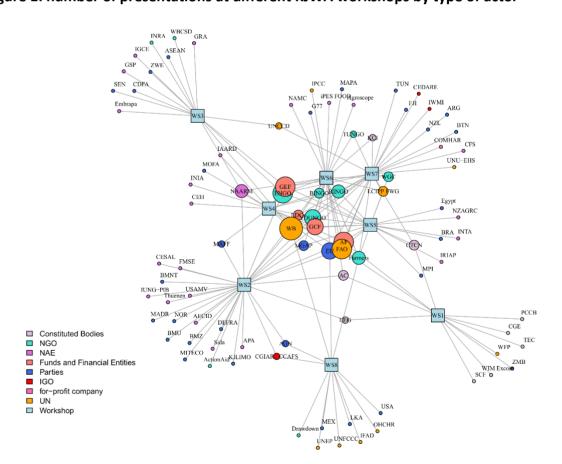


Figure 1: number of presentations at different KJWA workshops by type of actor

Source: summary of own results. Graph was created using the statistical software R and the R-package "igraph".

# 3.2 Results of Koronivia Joint Work on Agriculture submissions to United Nations Framework Convention on Climate Change

In step two all submissions of views to UNFCCC as explained in Section 2 have been evaluated. Table 6 shows the number of submissions within world regions by type of organisation. We see that Parties and non-admitted entities are active in all world regions. In all world regions, except for Europe and North America, Parties make up for the highest participation intensity. In Europe, non-admitted entities are the most active, and in North America the non-governmental organisations. The participation intensity of the funding sector is quite low in all world regions.

Table 6: total of submissions to the subsidiary bodies presented by world region, according the UNFCCC classification system

World region	N	on-Parties	Parties	Total		
	UN	NGO	IGO	NAE		general
Africa	1	5	2	10	19	37
Asia		1		9	26	36
Australia and Oceania				3	9	12
Europe	12	44	7	50	16	129
Latin America and the Caribbean		1	8	7	20	36
North America	6	34		2	5	47
Unspecified		1			1	2
Total	19	86	17	81	96	299

UN: United Nations system; NGO: admitted non-governmental organizations, IGO: admitted intergovernmental organizations, NAE: non-admitted entities. Source: summary of own results

Source: summary of own results.

In Table 7 we summarize the submissions in response to the six KJWA-related calls for submissions as shown in Section 2 by Koronivia topic and world region. Here, several topics can be addressed within one submission.

Table 7: KJWA submissions to the subsidiary bodies by Koronivia topics and world region

World region	Koronivia topics							
	Soil	Livestock	Nutrient management	Water management	Food security	Socio economic impact	general	
Africa	25	21	11	16	35	23	131	
Asia	26	18	15	21	29	18	127	
Australia and Oceania	7	7	4	5	6	5	34	
Europe	102	62	55	59	108	63	449	
Latin America and the Caribbean	21	16	8	11	30	21	107	
North America	26	24	18	15	33	33	149	
Unspecified	2	1	1		1	1	6	
Total	209	149	112	127	242	164	1 003	

Source: summary of own results.

Table 7 shows that all topics were covered by all regions in the world. Especially the topics food security and soil were prominently addressed. Actors located in Europe addressed the six Koronivia topics 449 times in their submissions. Similar to the list of actors participating in KJWA workshops, such a large number is explained by the fact that many international organisations have their headquarters in Europe.

# 3.3 Results of Koronivia Joint Work on Agriculture actors in workshops and submissions to United Nations Framework Convention on Climate Change

In the third analytical step we combine the list of actors participating in KJWA workshops and the list of actors who provided submissions in response to the KJWA-related calls for submissions. Table 8 summarizes all entries showing the total of 468 counts, which include multiple entries of actors that were involved in several workshops or made several submissions. We see that all world regions are represented in the process and that the majority of presentations and submissions were made mainly by non-profit and public actors.

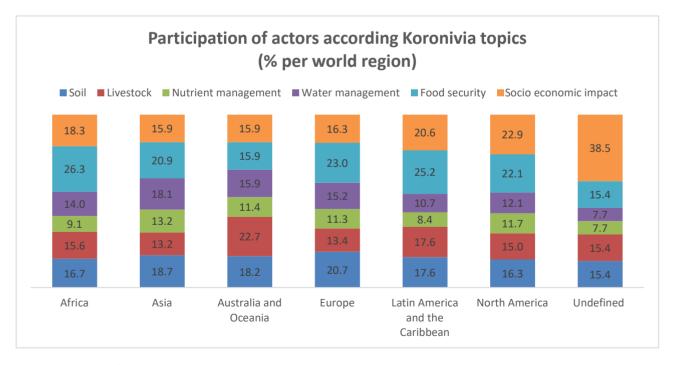
Table 8: number of entries for participation in workshops and submissions by type of actor and world region

World region	Type of actor	Type of actor			
	Non-profit	Private	Public		
Africa	14		42	56	
Asia	2		53	55	
Australia and Oceania	2	1	14	17	
Europe	71	6	129	206	
Latin America and the Caribbean	5	1	42	48	
North America	38	2	39	79	
Unspecified	1		6	7	
Total	133	10	325	468	

Source: summary of own results.

Figure 2 on the other hand focuses on the different Koronivia topics addressed in the presentations within the KJWA workshops and submissions by world regions. For the variety of topics, a quite even distribution can be stated for all topics in all world regions. A slight emphasis can be seen for the topic food security from African, Asian and European countries, for the topic livestock in Australia and Oceania regions, and the topic soil in North America.

Figure 2: participation of actors by Koronivia topic (% per world region)



Source: summary of own results.

# 4. Discussion

## <u>Discussion point 1: influence of representation by UNFCCC Secretariat</u>

The agenda for the workshops is set up by the UNFCCC Secretariat. The UNFCCC Secretariat aimed at a diplomatic and balanced involvement of actors within the workshops which are based on ideas suggested in the submissions by the actors mentioned. Also, the aim to have highly relevant and up to date workshop inputs by the presenters might have been pursued. With our analysis we demonstrate that the UNFCCC Secretariat has managed to quite evenly involve many actors from different parts of the world and from different institutional settings. Considering that no solid documentation on the process of accomplishing a balanced workshop design and agenda exists, the analysis presented here serves as a transparent record of discussion on agriculture within climate negotiations.

## Discussion point 2: recommendations for data collection management

The analysis in this paper is based on the analysis of documents provided on the UNFCCC websites. On this basis, we defined the actors according to categories, regions and topics. For future documentation processes it is recommended to gather more standard and consistent information about the actors involved in the process, especially regarding their role, their interest and their expertise in topics related to agriculture and climate change. Also, a list of participants would be helpful for a more transparent picture.

### Discussion point 3: actors and submissions driving the KJWA process

As a third point of the discussion we draw first conclusions about the actors and submissions which seem to have primarily driven the process during the last years. We see for example that actors based in Europe are highly represented, especially due to many international organisations having their headquarters in Europe (FAO, International Fund for Agricultural Development (IFAD), etc.). When analysing the participation of actors in the Koronivia process by world region, it is recommended to differentiate between the location of the actor's headquarters and its actual area of influence. The latter allows to more accurately identify the regional representation of interests. Furthermore, it might also facilitate logistics decisions on the location of future meetings or events.

# 5. Conclusion and identification of further research and information requirements

As the KJWA addresses both climate adaptation and mitigation and considers mostly all research aspects of agricultural production, the actors involved in these topics worldwide are manifold. In order to narrow down the analysis and find a starting point, we focused explicitly on the UNFCCC process, and did not consider further websites, processes or research networks beyond this. For this reason, the database of actors should not be considered complete and presents an overview of relevant actors related to the above-mentioned processes. The actors involved in the KJWA workshops show good representativeness among fields of action, geographical scope and continents, as well as by the type of actors, especially considering the multitude of actors involved. If agriculture were to be further discussed under the UNFCCC beyond COP27 (UNFCCC, 2021c), it is recommended to proceed with a balanced representation of actors and topics but to more systematically report on the choice of actors involved. Further research should focus on actors concerned and involved beyond the official UNFCCC process. If data availability improves in the future, a more detailed network analysis would allow to reveal interconnections between the actors as well as their influence on the process.

# References

**Baumgarten, B & Lahusen, C**. 2006. Politiknetzwerke – Vorteile und Grundzüge einer qualitativen Analysestrategie. In B. Hollstein & S. Florian, eds. *Qualitative Netzwerkanalyse*. pp. 177-187. Wiesbaden, VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-90074-2 7"

**Brugha, R. & Varvasovszky, Z.** 2000. Stakeholder analysis: a review. *Health Policy and Planning,* 15(3): 338-345. https://doi.org/10.1093/heapol/15.3.338

**FAO.** 2018. Koronivia Joint Work on Agriculture: Analysis of Submissions. Environment and Natural Resources Management Series Working Paper 71. Rome, FAO. https://www.fao.org/3/CA2586EN/ca2586en.pdf

Griscom, B.W., Adams, J., Ellis, P.W., Houghton, R.A., Lomax, G., Miteva, D.A., Schlesinger W.H., Shoch, D., Siikamäki, D.J., Smith, P., Woodbury, P., Zganjar, C., Blackman, A., Campari, J., Conant, R.T., Delgado, C., Elias, P., Gopalakrishna, T., Hamsik, M.R., Herrero, M., Kiesecker, J., Landis, E., Laestadius, L., Leavitt, S.M., Minnemeyer, S., Polasky, S., Potapov, P., Putz, F.E., Sanderman, J., Silvius, M., Wollenberg, E. & Fargione, J. 2017. Nature Climate Solutions. *Proceedings of the National Academy of Sciences*, 114(44): 11645-11650. https://doi.org/10.1073/pnas.1710465114

Griscom, B.W., Busch, J., Cook-Patton, S.C., Ellis, P.W., Funk, J., Leavitt, S.M., Lomax, G., Turner, W.R., Chapman, M., Engelmann, J., Gurwick, N.P., Landis, E., Lawrence, D., Malhi, Y., Schindler Murray, L., Navarrete, D., Roe, S., Scull, S., Smith, P., Streck, C., Walker, W.S. & Worthington, T. Worthington T. 2020. National mitigation potential from natural climate solutions in the tropics. *Philos Trans R Soc Lond B Biol Sci*, 375(1794): 20190126. https://doi.org/10.1098/rstb.2019.0126

**Schroeder, H. & Lovell, H.** 2012. The role of non-nation-state actors and side events in the international climate negotiations. *Climate Policy, 12:1, 23-37.* 12(1): 23-27. https://doi.org/10.1080/14693062.2011.579328

**Hermans, L.M.** 2005. *Actor analysis for water resources management: putting the promise into practice*. Delft, the Netherlands, Eburon Publishers. http://resolver.tudelft.nl/uuid:e5980ebc-4fbe-4db7-8f91-d7e1134a8726

**Hermans, L.M. & Thissen, W.A.H.** 2009. Actor analysis methods and their use for public policy analysts. *European Journal of Operational Research*, 196(2): 808-818. https://doi.org/10.1016/j.ejor.2008.03.040 **IPCC**. 2018. Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Masson-Delmotte, V., Zhai, P., Pörtner, H.-O., Roberts, D., Skea, J., Shukla, P.R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J.B.R., Chen, Y., Zhou, X., Gomis, M.I., Lonnoy, E., Maycock, T., Tignor, M. & Waterfield, T., eds. Geneva, IPCC.

https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\_Full\_Report\_High\_Res.pdf

IPCC. 2019. Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes interrestrial ecosystems. Shukla, P.R., Skea, J., Calvo Buendia, E., Masson-Delmotte, V., Pörtner, H.-O., Roberts, D.C., Zhai, P., Slade, R., Connors, S., van Diemen, R., Ferrat, M., Haughey, E., Luz, S., Neogi, S., Pathak, M., Petzold, J., Portugal Pereira, J., Vyas, P., Huntley, E., Kissick, K., Belkacemi, M. & Malley, J., eds. Geneva, IPCC. https://www.ipcc.ch/srccl/

**Newig, J., Günther, D. & Pahl-Wostl, C.** 2010. Synapses in the Network: Learning in Governance Networks in the Context of Environmental Management. *Ecology and Society*, 15(4): 24. https://www.ecologyandsociety.org/vol15/iss4/art24/

**Prell, C., Hubacek, K. & Reed, M.** 2009. Stakeholder Analysis and Social Network Analysis in Natural Resource Management. *Society & Natural Resources*, 22(6): 501-518. https://doi.org/10.1080/08941920802199202

Reed, M.S., Graves, A., Dandy, N., Posthumus, H., Hubacek, K., Morris, J., Prell, C., Quinn, C.H. & Stringer, L.C. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90, 90(5): 1933-1949. https://doi.org/10.1016/j.jenvman.2009.01.001

Roe, S., Streck, C., Obersteiner, M., Frank, S., Griscom, B., Drouet, L., Fricko, O., Gusti, M., Harris, N., Hasegawa, T., Hausfather, Z., Havlík, P., House, J., Nabuurs, G.-J., Popp, A., Sanz-Sanchez, M.-J., Sanderman, J., Smith, P., Stehfest, E. & Lawrence, D. 2019. Contribution of the land sector to a 1.5 °C world. *Nature Climate Change*, 9: 817-828. https://doi.org/10.1038/s41558-019-0591-9

Smith, P., Martino, D., Cai, Z., Gwary, D., Janzen, H., Kumar, P., McCarl, B., Ogle, S., O'Mara, F., Rice, C., Scholes, B., Sirotenko, O., Howden, M., McAllister, T., Pan, G., Romanenkov, V., Schneider, U., Towprayoon, S., Wattenbach, M. & Smith, J. 2008. Greenhouse gas mitigation in agriculture. *Philos Trans R Soc Lond B Biol Sci*, 363(1492): 789-813. https://doi.org/10.1098/rstb.2007.2184

**UNFCCC.** 2015. *Paris agreement.* United Nations. https://unfccc.int/sites/default/files/english\_paris\_agreement.pdf

**UNFCCC.** 2018a. Report of the Conference of the Parties on its twenty-third session, held in Bonn from 6 to 18 November 2017. Abbendum. Part two: Action taken by the Conference of the Parties at its twenty-third session. FCCC/CP/2017/11/Add.1. Bonn, UNFCCC. https://unfccc.int/sites/default/files/resource/docs/2017/cop23/eng/11a01.pdf

**UNFCCC.** 2018b. Modalities for implementation of the outcomes of the five in-session workshops on issues related to agriculture and other future topics that may arise from this work. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022.

https://unfccc.int/event/modalities-for-implementation-of-the-outcomes-of-the-five-in-session-workshops-on-issues-related-to

**UNFCCC**. 2019a. Methods and approaches for assessing adaptation, adaptation co-benefits and resilience. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/methods-and-approaches-for-assessing-adaptation-adaptation-co-benefits-and-resilience

**UNFCCC**. 2019b. Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/improved-soil-carbon-soil-health-and-soil-fertility-under-grassland-and-cropland-as-well-as

**UNFCCC**. 2019c. Improved nutrient use and manure management towards sustainable and resilient agricultural systems. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/improved-nutrient-use-and-manure-management-towards-sustainable-and-resilient-agricultural-systems

**UNFCCC**. 2020a. Koronivia workshop on improved livestock management systems. In: United Nations Climate Change. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/koronivia-workshop-on-improved-livestock-management-systems

**UNFCCC**. 2020b. Koronivia workshop on socioeconomic and food security dimensions of climate change in the agricultural sector. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/koronivia-workshop-on-socioeconomic-and-food-security-dimensions-of-climate-change-in-the

**UNFCCC**. 2021a. Koronivia intersessional workshop - Part 1. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/koronivia-intersessional-workshop-part-1

**UNFCCC**. 2021b. Koronivia intersessional workshop - Part 2. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/event/koronivia-intersessional-workshop-part-2

**UNFCCC**. 2021c. *Koronivia joint work on agriculture: Draft conclusions proposed by the Chairs*. FCCC/SB/2021/L.1. Bonn, UNFCCC. https://unfccc.int/sites/default/files/resource/sb2021 L01 E.pdf

**UNFCCC**. 2022a. Agriculture workshops and documents. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://unfccc.int/topics/land-use/workstreams/agriculture/agriculture-workshops-and-documents

**UNFCCC**. 2022b. Submission Portal. In: *United Nations Climate Change*. Bonn, UNFCCC. Cited 25 February 2022. https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx

Wollenberg, E., Richards, M., Smith, P., Havlík, P., Obersteiner, M., Tubiello, F.N., Herold, M., Gerber, P., Carter, S., Reisinger, A., van Vuuren, D.P., Dickie, A., Neufeldt, H., Sander, B.O., Wassmann, R., Sommer, R., Amonette, J.E., Falcucci, A., Herrero, M., Opio, C., Roman-Cuesta, R.M., Stehfest, E., Westhoek, H., Ortiz-Monasterio, I., Sapkota, T., Rufino, M.C., Thornton, P.K., Verchot, L., West, P.C., Soussana, J.-F., Baedeker, T., Sadler, M., Vermeulen, S. & Campbell, B.M. 2016. Reducing emissions from agriculture to meet the 2 °C target. *Glob Change Biol*, 22: 3859-3864. https://doi.org/10.1111/gcb.13340



# **Contact information**

Office of Climate Change, Biodiversity and Environment

OCB-Director@fao.org www.fao.org/koronivia/en/ Twitter @FAOClimate

Johann Heinrich von Thünen Institute - Coordination Unit Climate Protection Federal Research Institute for Rural Areas, Forestry and Fisheries

Bundesallee 49

D-38116 Braunschweig Tel.: +49 531 596 1111 Fax: +49 531 596 1099 kb@thuenen.de

www.thuenen.de/en/infrastructure/coordination-units-climate-and-soil/coordination-unit-climate-protection/

Twitter @ThuenenClimSoil

Thanks to the financial support of



Food and Agriculture Organization of the United Nations

Rome, Italy