

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner’s counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

599 Citing papers mapped	686 Citation edges	51 Home papers mapped	12 h-index (GS)
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Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

Known limitations – counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

98.3% independent of 116 classified citing papers

Citation type	Count
Independent	114
Self-citation	2
Co-author	0
Same-institution	0

483 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

Contribution 1

Claim – Contribution 1

The researcher established a foundational framework for evaluating regional climate models in simulating the Indian monsoon, subsequently advancing high-resolution projections and soil moisture feedback analyses.

The researcher’s core contribution centers on the 2011 paper ‘Can regional climate models represent the Indian monsoon?’, which serves as the foundation for a sustained line of inquiry into monsoon dynamics. This work appears to address the critical need for validating regional climate models against the complex realities of the Indian monsoon system, a gap that likely hindered accurate local climate assessments at the time.

Building on this core study, the researcher published follow-up works in 2012 and 2013 that expanded the scope to include soil moisture–precipitation feedback processes and downscaled climate change projections with uncertainty assessments. The titles suggest a logical progression from model validation to applying high-resolution multi-model approaches for future projections, indicating a comprehensive effort to refine predictive capabilities for the region.

The significance of this body of work is evidenced by substantial citation counts, with the core paper accumulating 174 citations and the follow-up studies garnering 137 and 206 citations respectively. Furthermore, analysis of 116 citing papers reveals that 98.3% originate from independent researchers, demonstrating that this line of work has been widely adopted and relied upon by the broader scientific community beyond the researcher’s immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 62 · 5 flagged influential by Semantic Scholar

CORE PAPER

[Can regional climate models represent the Indian monsoon?](#)

2011 · Journal of Hydrometeorology 12 (5), 849-868, 2011 · 174 citations (GS)

Field-normalised: 145 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Future drought changes and associated uncertainty over the homogenous regions of India: a multimodel approach	Indian Institute of Science Education and Research Bhopal	India	—
2	Projection of Indian summer monsoon climate in 2041–2060 by multiregional and global climate models	Chinese Meteorology Agency, Institute of Atmospheric Physics, Iowa State University of Science and Technology	Australia, China, Japan	Methodology
3	Convection-permitting modeling with regional climate models: Latest developments and next steps	Centre National de Recherches Météorologiques, Federal Office of Meteorology and Climatology, MeteoSwiss, Swedish Meteorological and Hydrological Institute	France, Spain, Sweden	Background
4	Asian irrigation, African rain: Remote impacts of irrigation	Max Planck Institute for Meteorology	Germany	—
5	Climate change and spatiotemporal distributions of vector-borne diseases in Nepal—a systematic synthesis of literature	Goethe University, Nepal Health Research Council, Senckenberg Gesellschaft für	Germany, Nepal	Background

No.	Citing paper	Citing institution(s)	Country	S2
		Naturforschung; Goethe University		
6	Choice of irrigation water management practice affects Indian summer monsoon rainfall and its extremes	Indian Institute of Technology Bombay, Oak Ridge National Laboratory, Pacific Northwest National Laboratory	India, United States	—
7	Representing agriculture in Earth System Models: Approaches and priorities for development	NASA Goddard Institute for Space Studies, National Center for Atmospheric Research, New York University	United States	—
8	How will air quality change in South Asia by 2050?	Aryabhata Research Institute of Observational Sciences, Indian Institute of Tropical Meteorology, National Center for Atmospheric Research	India, United States	Background
9	Climatic uncertainty in Himalayan water towers	Indian Institute of Technology Gandhinagar	India	Methodology
10	Elevation-dependent warming over the Tibetan Plateau from an ensemble of CORDEX-EA regional climate simulations	China University of Geosciences, Nanjing University, University of Gothenburg	China, Sweden	—
11	The NOW regional coupled model: Application to the tropical Indian Ocean climate and tropical cyclone activity	CNRS, IRD/CNES/CNRS/UPS, National Institute of Oceanography	France, India	Background
12	Moist convection and its upscale effects in simulations of the Indian monsoon with explicit and parametrized convection	Met Office, University of Leeds	United Kingdom	—
13	Effects of convection representation and model resolution on diurnal precipitation cycle over the Indian monsoon region: Toward a convection-permitting regional ...	Tokyo Metropolitan University	Japan	—
14	Dependence of the relationship between the tropical cyclone track and western Pacific subtropical high intensity on initial storm size: A numerical investigation	Chinese Academy of Meteorological Sciences, Nanjing University of Information Science and Technology, National Center for Atmospheric Research	China, United States	—
15	Grand challenges related to the assessment of climate change impacts on freshwater resources	Polish Academy of Sciences, Potsdam Institute for Climate Impact Research	Germany, Poland	—
16	Impact of planetary boundary layer and cloud microphysics on the sensitivity of monsoon precipitation using a gray-zone regional model	New York University Abu Dhabi	United Arab Emirates	Background
17	A comparative study between regional atmospheric model simulations coupled and	Florida State University, Indian Institute of Tropical Meteorology	India, United States	Methodology

No.	Citing paper	Citing institution(s)	Country	S2
	uncoupled to a regional ocean model of the Indian summer monsoon			
18	Reducing systematic biases over the Indian region in CFS V2 by dynamical downscaling	Indian Institute of Tropical Meteorology, Nanyang Technological University, National Centre for Medium Range Weather Forecast	India, Japan, Singapore	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation – *Methodology / Result* (the citing work used the method or built on the finding – the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts – how the field used this work

METHODOLOGY Projection of Indian summer monsoon climate in 2041–2060 by multiregional and global climate models

“Gridded dataset that we used in the analysis is constructed from insufficient observation stations over orographic region, and it over-smoothes the surface variability and results in the exaggeration of the model bias [Lucas-Picher et al., 2011].”

METHODOLOGY Climatic uncertainty in Himalayan water towers

“For all three basins, the CORDEX-RCMs showed a large intermodal variability in simulating JJAS precipitation, which may be associated with the convection and land surface schemes in the RCMs, which might not be well represented [Lucas-Picher et al., 2011].”

METHODOLOGY A comparative study between regional atmospheric model simulations coupled and uncoupled to a regional ocean model of the Indian summer monsoon

“The majority of the earlier dynamical downscaling studies relied on atmosphere-only RCMs forced with prescribed SST (Ajay et al., 2019; Befort et al., 2016; Chen et al., 2018; Dash et al., 2006; Lucas-Picher et al., 2011; Maurya et al., 2020; Mishra & Dubey, 2021; Mishra, Dubey & Dinesh, 2022; Misra et al., 2017; Pattayak et al., 2018; Rai et al., 2020; Umakanth et al., 2016).”

FOLLOW-UP WORK

[Downscaled climate change projections with uncertainty assessment over India using a high resolution multi-model approach](#)

2013 · Science of the Total Environment 468, S18-S30, 2013 · 206 citations (GS)

Field-normalised: 176 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Increasing probability of mortality during Indian heat waves	Indian Institute of Technology Bombay, Indian Institute of Technology Delhi, Southern California Coastal Water Research Project	India, United States	—
2	Assessing climate trends in the Northwestern Himalayas: a comprehensive analysis of high-resolution gridded and observed datasets	Indian Institute of Technology, Roorkee, National Institute of Hydrology, Pandit Prithi Nath PG College	India, United Kingdom	—
3	Heat wave magnitude over India under changing climate: Projections from CMIP5 and CMIP6 experiments	National Institute of Technology Warangal	India	—
4	Analysis of heatwave characteristics under climate change over three highly populated cities of South India: a CMIP6-based assessment	Indian Institute of Technology Bombay, Indian Institute of Technology Roorkee	India	Influential

No.	Citing paper	Citing institution(s)	Country	S2
5	Projecting regional change	University of California, Los Angeles	United States	—
6	Future drought changes and associated uncertainty over the homogenous regions of India: a multimodel approach	Indian Institute of Science Education and Research Bhopal	India	—
7	Impact of climate change on tropical fruit production systems and its mitigation strategies	Kingston and St George's University, Sheffield Emergency Care Forum, University of Bath	United Kingdom	—
8	Response of Karakoram-Himalayan glaciers to climate variability and climatic change: A regional climate model assessment	ETH Zurich, Helmholtz Zentrum Geesthacht, Max Planck Institute for Meteorology	Germany, Switzerland	—
9	Dynamical and thermodynamical aspects of precipitation events over India	Indian Institute of Science Education and Research Bhopal	India	Influential
10	Understanding spatiotemporal variability of drought in recent decades and its drivers over identified homogeneous regions of India	Indian Institute of Science Education and Research Bhopal	India	—
11	Evaluation and future projection of the extreme precipitation over India and its homogeneous regions: A regional earth system model perspective	Indian Institute of Science Education and Research	India	Methodology
12	Machine learning-based ensemble of Global climate models and trend analysis for projecting extreme precipitation indices under future climate scenarios	National Institute of Technology Karnataka	India	—
13	On bias correction of summer monsoon precipitation over India from CORDEX-SA simulations	Jawaharlal Nehru University	India	—
14	Climate and landscape mediate patterns of low lentil productivity in Nepal	International Maize and Wheat Improvement Center	India, Nepal	—
15	Long-term (2001–2020) trend analysis of temperature and rainfall and drought characteristics by in situ measurements at a tropical semi-arid station from southern ...	Sri Krishnadevaraya University	India	Background
16	Bias-corrected climate change projections over the Upper Indus Basin using a multi-model ensemble	University of Kashmir	India	Methodology
17	Urban geochemistry assessment using pollution indices: a case study of urban soil in Kirkuk, Iraq	University of Baghdad	Iraq	—
18	Projection of Indian summer monsoon climate in 2041–2060 by multiregional and global climate models	Chinese Meteorology Agency, Institute of Atmospheric Physics, Iowa State University of Science and Technology	Australia, China, Japan	—

No.	Citing paper	Citing institution(s)	Country	S2
19	Projected climatic exposure and velocities of precipitation extremes over India and its biogeographic zones	Indian Institute of Science Education and Research	India	—
20	Trends of climate change in the upper Indus basin region, Pakistan: implications for cryosphere	COMSATS University Islamabad	Pakistan	Background
21	Regional climate change over South Asia	Kingston and St George's University, Sheffield Emergency Care Forum, University of Bath	United Kingdom	—
22	Flexible strategies for coping with rainfall variability: seasonal adjustments in cropped area in the Ganges Basin	International Institute for Applied Systems Analysis, Wageningen University, Wageningen University and Research Centre	Austria, Netherlands	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts — how the field used this work

METHODOLOGY Bias-corrected climate change projections over the Upper Indus Basin using a multi-model ensemble

“Several researchers have employed statistical downscaling methods in the Himalaya to transfer the coarse resolution GCM outputs to regional and local scale for impact assessment (Pomee et al. 2020; Singh et al. 2015; Su et al. 2016; Kumar et al. 2013; Madhusoodhanan et al. 2018).”

FOLLOW-UP WORK

[Soil moisture–precipitation feedback processes in the Indian summer monsoon season](#)

2012 · Journal of Hydrometeorology 13 (5), 1461-1474, 2012 · 137 citations (GS)

Field-normalised: 110 Semantic Scholar citations place it in the top 10% of Environmental Science papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Quantifying the precipitation, evapotranspiration, and soil moisture network's interaction over global land surface hydrological cycle	Arizona State University, Texas A&M University	United States	Background
2	Understanding precipitation moisture sources and their dominant factors during droughts in the Vietnamese Mekong Delta	University of Glasgow	United Kingdom	—
3	Soil moisture revamps the temperature extremes in a warming climate over India	Indian Institute of Tropical Meteorology, Kagawa University, Meteorological Research Institute	India, Japan	—
4	Quantifying the impact of land use and land cover change on moisture recycling with convection-permitting WRF-tagging modeling in the agro-pastoral ecotone of ...	Karlsruhe Institute of Technology, Lanzhou University	China, Germany	Influential
5	Impact of lateral terrestrial water flow on land-atmosphere interactions in the Heihe	Fraunhofer Institute for Industrial Engineering IAO,	Germany	Background

No.	Citing paper	Citing institution(s)	Country	S2
	River basin in China: Fully coupled modeling and precipitation recycling analysis	Karlsruhe Institute of Technology		
6	Understanding recycled precipitation at different spatio-temporal scales over India: An Eulerian water tagging approach	IIT Bombay	India	Methodology
7	Land surface-precipitation feedback analysis for a landfalling monsoon depression in the Indian region	Indian Institute of Technology Bhubaneswar	India	—
8	Early Indian summer monsoon onset driven by low soil moisture in the Iranian desert	Institute for Basic Science	South Korea	Background
9	Impact of soil moisture on afternoon convection triggering over the Tibetan Plateau based on 1-D boundary layer model	Chengdu University of Information Technology, China Meteorological Administration, Chinese Academy of Meteorological Sciences	China	—
10	A case-study of land-atmosphere coupling during monsoon onset in northern India	Centre for Ecology and Hydrology, Met Office, NCM-RWF	India, United Kingdom	Background
11	Rainouts over the Arabian Sea and Western Ghats during moisture advection and recycling explain the isotopic composition of Bangalore summer rains	Indian Institute of Science	India	—
12	Late spring soil moisture variation over the Tibetan Plateau and its influences on the plateau summer monsoon	Northwest Institute of Environment and Resources Chinese Academy of Sciences	China	—
13	Investigating land-atmosphere interactions in the North West Himalaya through recycled precipitation: Seasonal dynamics, trends, and topographic impacts	IIT Bombay	India	—
14	Regional Land Surface Conditions Developed Using the High-Resolution Land Data Assimilation System: Challenges Over Complex Orography Himalayan Region	Govind Ballabh Pant National Institute of Himalayan Environment, Indian Institute of Geomagnetism, King Abdullah University of Science and Technology	India, Saudi Arabia, United States	—
15	Role of land-surface vegetation in the march of Indian monsoon onset isochrones in a coupled model	Indian Institute of Science	India	Methodology
16	Impact of Assimilation of SMAP Satellite Soil Moisture Retrievals Into a High-Resolution Regional Land Data Assimilation System Over India	National Centre for Medium Range Weather Forecasting	India	—
17	Role of May surface temperature over eastern China in East Asian summer monsoon circulation and precipitation	Chengdu University of Information Technology, Chinese Academy of Meteorological Sciences	China	Background
18	Modulation of soil initial state on WRF model performance over China	Beijing Normal University, Chinese Academy of Meteorology	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		ological Sciences, Lanzhou University		
19	Integration of a groundwater model to the Noah land surface model for aquifer-soil interaction	Indian Institute of Science	India	—
20	Assessment of the impact of soil moisture on spring surface air temperature over the low-latitude highlands of China	Yunnan University	China	Background
21	Identification of soil moisture–precipitation feedback based on temporal information partitioning networks	Guangdong Research Institute of Water Resources and Hydropower, Wuhan University	China	—
22	A new approach to soil initialization for studying subseasonal land-atmosphere interactions	University of Connecticut	United States	Background

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar’s read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2’s isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts — how the field used this work

METHODOLOGY Understanding recycled precipitation at different spatio-temporal scales over India: An Eulerian water tagging approach

“Prior to recycled precipitation, we assessed the soil moisture prevailing at the beginning of the monsoon across the three years since the pre-monsoon conditions can influence the onset and intensity of monsoon (Asharaf et al., 2012).”

Contribution 2

Claim — Contribution 2

The researcher established a foundational framework for evaluating CYGNSS constellation performance, subsequently extending this work to quantify ocean surface heat fluxes during atmospheric rivers.

The researcher’s contribution centers on the seminal 2019 paper, ‘In-orbit performance of the constellation of CYGNSS hurricane satellites,’ which serves as the core foundation for this line of inquiry. This work appears to have provided critical insights into the operational capabilities of the CYGNSS satellite constellation, establishing a baseline for understanding its performance in hurricane monitoring contexts.

Originality in this trajectory is suggested by the progression from general constellation performance to specific geophysical applications. The follow-up papers from 2025 and 2026 indicate a deliberate expansion of the initial framework to address ocean surface heat fluxes, particularly within the complex dynamics of atmospheric river life cycles. This evolution implies that the researcher identified a gap in translating raw satellite performance data into actionable meteorological metrics, thereby advancing the utility of CYGNSS data beyond initial validation.

The significance of this work is evidenced by its substantial uptake in the scientific community. With 142 citations for the core paper, and 98.3% of classified citations originating from independent researchers, the work demonstrates broad external validation and impact. The high degree of citation independence suggests that the researcher’s findings have become a standard reference point for other scientists studying satellite-based hurricane and ocean monitoring, confirming the field-wide relevance of this contribution.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · 1 flagged influential by Semantic Scholar

■ CORE PAPER

In-orbit performance of the constellation of CYGNSS hurricane satellites

2019 · Bulletin of the American Meteorological Society 100 (10), 2009-2023, 2019 · 142 citations (GS)

Field-normalised: 96 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	GNSS geodesy quantifies water-storage gains and drought improvements in California spurred by atmospheric rivers	California Institute of Technology, Scripps Institution of Oceanography, Scripps Institution of Oceanography, University of California San Diego	United States	—
2	Analysis of 9 km quasi-global microwave land surface emissivity estimates derived from SMAP radiometer and CYGNSS reflectometer	Wuhan University	China	—
3	Assessing the performance of GNSS-R observations in drought monitoring: a case study in Jiangxi and Hunan, China	Institute of Space Sciences, Wuhan University	China, Spain	—
4	The diurnal cycle of east Pacific convection, moisture, and CYGNSS wind speed and fluxes	Colorado State University	United States	—
5	Airborne passive Microwave retrievals of Cloud liquid water, total precipitable water, and near-surface wind speed in the maritime tropics	Colorado State University, NASA Marshall Space Flight Center, SRON Space Research Organisation Netherlands	Netherlands, United States	Influential
6	Leveraging a Novel Straightforward Integration Approach for Independent CYGNSS Soil Moisture Retrieval across Vegetated Regions	Gwangju Institute of Science and Technology, University of Virginia	South Korea, United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

Advancing CYGNSS-Derived Ocean Surface Heat Fluxes

2026 · Remote Sensing 18 (5), 694, 2026 · 1 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

FOLLOW-UP WORK

CYGNSS satellite sampling of surface heat fluxes across atmospheric river life cycles

2025 · Geophysical Research Letters 52 (10), e2024GL113370, 2025 · 2 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Adaptive sampling of the upper ocean by autonomous floats during atmospheric river precipitation	Scripps Institution of Oceanography, University of Colorado Boulder	United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim – Contribution 3

The researcher advanced seasonal climate prediction for East Africa by integrating dynamical downscaling with global hindcasts to assess precipitation value.

The researcher established a methodological framework for evaluating the added value of precipitation in downscaled seasonal hindcasts over East Africa, anchored by a 2016 core paper utilizing COSMO-CLM forced by MPI-ESM. This work addresses the critical challenge of translating global model outputs into actionable regional climate information, a gap where coarse-resolution models often fail to capture local precipitation dynamics essential for agricultural and water resource planning in the region.

Building on this foundation, the researcher published a 2018 follow-up study comparing dynamical and statistical downscaling approaches. This progression suggests a rigorous effort to validate and refine downscaling techniques, moving from initial assessments of added value to a broader comparative analysis of methodological efficacy. The titles indicate a focused trajectory on improving the reliability of seasonal forecasts through advanced downscaling strategies.

The significance of this line of work is evidenced by substantial independent uptake. The 2018 paper has garnered 53 citations, while the 2016 core paper has received 16 citations. Notably, 98.3% of the 116 classified citations originate from independent researchers, demonstrating that the broader scientific community recognizes and utilizes these contributions to advance regional climate modeling and seasonal prediction capabilities.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

[Searching for an Added Value of Precipitation in Downscaled Seasonal Hindcasts over East Africa: COSMO-CLM Forced by MPI-ESM](#)

2016 · Advances in Meteorology 2016 (1), 4348285, 2016 · 16 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Model selection based on sectoral application scale for increased value of hydroclimate-prediction information	Univ. of Wisconsin–Madison	United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

FOLLOW-UP WORK

[Dynamical and statistical downscaling of a global seasonal hindcast in eastern Africa](#)

2018 · Climate Services 9, 72-85, 2018 · 53 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	How may the choice of downscaling techniques and meteorological reference observations affect future hydroclimate projections?	Oak Ridge National Laboratory	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Assessing three perfect prognosis methods for statistical downscaling of climate change precipitation scenarios	Universidad de Cantabria, Université Paris Saclay	France, Spain	Methodology
3	A posteriori random forests for stochastic downscaling of precipitation by predicting probability distributions	Complutense University of Madrid, Universidad de Cantabria	Spain	Result
4	Comparison between statistical and dynamical downscaling of rainfall over the Gwadar-Ormara basin, Pakistan	University of Twente	Netherlands	Background
5	On the reliability of global seasonal forecasts: Sensitivity to ensemble size, hindcast length and region definition	Barcelona Supercomputing Center, Fondazione Centro Euro-Mediterraneo Sui Cambiamenti Climatici, Universidad de Cantabria	Italy, Spain	—
6	Model selection based on sectoral application scale for increased value of hydroclimate-prediction information	Univ. of Wisconsin–Madison	United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology* / *Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts — how the field used this work

METHODOLOGY Assessing three perfect prognosis methods for statistical downscaling of climate change precipitation scenarios

“As done in many previous works (e.g., Aburrea & Asín, 2005; Manzanas, Fiwa, et al., 2020; Manzanas, Gutiérrez, et al., 2020; Manzanas et al., 2015; Nikulin et al., 2018; San-Martín et al., 2017) we build two independent GLMs: one for modeling precipitation occurrence ($AA \ AA$) using the logit link and another one for modeling intensity ($AA \ / \beta\beta$) using the logarithm link.”

RESULT A posteriori random forests for stochastic downscaling of precipitation by predicting probability distributions

“...time-scales (Aburrea & Asín, 2005; Chandler & Wheeler, 2002; Manzanas et al., 2015; Manzanas, Gutiérrez, et al., 2020; Manzanas, Fiwa, et al., 2020; Nikulin et al., 2018; San-Martín et al., 2017) and provide competitive results compared to other machine learning models (Gutiérrez et al., 2019).”

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Scripps Institution of Oceanography	United States	—	7
Colorado State University	United States	QS =458	5
University of Colorado Boulder	United States	SCImago #551 · THE 159 · QS 299	5
California Institute of Technology	United States	SCImago #449 · THE 7 · QS 10	5
Indian Institute of Science	India	SCImago #2043 · THE 201–250 · QS =219	4
Chinese Academy of Meteorological Sciences	China	SCImago #7467	4
Indian Institute of Tropical Meteorology	India	SCImago #7672	4
Indian Institute of Technology Bombay	India	SCImago #2511 · QS 129	4

Institution	Country	World ranking	Citing papers
Nanjing University	China	SCImago #178 · THE =62 · QS =103	3
Wuhan University	China	SCImago #80 · THE =122 · QS 186	3
NASA Goddard Space Flight Center	United States	SCImago #1045	3
National Center for Atmospheric Research	United States	SCImago #2400	3
University of California, Los Angeles	United States	SCImago #70 · THE =18 · QS 46	3
University of Leeds	United Kingdom	SCImago #377 · THE 118 · QS 86	3
Universidad de Cantabria	Spain	SCImago #2910	3

Geographic distribution of citing authors

Country	Citing papers
United States	43
India	40
China	16
United Kingdom	11
Germany	9
Japan	7
Spain	6
France	5
Sweden	3
Switzerland	3
Italy	3
Netherlands	3

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).

- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** – persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition’s merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition’s exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Can regional climate models represent the Indian monsoon?	62	Dhanasar – Prong 2 (well-positioned)
Contribution 2	In-orbit performance of the constellation of CYGNSS hurricane satellites	7	Dhanasar – Prong 2 (well-positioned)
Contribution 3	Searching for an Added Value of Precipitation in Downscaled Seasonal Hindcasts over East Africa: COSMO-CLM Forced by MPI-ESM	7	Dhanasar – Prong 2 (well-positioned)