Supplementary Materials

Supplementary Materials 1 (SM1)

The systematic literature review according to the ROSES pro forma principals

We conducted a systematic literature review in line with both, the PSASAR method [1] and the ROSES pro forma criteria (RepOrting standards for Systematic Evidence Syntheses) [2], which constitute the most updated guidelines for conducting and presenting environmental systematic literature reviews.

Our review target local responses to climate change impacts by IPLC and associated with their ILK. Specifically, with this review we aim at answering the following questions: What is the geographical extend of research on local responses to climate change impacts? What are frequently reported local response strategies? How do responses differ across climates, livelihoods and regions?

An overview of the framework and search process of this review is summarized in Table SM1 and Table SM2.

Table SM1: The PICo (population, interest, and context) framework for this review.

Population (P)	**Interest (I)**	**Context (Co)**
Indigenous Peoples and local communities with natural-resource-based livelihoods, such as small-holding agriculture, pastoralism, small-scale fishing, aquaculture or hunting/ gathering	Documented human ground-based adaptation responses to climate change	First-hand case studies published between 2015 and 2019 on local adaptation responses to climate change across the globe

Table SM2: Outline of the literature review according to the STARLITE principal.

Sampling strategy	Selective: Studies relevant to local adaptation to climate change based on ILK
Type of study	Partially reported: Any first-hand qualitative, quantitative or mixed method study
Approaches	Electronic subject search only
Range of years	2015-2019
Limits	English
Inclusion and exclusion	Inclusion: case studies reporting implemented responses to climate change by IPLC
Terms used	"climate change" AND ("indigenous knowledge" OR "local knowledge" OR "traditional knowledge" OR "traditional ecological knowledge") AND ("adapt*" OR "coping" OR "cope") appearing in titles, abstracts and keywords
Electronic sources	Scopus®, Web of Science®

Step 1 – Protocol development

We developed a protocol including the research goal, the search strategy, the coding guidelines and a glossary. The protocol guided article selection and coding, ensuring the application of homogenized inclusion and exclusion criteria among different coders. After receiving a personal training, all coders conducted a test coding before starting the systematic review. During the search and coding process, the protocol was regularly updated and new versions shared among co-authors and coders. The coding process of all supporting coders was double checked by the main author.

Step 2 - Search

We used two standard web-based search engines for scientific peer-reviewed publications in English, the Web of Science® (WOS) (http://science.thomsonreuters.com) and Scopus® (https://www.scopus.com/). The search was conducted at the beginning of February 2020. We selected these databases and their search engines because of their large size (+70 million articles), multidisciplinary scope, and friendly search tools (18 and 79 field codes/limiters permitted,

respectively), which allowed for a targeted, precise and replicable search [3] and minimized retrieval bias [4].

Information on the online search, including search string, online database, date and location of the conducted search and results are summarized in Table SM3.

Table SM3: Details on the online search.

	Scopus	**Web of Science**
Search string	TITLE-ABS-KEY(("climate change") AND ("indigenous knowledge" OR "local knowledge" OR "traditional knowledge" OR "traditional ecological knowledge") AND (“adapt*” OR “coping” OR “cope”))	TS=(("climate change") AND ("indigenous knowledge" OR "local knowledge" OR "traditional knowledge" OR "traditional ecological knowledge") AND (“adapt*” OR “coping” OR “cope”))
Date, Location	2020/02/03, Universitat Autònoma de Barcelona, Spain	2020/02/03, Universitat Autònoma de Barcelona, Spain
Nr of publications (all years)	681	709
	Total of both databases (without duplicates): 931	
Nr. of publications (2015-2019)	394	445
	Total of both databases (without duplicates): 580	

The search resulted in 931 records from both databases after the removal of duplicates and without any temporal limitations (Table SM3). The number of records was low before 2010 (< 30 records/year), but strongly increased after, surpassing 90 records/year in 2015. To reduce the number of records to a manageable amount while maintaining the depth of our review in a research field of high maturity [5], we followed the suggestions by Okoli [6] to limit the included timeline. We thus limited our search to the period after 2014. The decision was based in two reasons. First, in 2014, the IPCC report - a compilation of current climate change research - stated the need for more efforts towards the integration of ILK with existing practices for a higher effectiveness of adaptation [7],

thereby promoting a new research focus towards local adaptation to climate change by IPLC. Second, in 2015, the number of annual records surpassed 90 records/year, a promising number for solid data analysis.

Limitations:

We acknowledge that our review is not comprehensive as i) we cover a short timeframe, ii) we did not conduct manual searches to identify additional sources of evidence, in English or any other language [8], and iii) we did not seek advice from bibliometric experts to reduce any inherent publication bias [4]. Furthermore, we are aware that our keyword string does not capture all relevant publications on local responses to climate change in subsistence-oriented IPLC and could be improved by specifically including different livelihoods (e.g., 'small-scale fishing') in the search keywords, and in so doing potentially reduce the above-mentioned retrieval and publication bias [4]. However, we suggest that this would have resulted in an inoperable amount of publications with an undesirable lower representation of traditional and indigenous strategies and a higher proportion of externally-driven measures, two consequences that contradict our interest. The bias in the quantity of available publications on different livelihoods might have resulted in an underdevelopment of our classification system for fishing and hunting / gathering livelihoods.

Step 3 - Appraisal (inclusion/exclusion criteria and quality appraisal)

I. Inclusions/exclusion criteria:

Articles were selected if they reported first-hand data on implemented and currently practiced responses to climate change and variability (including coping, adaptation, transformation and capacity building) by IPLC. Articles were excluded if they (1) did not report any relationship between adaptation and climate change, i.e., adaptation to non-climatic drivers, (2) referred to a community whose main livelihoods did not depend on natural resources, (3) described only potential but not actual and realized adaptation or coping strategies, (4) provided only assessments of vulnerability, resilience or adaptive capacity but no response actions, (5) discussed theoretical frameworks, concepts or modelling exercises, or (6) were secondary studies such as reviews (see Table SM4 for the complete list of inclusion / exclusion criteria).

Table SM4: Description of the inclusion and exclusion criteria.

INCLUDED **Topic:** *Local responses to climate change in Indigenous Peoples and local communities:* The title and/or abstract of the study explicitly indicates that currently practiced adaptive strategies are reported/mentioned/assessed/discussed in the paper. Local climate change adaptation is among the research objectives of the paper and the full text reports results and a subsequent discussion on the topic. The local responses to climate change must be set in place. **Timeline:** Studies published between 2015 and 2019 **Population:** Indigenous Peoples and local communities – mainly rural - with natural resource dependent livelihood such as smallholding agriculture, small-scale fishing, aquaculture and livestock rearing, hunting-gathering. **Data:** Primary studies based on first-hand empirical data. **Publication type:** Peer-review articles and book chapters with a thorough and comprehensive description of the data collection procedure.
EXCLUDED **Topic:** *Biological adaptation:* Any study focusing on adaptation in the biological system (flora, fauna, fungi and other microorganisms). *Adaptation to non-climatic drivers:* Studies on adaptation to non-climatic drivers only, e.g., deforestation, technology transfer. *Natural climate variability and extreme events:*

Studies on responses to long-existing climate variability and extreme events if no change in such variability or extreme events is mentioned in relation to climate change.

Past adaptation to natural (non-anthropogenic) climate change:

All articles about past adaptation to non-anthropogenic but natural climate change and climate variability (e.g., during the Pleistocene/Holocene transition)

Future or potential adaptation:

Studies on unrealized adaptation to climate change, e.g., suggestions or recommendations for future or potential adaptation, including adaptation planning.

Planned/Institutional/Governmental adaptation:

We excluded studies that did not focus on local (autonomous) adaptation. For example, we excluded reported adaptation at the institutional (e.g., industry), governmental, and (inter-)national level. We also excluded studies with a focus on adaptation purely driven and implemented by external agents, e.g., NGOs, extension services, or researchers.

Impact/risk/uncertainty assessments only:

Studies with a main focus on climate change impacts, e.g., in the biological, physical or human system, including impact perception and observation and/or risk awareness with respect to climate change.

Mitigation:

All studies that focused on mitigation strategies only, e.g., the reduction of greenhouse gas emissions, and increase in carbon sinks.

Sustainable development only:

Articles documenting or assessing sustainable development programs, processes and ideas without an explicit focus on adaptation to climate change.

Vulnerability/resilience/adaptive capacity assessments:

Articles assessing vulnerability of a particular group/system to climate change based on environmental/social factors (e.g. geographical location, poverty level) but without including actual adaptive actions set in place to improve resilience or adaptive capacity.

Timeline:

Studies published before 2015 (<2015) and after 2019 when the data analysis was performed (>2019).

Population:

Studies that did not focus on IPLC with natural resource dependent. For example, studies in metropolitan regions were excluded and studies on populations that mainly depend on work in the service sector or industry, or similar labor work (e.g., small businesses).

Data:

We excluded secondary studies such as reviews, reports and other studies based on secondary data, pure conceptual and theoretical frameworks, and theoretical (e.g., scenario-based) modelling work.

We also excluded studies that present results that were already published in previous work of the same author(s).

Article quality:

Non-peer-revied publications or publications of very low quality.

II. Critical appraisal:

Since our systematic literature review only includes peer-reviewed literature, the case studies have all been through one quality-control process. Nonetheless, we applied some measures to ensure quality. For each publication, we checked the Journal Citation Report (JCR) Impact Factor (IF) for the year 2019. For publications in journals that were scored equal or higher than 1.5, we automatically assumed an acceptable quality (score=1; included) of the publication. For publications in journals with either an impact factor <1.5 [5] or without an impact factor, as well as for all book chapters, we assessed the quality by revising the respective publication with special focus on the method description. Book chapters and studies published in journals with low or no impact factor but which provided basic information on the research approach (i.e., research objective, data collection methods, and a specification of the study site), were accepted for the subsequent data coding and analysis process (score=0.5; included). Publications that did not provide such fundamental information were excluded (score=0; excluded) (see Table SM5). Only one book chapter did not meet the minimum quality requirements.

Table SM5: Considered journals and their JCR Impact Factors for the year 2019.

JCR Impact Factor	**Journal names (number of publications in the database).**
>1.5: included	n=64; Acta Tropica (n=1), Agricultural Systems (n=1), Ambio (n=2), Anthropocene (n=1), Climate and Development (n=7), Climate Research (n=1), Climate Risk Management (n=2), Climatic Change (n=4), Current Opinion in Environmental Sustainability (n=1), Ecological Indicators (n=1), Ecological Processes (n=1), Environment, Development and Sustainability (n=4), Environmental Management (n=1), Environmental Science & Policy (n=3), Experimental Agriculture (n=1), Frontiers in Earth Science (n=1), Frontiers in Marine Science (n=2), GAIA-Ecological Perspectives for Science and Society (n=1), Geoforum (n=1), Global Environmental Change-Human and Policy Dimension (n=1), Human and Ecological Risk Assessment (n=1), International Journal of Biodiversity Science, Ecosystem Services and Management (n=1), International Journal of Disaster Risk Reduction (n=1), International Journal of Sustainable Build Environment (n=1), Journal of Arid Environments (n=1), Journal of Environmental Management (n=2), Journal of Marine Systems (n=1), Land Degradation & Development (n=1), Land Use Policy (n=1), Local Environment: The International Journal of Justice and Sustainability (n=1), Natural Hazards (n=1), Regional Environmental Change (n=2), Scientifica (n=1), Social Science & Medicine (n=1), Society & Natural Resources (n=1), Sustainability (n=4), Sustainability Science (n=1), Theoretical and Applied Climatology (n=1), Water (n=1), Weather, Climate and Society (n=3),

< 1.5 or NA: included after reviewing	n=55 African Geographical Review (n=2), Agenda-Empowering Women for Gender Equity (n=1), Arctic Science (n=1), Asian Geographer (n=1), Climate (n=5), Cogent Social Sciences (n=1), Environment and Natural Resources Journal (n=1), Environmental Hazards-Human and Policy Dimensions (n=2), Environmental Justice (n=1), Genetic Resources and Crop Evolution (n=1), Geography, Environment, Sustainability (n=1), Human Ecology (n=1), Human Organization (n=1), Indian Journal of Traditional Knowledge (n=2), Interdisciplinary Description of Complex Systems (n=1), International Journal of Climate Change Strategies and Management (n=4), International Journal of Social Economics (n=1), Iranian Journal of Science and Technology, Transaction A: Science (n=1), Jamba-Journal of Disaster Risk Studies (n=2), Journal of Agricultural Extension (n=2), Journal of Asian and African Studies (n=1), Journal of Environmental Science and Management (n=2), Journal of Environmental Studies and Sciences (n=1), Journal of Mountain Science (n=2); Journal of Social Sciences (n=1), Mountain Research and Development (n=3), Norsk Geografisk Tidsskrift-Norwegian Journal of Geography (n=1), Pacific Journalism Review (n=1), Pastoralism-Research, Policy and Practice (n=1), Sarhad Journal of Agriculture (n=1), South African Review of Sociology (n=1), The Rangeland Journal (n=1), Book chapters (n=7)
< 1.5 or NA: excluded after reviewing	n=1; Book chapter (n=1)

Final article selection:

The key word search resulted in a total of 582 records published between 2015 and 2019, from which 271 were immediately excluded by reading the title and abstracts, including eight conference proceedings and two non-English publications. Twelve other documents were excluded because they were not findable or accessible. 299 were retrieved for full text reading. 179 articles were excluded because they did not match the topic and one publication was excluded after critical appraisal due to low quality. This resulted in a final list of 119 articles included in the analysis (see Figure SM6 and Supplementary Materials 5 (SM5)).

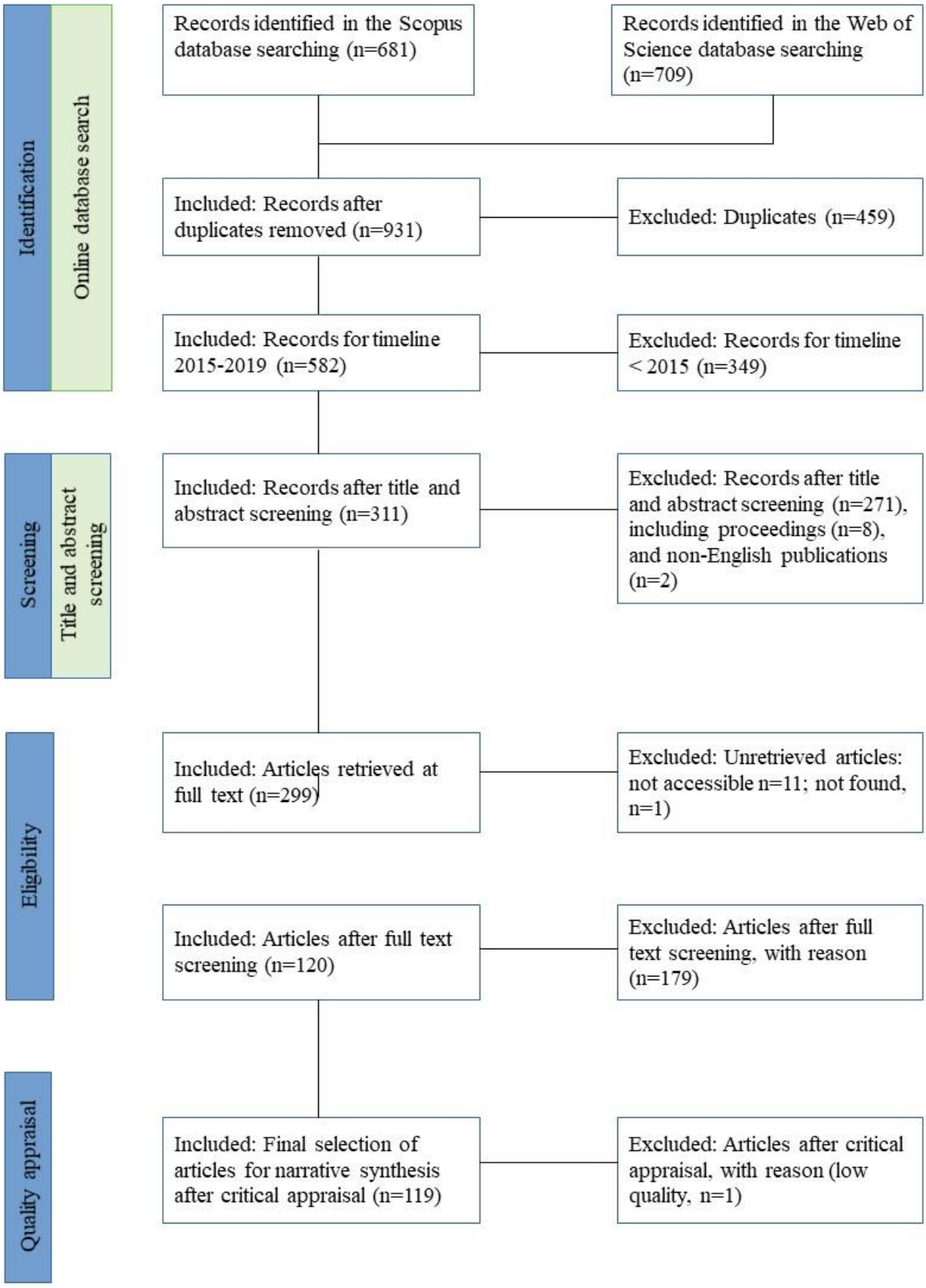

Figure SM6: Summary of document selection according to the ROSES pro forma standard.

Step 4 – Synthesis (data extraction):

From each case study documenting local responses to climate change impacts, we recorded: 1) bibliographic information (e.g., title, authors, publication year, journal), 2) georeferenced location and geographic characteristics (e.g., coordinates, main climate, altitude range), 3) studied group and attributes (e.g., livelihoods), and 4) the list of local responses to climate change. We only coded local responses for which the authors explicitly provided a link to climate change and its impacts. The coded entries of each articles were double-checked by the lead author.

Table SM6: Data extracted and analysed for the purpose of this study.

Variable	**Data entry options**	**Data type**
Bibliographic information	Author(s)	text
	Title	text
	Publication year	numeric
	Journal/Book	text
	Language	text
	DOI	character string
Study site information	X-latitude, Y-longitude	numeric (6 decimal)
	Continent	text
	World region	category
	Country	text
	Location name	text
	Altitude range	category
	main climate according to the Köppen-Geiger classification	category
Study group information	name of study group (e.g., ethnic group)	text
	the three main livelihoods	category
Information on reported local adaptation to climate change	descriptions of local responses to climate change	text
	classification of local responses to climate change	category
	direction of change	category

Information for the georeferenced location and altitude were taken directly from the article, if provided, otherwise from secondary data, such as Wikipedia GeoHack (https://tools.wmflabs.org/geohack/) or Google Maps (https://www.google.com/maps) for the location and Enetplanet (http://www.enetplanet.com/) or Daft Logic Google Maps Finds Altitude (https://www.daftlogic.com/sandbox-google-maps-find-altitude.htm) for the altitude. Since our analysis is a global assessment, possible discrepancies arising from the quality of the secondary data are considered minor, with negligible impacts on the quality of our results. For the estimation of the main climate we used the freely available raster layer of the Köppen-Geiger climates, provided by Kottek et al. [9]. We estimated the climate zone of the study sites based on the GPS locations.

Step 5 - Data Analysis

The global map of the locations of case studies reviewed in this article was drawn with the open-source geographic information system Quantum GIS (QGIS, version 3.4.14-Madeira) [10].

We performed the descriptive and statistical data analysis with RStudio (version 1.2.5033) [11] based on the R language (version 3.6.2) [12].

Supplementary Materials 2 (SM2)

Table SM7: Definitions of the world regions and included countries.

World region	**Countries**
AFR (Sub-Saharan Africa)	Angola, Botswana, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zambia, Zimbabwe,
MEA (Middle East/Nort Africa)	Iran
SAS (South Asia)	Bangladesh, India, Myanmar, Nepal, Pakistan
EAS (Eastern Asia)	China (including Tibet), Vietnam
PAS (Asia-Pacific)	East Timor, Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, Thailand, Vanuatu

LAM (Latin America and the Caribbean)	Bolivia, Brazil, Colombia, Ecuador, Jamaica, Mexico, Peru, Venezuela
NAM (North America)	USA (Alaska), Canada
EUR (Europe)	Finland, Greenland, Norway

Supplementary Materials 3 (SM3)

Table SM8: Spatial distribution and livelihood characteristics of study sites. nonNRD = non or low-natural resource dependent; a: Category totals for the number of case study for the livelihood differ from the number of case studies per continent and altitude since the livelihoods of a given community may be classified into several non-exclusive categories.

	climate zone					
	equatorial	**arid**	**temperate**	**snow**	**polar**	**Total**
Continents, Total	54	30	53	23	21	181
Africa	17	26	15	0	0	58
Asia	30	2	28	6	2	68
North & Central America, excl. Arctic	0	0	1	15	9	25
Oceania	0	0	0	0	0	0
Latin America & the Caribbean	7	2	9	0	9	27
Europe	0	0	0	2	1	3
Altitude, Total	54	30	53	23	21	181
coast	32	8	2	15	10	67
low-/mid-lands (=< 1,500 masl)	19	18	23	2	0	62
high altitudes (1,500 - 2,000 m)	2	2	17	1	0	22
very high altitudes (> 2,500 masl)	1	2	11	5	11	30
Livelihoods, Total[a]	114	53	109	43	41	360

Cultivation	52	19	59	4	11	145
Fishing & Aquaculture	32	9	2	15	10	68
Livestock husbandry	16	19	31	8	7	81
Hunting / Gathering	6	3	6	15	10	40
nonNRD* livelihood	8	3	3	1	2	26

Supplementary Materials 4 (SM4)

Readers are able to access interactive data visualization of the classification of local responses to climate change by Indigenous Peoples and local communities, presented in Figure 2, Table SM9, Table SM10 and https://licci.eu/local-responses-to-climate-change-classification.

Table SM9: Definition of the response sectors, domains and types (in alphabetic order).

Response level	**Definition**
Response sector	AQ: Changes in the aquaculture sector; CU: Changes in the cultivation sector; FI: Changes in the fishery sector; LS: Changes in the livestock sector; OA: Changes in 'other activities'
Response domain	CAPAC: Changes in the capacity building related to the human and social capital; INPUT: Changes in the input of productive resources (FERTD: fertiliser; FOODD: food; MEDIC: medicine/antibiotics; PESTD: pesticides; WATER: water); LOCAT: Changes in locations; PRACT: Changes in practices; PRODU: Changes in livelihood products; SCHED: Changes in time management; SYSTM: Changes in the livelihood system
Response type	COMPS: Changes in the composition of resource input and livelihood products; BUILT: Changes in built construction; DEMND: Changes in the demand of resource input and livelihood products; DURAT: Changes in duration; HUMAN: Changes in human capacities; INCOM: Changes in income generation; LIVLI: Changes in the natural-resource-based livelihood system; METHD: Changes in methods and techniques; MOBIL: Changes in mobility; MONIT: Changes in observation and monitoring; NETWK; Changes in social relation and networks; MIGRT: Changes in migration;

	NATUR: Biodiversity conservation; ORIGN: Changes in the provenance of resource input and livelihood products; PLACE: Changes in nearby places (close-by relocation); STORE: Changes in storage and storage facilities; TIMES: Changes in timing; TRANS: Changes in (water) transport facilities;

Table SM10: Examples of the classification of documented local responses to climate change impacts. The columns refer to the response sector, while the rows refer to the response domain. Examples refer to different response types belonging to the respective response sector and domain.

	Cultivation [CU]	**Animal husbandry [LS]**	**Fishing [FI]**	**Aquaculture [AQ]**	**Hunting/ Gathering [HG]**	**Other activities [OA]**
Practices & technique [PRACT]	Mulching; [minimal] tillage; soil bunds; terracing; contour farming; cover cropping; ratoon system; zaï plantings; weeding; application of wood ash for soil conservation; replace topsoil after flood [METHD]; forecast the seasonal calendar for agriculture [MONIT]	Indigenously made cover or dress for animals; use of helicopters to gather reindeer [METHD]; constructing cow sheds [BUILT]; grazing ban with fences [NATUR]	Changing fishing gear [e.g., fish-traps, koheh fishing net, pwengai bowl, modern fishing methods], boat-based fishing, e.g., use bimbas instead of chatas; use GPS; tying down boats to secure from storm surge [METHD]; poach illegally in the marine reserve; engage fishing agreement [NATUR]	Intensify traditional practices of aquaculture [METHD]	Use of aluminium boats, GPS and SPOT devices [METHD]; place tabu to restrict harvesting of fruits and nuts; planning, regulating and monitoring of protected areas [NATUR]	Rising the floor level of houses; boarding up windows; alternative or traditional construction materials; sea wall construction using rock, sand and bamboo [CONST]; ILK-based and scientific weather forecast; monitoring flood areas [MONIT]; use of mosquito nets [METHD]; increase forest protection; mangrove restoration [NATUR]
Productive resource	Irrigation, e.g., groundwater-based;	Water points for livestock;	-	Drain excess water in the	Storing famine food; drying and	Reduction in number and size of daily meals;

input [INPUT]	water use efficiency; manuring, e.g., corralling livestock overnight on the fields; chemical fertilizer; organic / chemical pesticides [DEMND]; composting [ORIGN]; rainwater harvesting; riverside wells; store rice [STORE]; irrigation channels; bamboo pipes; replace steel pipe with plastic pipe; water pumps drainage [TRANS]	veterinary medicine [DEMDN]; supplementary feeding; crop residues [COMPS]; preserve fodder as hay; fodder banks; store dried meat [STORE]; buy fodder; grass planting; fodder crop cultivation; collect fodder [ORIGN]		rainy season; pump water from the canal into the ghers/ponds) [TRANS]	storing wild fruits under sun and then kept for consumption [STORE]	use of medicinal plants [DEMND]; pond construction; access springs in dry spells; changing diet; [COMPS]; rainwater harvesting; store food, e.g., for winter [STORE]; buying food at local market; cultivate medicinal plants [ORIGN]
Livelihood product [PRODU]	Mixed cropping, e.g., relay intercropping; agroforestry; altering crop species and varieties, e.g., drought- and salt-tolerant crops,	Destocking; switch farmland to grazing [DEMND]; relying on small livestock; raising	target different fish species [COMPS]	Re-introduction of salt-tolerant fish species; preference of indigenous	Reduce amount of collected firewood [DEMND]; going now after smaller whales; switching	-

	local varieties, hybrid varieties; crop rotations; succession planting; gardening [COMPS]; reduce cultivated area [DEMND]; seed exchange; purchasing grains [ORIGN]; store seeds [STORE]	more goats than sheep; improved animal breeds; incorporating indigenous chicken; complementary grazing [COMPS];		over exotic fishes [COMPS]	hunted species [COMPS];	
Capacity building (human & social capital) [CAPAC]	join agricultural co-operations; share machinery; access agricultural extension services [NETWK]	elected committee for making regulations of grazing; barter trading; collective grazing with land user fee system [NETWK]	fishery co-management [NETWK]	co-operative pond construction [NETWK]	sharing network for SPOT devices [NETWK]	educate children; training with professionals [HUMAN]; reciprocity; customary law that regulates relationships; community cohesion; collective action; resource sharing; praying; rituals; relying on NGOs [NETWK]

System transformation [SYSTM]	Combine herding with farming [LIVLI]; Market gardening; crop insurance [INCOM]	Switch from farming to livestock; mixed farming [LIVLI]; sell livestock, e.g., in times of drought; sell meat [INCOM]	Switch from farming to fishing [LIVLI]; commercial fishing [INCOM]	Start clamshell farming; crab culture [LIVLI]	Start hunting geese; start picking wild fruits and plants; collect medicinal plants [LIVLI]; start selling bush products; collect bait to sell [INCOM]	Off-farm work [e.g., wage labor; [eco-]tourism, gold panning]; reliance on remittances, loans [INCOM]
Location [LOCAT]	Field rotation and fallowing; riverbed farming; minimize cultivation near riparian sources [PLACE]; move to better farm land [MIGRT]; swidden agriculture [MOBIL]	Avoid animal husbandry in riparian zones; rotational grazing [PLACE]; migrate with herds to places with better forage; herd splitting [MIGR]; [decline in] transhumance; adapt migratory routes [MOBIL]	fish closer inshore; go further out to sea [PLACE]; migrate to other fishing grounds [MIGRT]; migrate after the fish [MOBIL]	-	Avoidance of weak ice; adjust hunting location [PLACE]; travelling over 160 km to hunt [MIGRT]	Build house away from flood-prone area; women travel long distances to fetch water [PLACE] seasonal or permanent (out-) migration, e.g., to urban areas or to places with water [MIGRT]; construction of bridges [MOBIL]

Time management/ schedule [SCHED]	Earlier sowing and planting dates; harvest before flash flood; nurse seedling in the rainy season; multiple cropping dates [TIMES]	Adapt migratory dates; later grazing on winter pasture [TIMES]; adapt migratory duration [DURAT]	Fish overnight; shift fishing times; wait for the weather to improve [TIMES]; longer fishing trips; reduce number of days out in the sea [DURAT]	Fill the ghers/ponds in dry season [TIMES]	Wait for weather to improve [TIMES]; shorter hunting season; longer harvesting trips [DURAT]	Re-scheduling community events [TIMES]

Supplementary Materials 5 (SM5)

Table SM11: List of documents that were coded and analysed in this review.

Country	Climate_code	LACCIpublication_ID	Reference
Alaska / USA	C	601	[1]
	D	90	[2]
		112	[3]
		637	[4]
	E	90	[2]
		637	[4]
Angola	B	680	[5]
Bangladesh	A	125	[6]
		144	[7]
		226	[8]
		634	[9]
		656	[10]
	C	125	[6]
		170	[11]
		290	[12]
Bolivia	B	164	[13]
	C	164	[13]
		648	[14]
	E	164	[13]
		648	[14]
Botswana	B	298	[15]
		633	[16]
		646	[17]
Brazil	A	106	[18]
		658	[19]
		667	[20]
Canada	C	601	[1]
	D	670	[21]
		676	[22]
		683	[23]
	E	603	[24]
		670	[21]
		676	[22]
China	C	278	[25]
		684	[26]
		897	[27]
	D	291	[28]
		672	[29]
	E	278	[25]
Colombia	C	608	[30]
East Timor	A	666	[31]
Ecuador	B	606	[32]
	C	904	[33]

	E	904	[33]
Ethiopia	A	604	[34]
	B	600	[35]
		649	[36]
		688	[37]
	C	115	[38]
		604	[34]
		625	[39]
		643	[40]
Finland	D	138	[41]
Ghana	A	143	[42]
		619	[43]
		627	[44]
		629	[45]
		664	[46]
		690	[47]
Greenland / Denmark	E	681	[48]
India	A	623	[49]
		628	[50]
	B	669	[51]
	C	157	[52]
		289	[53]
		605	[54]
		645	[55]
		654	[56]
		669	[51]
		672	[29]
		863	[57]
	D	095	[58]
		672	[29]
Indonesia	A	632	[59]
		666	[31]
Iran	C	615	[60]
Jamaica	A	626	[61]
Kenya	B	614	[62]
	C	810	[63]
Lesotho	C	147	[64]
Malawi	A	137	[65]
		630	[66]
		674	[67]
		682	[68]
	B	137	[65]
		682	[68]
	C	674	[67]
Mexico	A	004	[69]
		602	[70]
Myanmar	A	279	[71]
	B	620	[72]

Namibia	B	655	[73]
		680	[5]
Nepal	C	100	[74]
		113	[75]
		142	[76]
		609	[77]
		621	[78]
		635	[79]
		672	[29]
Nigeria	A	631	[80]
		636	[81]
		638	[82]
Norway	D	653	[83]
Pakistan	C	686	[84]
Papua New Guinea	A	639	[85]
Peru	C	678	[86]
	E	127	[87]
		678	[86]
Philippines	A	611	[88]
		640	[89]
		647	[90]
		657	[91]
		666	[31]
		920	[92]
Rwanda	C	662	[93]
Solomon Islands	A	285	[94]
South Africa	B	119	[95]
		292	[96]
		680	[5]
		687	[97]
	C	171	[98]
		659	[99]
		687	[97]
Tanzania	A	058	[100]
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		286	[102]
		661	[103]
	B	058	[100]
		661	[103]
Thailand	A	616	[104]
Tibet	D	613	[105]
Uganda	A	612	[106]
Vanuatu	A	133	[107]
Venezuela	C	608	[30]
Vietnam	A	660	[108]
	C	617	[109]
		618	[110]
Zambia	B	010	[111]

	C	010	[111]
Zimbabwe	B	607	[112]
		644	[113]
		679	[114]
	C	104	[115]
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