Aligning the Digital Attention Economy with Climate Goals: A Global Framework for Media, OTT and Social Platforms in 1.5°C Pathways

Submission for the UNFCCC Belém Mission to 1.5

Proposed by: Global Institute for Circular Economy and SDGs (ICE&SDGs), Hyderabad, India
URL: www.krystahl.in I www.krystahlESG.cloud I www.krystahl.com I www.ce-sdg.org

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Executive Summary

The global media, OTT, film, television and social-media ecosystem have become one of the most powerful behavioural infrastructures of the 21st century. It shapes public attention, consumption patterns, mental health, family relationships, social cohesion, political discourse, advertising demand, data-centre growth, electricity use and water demand. Yet, despite this scale, the sector is not treated as a clearly defined high-impact climate action area in NDC/NAP implementation pathways.

As we noted from the website Message to Parties and Observers - Call for Inputs for the Belém Mission to 1.5 | UNFCCC the Belém Mission to 1.5 is created to enable ambition and implementation of nationally determined contributions and national adaptation plans, with a focus on accelerating implementation, international cooperation and investment; it will culminate in a report ahead of COP31 identifying high-impact action areas, barriers and actionable solutions for decision-makers, innovators and investors.

This submission therefore proposes that **Media, OTT, Social Media, Film and Digital Attention Infrastructure** be recognised as a high-impact cross-cutting sector for climate mitigation, adaptation, public health, behavioural resilience and sustainable consumption.

Global digital scale is now immense. In early 2025, there were **5.56 billion internet users**, **5.24 billion social media user identities**, and adults spent an average of **6 hours 38 minutes online per day**; internet users also spent an average of **3 hours 13 minutes watching television** across linear, streaming and recorded formats.

India illustrates the urgency: DataReportal reports **806 million internet users** and **491 million social media user identities** in India in early 2025. The uploaded draft also incorporated the estimate that Indians spent approximately **1.1 trillion smartphone hours in 2024**, with a large share directed toward social media, gaming and video.datareportal

The climate and water dimensions are material. The IEA estimates that data centres consumed around **415 TWh** of electricity in 2024, around **1.5% of global electricity use**, and projects this could reach around **945 TWh by 2030**, just under **3% of global electricity consumption**. The IEA's corrected central estimate for streaming is approximately **36g CO_2 per hour**, while noting that actual emissions vary by device, network, resolution and electricity mix. EESI reports that large data centres can consume up to **5 million gallons of water per day**, with U.S. data centres estimated at **449 million gallons/day** and **163.7 billion gallons/year** as of 2021. (ieaieaeesi)

This submission does **not** propose censorship or universal bans. It proposes a balanced, UN-friendly framework: mandatory reporting, pilot demand-management, responsible design, low-carbon streaming defaults, data-centre siting safeguards, water-use disclosure, circular server policies, youth digital-wellbeing protections and a new UNFCCC-level workstream. A **7-hour/day responsible media-use model** is proposed both as a **long-term behavioural direction** and as

a **pilot demand-management scenario**, not as an immediate universal restriction. The rationale is simple: human productive systems already recognise biological limits through typical **7–8 hour workdays**; **digital consumption systems should similarly recognise human cognitive, social and environmental limits.**

ICE&SDGs respectfully requests that this theme be included in the Belém Mission to 1.5 synthesis, consultations and final report ahead of COP31. ICE&SDGs is ready to collaborate with UNFCCC and related bodies, or lead this initiative under UNFCCC leadership.

1. Context and Problem Definition

Historically, media consumption in many countries was time-bound: news, family entertainment and films were often concentrated in evening television windows. Today, the system has shifted to **24-hour availability**, autoplay, algorithmic recommendation, infinite scrolling, binge streaming, social feeds, push notifications and short-video loops. This has transformed media from scheduled entertainment into a continuous attention-extraction economy.

The issue is not media itself. Journalism, cinema, television, music, documentary and social communication can educate, inspire and mobilise society. The issue is **unregulated always-on digital engagement**, where private profit is maximised by increasing time-on-platform while many social, health, environmental and climate costs remain externalised.

This sector should be recognised as climate-relevant for four reasons:

1. **Direct digital infrastructure impacts** — data centres, networks, devices, cloud services and content delivery.
2. **Production impacts** — film sets, studios, transport, generators, travel, catering, costumes, materials and waste.
3. **Behavioural impacts** — advertising-driven consumption, impulse buying, consumerism and status signalling.
4. **Societal resilience impacts** — attention, mental health, sleep, family cohesion and capacity to respond to climate risk.

DataReportal reports that the internet now reaches more people than conventional linear TV, with **5.56 billion internet users** compared with **5.32 billion** people watching linear TV formats. It also notes that **92% of internet users watch some form of streaming TV each month**, while linear TV still accounts for a majority of total TV time globally. (datareportal)

2. Quantitative Analysis: Scale, Emissions and Water

2.1 Global and India usage scale

Using the cited global averages:

Indicator	Current estimate	Source basis
Global internet users	**5.56B**	DataReportal 2025 (datareportal)

Indicator	Current estimate	Source basis
Global social media user identities	**5.24B**	DataReportal 2025
Avg daily online time	**6h 38m**	DataReportal 2025
Avg daily TV time	**3h 13m**	DataReportal 2025
Combined online + TV exposure	**~9h 51m/day**	Derived from DataReportal averages
Eg: Scenario of a Country- INDIA	*(such scenarios can be developed for each country – UNFCCC member countries)*	
India internet users	**806M**	DataReportal India 2025
India social media identities	**491M**	DataReportal India 2025

Illustrative global exposure:

- 5.56B internet users × 6.63 hours/day ≈ **36.9 billion online hours/day**.
- 5.56B users × 3.22 TV hours/day ≈ **17.9 billion TV/streaming hours/day**.
- Combined, this indicates roughly **54–55 billion connected media hours/day** globally, depending on overlap and methodology.

2.2 Streaming and digital emissions

The IEA estimates streaming at approximately **36g CO_2/hour** as a corrected central estimate, with device, network, resolution and power mix strongly affecting actual results. If global social-media time is treated as a screening proxy (iea).

- 5.24B social media identities × 2.35 hours/day × 365 × 36g CO_2/hour
  ≈ **160 $MtCO_2e$/year**.

This is **not an official inventory**. It is a screening estimate demonstrating why the sector requires formal measurement.

For India, the uploaded draft used **1.1 trillion smartphone hours/year**, with approximately **70%** associated with social media, gaming and video. Applying the IEA streaming factor to that video-heavy portion:

- 1.1T hours × 70% × 36g CO_2/hour
  ≈ **27–28 $MtCO_2e$/year**.

Again, this is directional and should be replaced by official national and platform-specific inventories once reporting is mandated.

2.3 Data-centre electricity and water

The IEA estimates that data-centre electricity demand was around **415 TWh in 2024** and could reach **945 TWh by 2030** in its base case. It also notes that servers account for around **60%** of electricity demand in modern data centres, while cooling can range from about **7%** in efficient hyperscale data centres to over **30%** in less efficient enterprise data centres. (iea)

Water is equally important. EESI reports:

- Large data centres can consume up to **5 million gallons/day**. (eesi)
- A medium-sized data centre can consume around **110 million gallons/year** for cooling. (eesi)
- U.S. data centres were estimated to consume **449 million gallons/day** and **163.7 billion gallons/year** as of 2021. (eesi)
- A 2016 report found fewer than one-third of data-centre operators tracked water consumption. (eesi)

These figures support mandatory water reporting, site-level WUE disclosure and restrictions in water-stressed regions.

3. What's The Solution & How UNFCCC Can Play Key Role, Globally?

Global Institute for Circular Economy and SDGs (ICE&SDGs) (refer - Global Institute for Circular Economy and Sustainable Development Goals (ICE&SDGs) | One Planet network and www.ce-sdg.org) proposes that, as part of a global policy framework under UNFCCC and supported by all United Nations bodies, television, OTT platforms, and media services should progressively align their operations within a maximum of 7–8 hours per day, similar to standard working hours across offices, jobs, and formal employment worldwide; which actually is the capacity of any human being to absorb the content or watch streaming without harming their mental and physical health. This approach is positioned as a pro-humanity and climate-aligned framework, recognizing that human productivity, cognitive capacity, and wellbeing are naturally structured around limited daily engagement. By encouraging such alignment through coordinated international support, this framework can play a critical role in improving mental health, enhancing societal wellbeing, and significantly reducing energy consumption and emissions, thereby contributing meaningfully to global efforts to combat climate change.

3.1. Current v/s 7-Hour/Day Scenario

ICE&SDGs suggest that globally TV, OTT and Media shall operate for max 7-8 hours per day, as it happens for any office, job or employment.

The 7-hour/day model should be framed in two ways:

1. **Long-term behavioural and sustainability direction:** digital entertainment and non-essential social-media use should align with human cognitive limits, family life, sleep, education and ecological constraints.

2. **Pilot demand-management scenario:** governments may test voluntary or regulated time-window pilots during grid stress, youth-protection programmes, public-health campaigns or low-carbon digital trials.

Current combined online plus TV exposure is approximately **9h 51m/day** using DataReportal's global averages. A 7-hour benchmark would represent an approximate **29% reduction in exposure time**. Because emissions are not perfectly linear with usage, this paper models a cautious **25–35% reduction in usage-linked emissions and future capacity growth**, not a direct 100% proportional reduction across corporate footprints.datareportal

Scenario	Current	7-hour scenario	Indicative reduction
Combined daily exposure	*~9.85 hrs/day*	*7 hrs/day*	*~29%*
Global social/video screening emissions	*~160 $MtCO_2e$/year*	*~104–120 $MtCO_2e$/year*	*~40–56 $MtCO_2e$/year*
India video-heavy smartphone screening emissions	*~28 $MtCO_2e$/year*	*~18–21 $MtCO_2e$/year*	*~7–10 $MtCO_2e$/year*

This model is recommended as a policy pilot and behavioural benchmark, not as an immediate global legal cap.

4. Entity Comparison: Directional Scenario Modelling

The following figures are scenario-based and not exact claims. It is developed to provide few real-time examples, and to showcase the impact figures.

For Netflix, Meta and Disney, public disclosures provide emissions anchors. For Yash Raj Films and Dharma Productions, I did not find comprehensive public GHG inventories; therefore, production-level averages from the Sustainable Production Alliance are used for directional modelling. SPA reports that tentpole films average **3,370 tCO_2e**, large films **1,081 tCO_2e**, medium films **769 tCO_2e**, and small films **391 tCO_2e**; fuel is the largest emissions source for film productions. (greenproductionguide)

Table- Example: A Bollywood, Hollywood, Streaming Platform and Social Media Platform

Entity	Public/disclosure basis	Directional current emissions	7-hour scenario interpretation
Yash Raj Films /	No public company-wide GHG inventory found; Dharma has	Modelled: a portfolio of 5–10	If demand-management reduces

Entity	Public/disclosure basis	Directional current emissions	7-hour scenario interpretation
Dharma Productions	public CSR policy and official company material, but not verified emissions totals (dharma-production+1)	medium/large films could represent **~4,000–15,000 tCO_2e/year** in production-related emissions, depending on scale, travel and generator use.	volume pressure, marketing intensity and energy use, relevant emissions could fall **10–30%**, but only if paired with clean power, EV fleets and production accounting.
Disney-type Hollywood studio	Disney reports FY2024 Scope 1 emissions of **921,163 tCO_2e**, market-based Scope 2 of **572,653 tCO_2e**, and FY2023 Scope 3 of **10.85 $MtCO_2e$**; FY2024 Scope 3 was listed as in progress. (thewaltdisneycompany)	Enterprise footprint is much broader than film/streaming. Scope 1+2 market-based FY2024 ≈ **1.49 $MtCO_2e$**; FY2023 Scope 3 ≈ **10.85 $MtCO_2e$**.	A 7-hour scenario would not reduce parks/cruise/consumer-products emissions directly; it may reduce streaming and content-demand-linked emissions. Relevant segment reduction could be **5–20%**, requiring segmentation.
Netflix	Netflix reports 2024 market-based total emissions of **1,037,226 tCO_2e**, and states streaming was **4%** of all-scopes emissions by business activity. (q4cdn)	Reported total ≈ **1.04 $MtCO_2e$**; streaming-attributed reported share ≈ **~41,000 tCO_2e**.	If streaming-related use falls ~29%, reported streaming segment may reduce by **~12,000 tCO_2e**, but wider device/network use-phase emissions are largely outside Netflix's footprint boundary (q4cdn)
Meta	Meta reports 2023 market-based net emissions of **7.44 $MtCO_2e$**, location-based total emissions of **14.07 $MtCO_2e$**, and **15.33 million MWh** electricity consumption. (atmeta)	Reported market-based net ≈ **7.44 $MtCO_2e$**; location-based ≈ **14.07 $MtCO_2e$**.	Usage reduction may reduce data traffic and future capacity growth, but infrastructure baseload and Scope 3 capital goods mean footprint reduction is not linear. Demand-linked reduction could be **10–25%** over time if

Entity	Public/disclosure basis	Directional current emissions	7-hour scenario interpretation
			paired with capacity discipline.

5. Qualitative and Societal Impacts

The 24-hour media model competes continuously for human attention. Algorithmic feeds, autoplay, push notifications, infinite scroll and emotionally charged content can increase time-on-platform. These systems often profit from engagement intensity rather than wellbeing, and they can reshape habits, relationships and consumption aspirations.

WHO reported that problematic social media use among adolescents rose from **7% in 2018** to **11% in 2022**, while **12%** of adolescents were at risk of problematic gaming; the study covered almost **280,000** young people across 44 countries and regions. WHO also reported associations between problematic social media use and lower mental and social well-being, less sleep, later bedtimes, anxiety, depression, bullying and poor academic performance. (WHO)

The climate impact is not only direct electricity use. Media and social platforms amplify advertising-driven demand. DataReportal reports that global advertising spend was close to **US$1.1 trillion** in 2024, and digital channels accounted for **72.7%** of worldwide ad investment. This makes digital media a powerful driver of consumption across fashion, electronics, travel, food delivery, cosmetics, gaming and lifestyle sectors. (datareportal)

6. High-Impact Barriers

1. **Sector invisibility:** Media, OTT, film, digital advertising and social platforms are not treated as a coherent climate sector in NDC/ NAP implementation.
2. **Weak accounting:** Emissions from production, streaming, cloud, devices, advertising technology and content delivery are fragmented.
3. **Water invisibility:** Data-centre water use and indirect water from electricity generation are underreported.
4. **Market concentration and platform dependence:** A small group of large platforms command billions of users and significant advertising attention, but exact dominance claims should be made only with jurisdiction-specific evidence. (datareportal)
5. **Addictive design:** Engagement-maximising design increases screen time and behavioural dependency.
6. **Infrastructure expansion:** Data-centre electricity demand is projected to more than double by 2030.iea

7. **Limited production data:** Film and TV production emissions data exist but are not yet universal; BAFTA albert notes self-reported and unaudited data challenges in production carbon accounting. (baftaalbert)
8. **Lack of Policies,** thus lack of action to combat climate change.
9. **Lack of impactful action** by highly influential sector - Media, Films, OTT and Social media platform- specially in developing and least developed nations, including USA kind of countries where political challenges emerged (and various bans implemented, without proving/ providing enough reason for climate change denial).
10. **Lack of incentive and standard mechanisms** to reduce carbon emissions from Media, Films, OTT and Social media platform sector.

7. Policy Framework

ICE&SDGs proposes the following global actions as a structured pathway to drive meaningful and measurable change within the media, OTT, film, and social media sector. These actions are designed to support climate mitigation, resource efficiency, and societal wellbeing, while remaining practical and scalable across different national contexts.

As an illustrative example, a focused "zoom-in" (provided below) perspective for all countries is also considered, demonstrating how such action-oriented policies can be formulated and implemented effectively at the country level. This model can then be adapted and adopted by all UNFCCC member countries, enabling coordinated global action and ensuring that this highly influential sector contributes constructively to achieving climate goals and supporting NDC and NAP implementation.

A. UNFCCC / International Level

1. Establish a **UNFCCC Media, OTT, Social Media and Digital Climate Impact Workstream**.
2. Develop global guidance on **digital media GHG and water reporting**.
3. Create a model **Digital Media and Climate Accountability Framework** for Parties.
4. Integrate digital media infrastructure into NDC/NAP implementation guidance.
5. Develop a **Climate Responsible Media Compact** for platforms, studios, broadcasters, advertisers and data-centre operators.
6. Support an international knowledge product ahead of COP31 covering emissions accounting, water risk, youth wellbeing, responsible design, content production, advertising and climate mobilisation.

B. National Government Level (Zoom-in Perspective for All Countries)

Countries should consider a **Digital Media Climate Accountability Act** requiring:

- annual GHG emissions reporting by large media, OTT, social-media, gaming and advertising companies;

- annual water withdrawal, water consumption and WUE disclosure by data-centre operators;
- mandatory PUE/WUE reporting and third-party assurance;
- restrictions on new data centres in water-stressed drinking-water catchments unless zero/low-water cooling and non-potable water use are demonstrated;
- renewable electricity procurement and 24/7 clean-energy transition plans;
- circular server and electronics rules covering repair, reuse, refurbishment and recycling;
- carbon-intensity labelling for streaming quality, device type and resolution;
- youth digital-wellbeing rules, including age-appropriate limits, default safety settings and anti-addictive design standards.

C. Corporate Obligations

Large companies should be required to:

- disclose Scope 1, 2 and relevant Scope 3 emissions;
- disclose streaming and content-delivery energy intensity;
- publish water-risk and data-centre siting assessments;
- reduce autoplay, infinite scroll and manipulative notification design, especially for minors;
- offer default low-carbon streaming modes;
- use clean mobile power, EV fleets and grid connections on production sets;
- adopt production carbon calculators and supplier-level reporting.

D. Economic Instruments

1. **Incentives:** tax credits, green loans and public procurement preference for low-carbon studios, green data centres and sustainable production.
2. **Penalties:** surcharges for non-disclosure, high water intensity, siting in water-stressed areas and non-compliance with youth safety rules.
3. **2% Climate and Digital Wellbeing Contribution:** profitable large media, OTT, social-media, film and ad-tech companies should contribute up to **2% of profits** to climate action and digital wellbeing, implemented through independent expert organisations rather than self-branded foundations. Dharma's CSR policy illustrates that Indian corporate law already recognises a 2% net-profit CSR principle for qualifying companies.dharma-production

8. Investment-Enabling Concepts

This initiative can unlock investment in:

- green data centres and low-WUE cooling;

- renewable power and 24/7 clean electricity;
- clean mobile power for film sets;
- low-carbon streaming and video compression;
- AI-enabled digital emissions accounting;
- circular servers and electronics recovery;
- youth digital wellbeing tools;
- climate storytelling and public awareness campaigns;
- NDC/NAP-linked public-private partnerships.

Netflix's 2024 report shows practical decarbonisation levers in production, including clean mobile power, EVs, renewable fuels and 100% renewable electricity matching. Meta reports data-centre PUE (Power Usage Effectiveness) of **1.08**, WUE (Water Usage Effectiveness) of **0.18**, 100% renewable electricity matching and major renewable procurement, showing that technical solutions exist but need wider policy standardisation. (q4cdnatmeta). However, many companies neither ever show such data nor have any equipment's to measure these.

9. Risks and Implementation Challenges

Key risks include corporate resistance, digital-rights concerns, enforcement difficulty, cross-border platform regulation, unequal access impacts, digital-economy dependence, consumer backlash and measurement uncertainty. These can be managed by using pilots, exemptions for education/emergency/public-interest content, transparent metrics, public consultation, child-focused safeguards and phased implementation.

The 7-hour/day model should therefore be introduced through **voluntary standards, public-health campaigns, youth safeguards, low-carbon defaults and grid-stress pilots** before any stronger regulatory pathway is considered.

10. Opportunities and Co-Benefits

The co-benefits are significant:

- reduced electricity demand and avoided data-centre expansion;
- Emission reduction by 30-40%
- reduced water stress;
- lower production emissions;
- healthier digital habits;
- improved youth mental and physical health and sleep;
- better family and social cohesion;
- productivity gains;

- lower advertising-driven overconsumption;
- stronger climate storytelling by influential media actors;
- improved data for NDC/NAP implementation.

BAFTA albert's 2025 report shows that the UK production industry can reduce emissions through travel, energy and materials interventions, including eliminating one in four flights, switching road journeys to EVs, renewable power and replacing diesel in generators. (baftaalbert)

11. Recommendations

1. Include **Media, OTT, social media, Film and Digital Attention Infrastructure** as a high-impact action area in the Belém Mission to 1.5 report.
2. Establish a UNFCCC-level expert workstream.
3. Develop global GHG and water reporting templates for this sector.
4. Require national reporting of large platform and data-centre emissions.
5. Pilot the 7-hour/day responsible media-use framework as a demand-management and wellbeing model.
6. Introduce low-carbon streaming defaults and disable autoplay by default for minors.
7. Restrict data-centre siting in water-stressed regions.
8. Mandate sustainable production accounting for film and TV.
9. Create a 2% climate and digital wellbeing contribution mechanism.
10. Use media, OTT, film and creators as a global climate mobilisation force.

12. International Cooperation Proposal

ICE&SDGs proposes that UNFCCC convene Parties, platforms, broadcasters, OTT companies, film bodies, advertisers, data-centre operators, health experts, youth representatives, investors and civil society to develop:

- a global evidence base;
- sectoral reporting templates;
- model policy instruments;
- pilot-country frameworks;
- a responsible digital wellbeing standard;
- a COP31 knowledge product;
- a Climate Responsible Media Compact.

ICE&SDGs is willing to collaborate with or lead this initiative under UNFCCC leadership as a serious solution innovator, policy researcher and contributor to NDC/NAP implementation.

Closing Statement

ICE&SDGs understands that the Belém Mission to 1.5 will culminate in a report ahead of COP31 identifying high-impact opportunities, barriers and actionable solutions to keep 1.5°C within reach and strengthen adaptation and resilience. This submission respectfully requests that **Media, OTT, Social Media, Film and Digital Attention Infrastructure** be included in the Belém Mission synthesis, consultations and final report. (unfccc)

This initiative can add high value globally because this sector is simultaneously a source of emissions, water demand, infrastructure growth, behavioural influence and climate mobilisation potential. If advised, ICE&SDGs is ready to collaborate with Mission Belem 1.5" or lead this initiative under UNFCCC leadership.

Contact Details

URL: www.krystahl.in I www.krystahl.com I www.ce-sdg.org
EMAIL: GreenX@krystahl.in I Connect@ce-sdg.org I krystahl007@gmail.com

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