

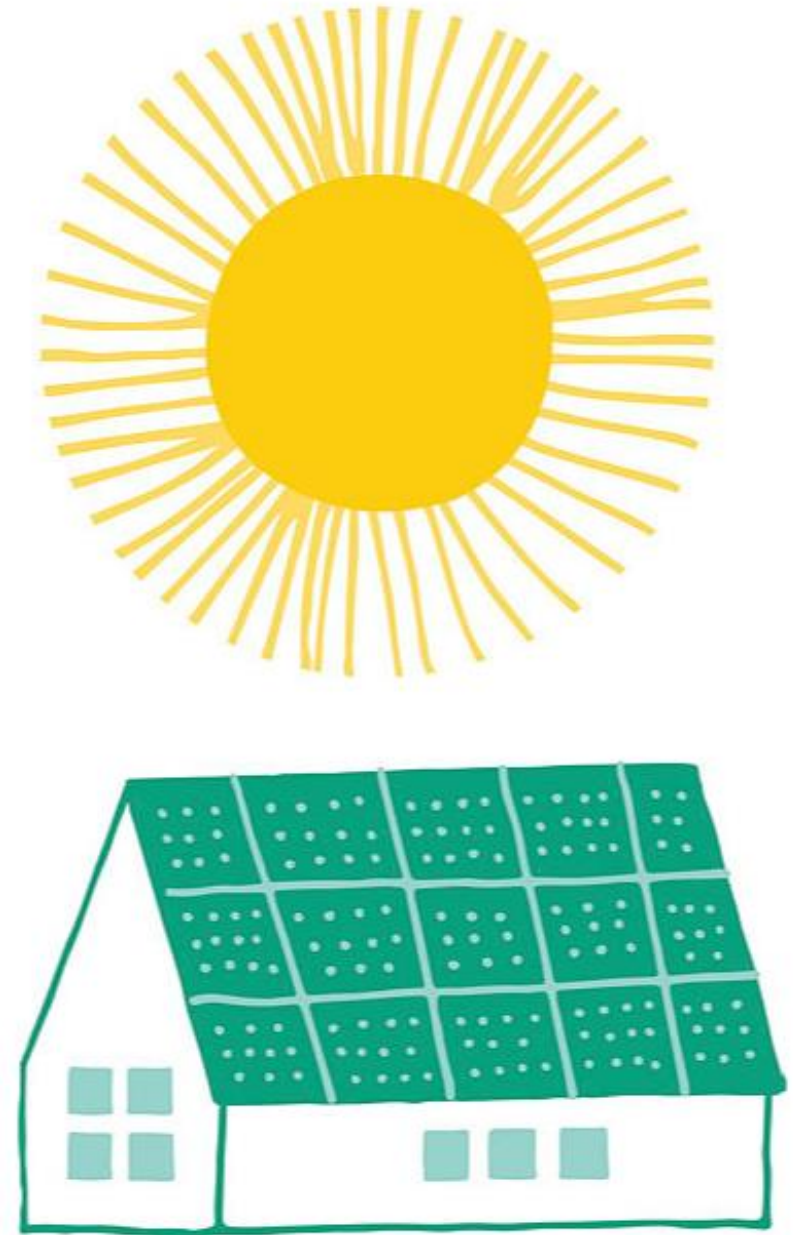
Hur hållbar är solkraften?

Solens fläckar: Om mänskliga rättigheter i solpanelens leverantörskedja



Varför intresserar detta Svenska kyrkan?

- ❖ Svenska kyrkan
 - ❖ 4e/5e största land-/skogsägare
 - ❖ 20,000+ tak (av alla typer)
 - ❖ Investerare
- ❖ En målsättning: Öka egen årlig produktion så den motsvarar förbrukning
- ❖ Värderingar
- ❖ En position: Klimaträttvisa/Rättvis omställning



Vad jag kommer prata om och inte (samt varför)

Y Konventionella kiselbaserade paneler

Brister gällande mänskliga rättigheter uppströms – kvartsit, kiselmetall (MGS) och solgradig kisel

Y

YN Göt (ingot), oblat (wafer), celler & moduler

N Tunnfilmspaneler

N Miljö-, klimat,- och monteringsaspekter



Var ligger de störst riskerna för brott mot mänskliga rättigheter?

❑ **Uppströms (RÖD)** = Höga direkt risk
(*orsaka/bidra till*)

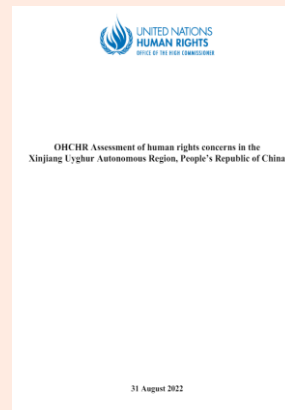
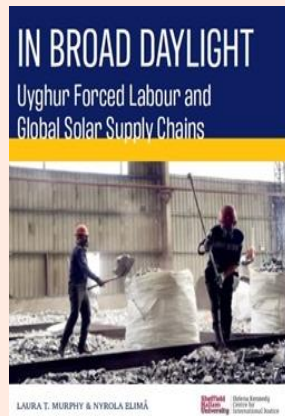
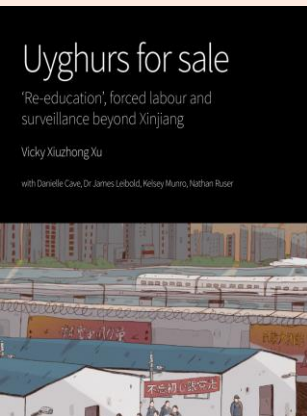
❑ **"Nedströms" (GUL)** = Lägre direkt risk, men genom beroendeförhållanden ändå stor risk (*bidra till/kopplad till*)

THE SOLAR SUPPLY CHAIN

1. **quartz** rock that meets specific purity and physical property specifications (also known as quartzite) is mined from the earth;
2. quartz is chemically reacted with carbon sources to produce **metallurgical grade silicon (MGS)** in electric arc furnaces;
3. MGS is converted to **polysilicon** through a series of chemical reactions and purifications;
4. polysilicon is placed in high purity quartz crucibles and melted, and long cylindrical single crystal silicon **ingots** are "pulled" from the melt;
5. ingots are squared and then sliced into very thin **wafers** with diamond wire saws;
6. individual solar **cells** are produced from wafers via a complex series of automated chemical and physical processes; and
7. individual cells are assembled into solar **modules**.

Vad är problemet?

- Australian Strategic Policy Institute (ASPI) rapport – Mars 2020 (generell)
- Sheffield Hallam Universitet rapport – Maj 2021 (solceller)
- Svenska upphandlare rapport – December 2021 (it)
- FN-rapport - Augusti 2022 (generell)



“Serious human rights violations have been committed in XUAR in the context of the Government’s application of counter-terrorism and counter-“extremism” strategies.”

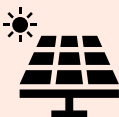
31/8.2022 – FN:s högkommissarie för mänskliga rättigheter (OHCHR)

Bakgrund och högriskindustrier

- Kinas **arbetsprogram**: minska fattigdom, industriell dominans, terrorbekämpning.
- **“Incitament”**: Alla företag i Xinjiang tvingas delta.
- **Subventioner** till företag som flyttar produktion till Xinjiang.
- Företag med **verksamhet i Xinjiang** är högst sannolikt direkt involverade i tvångsarbete.
- Företag som **köper produkter från Xinjiang** bidrar sannolikt till tvångsarbete

Högriskindustrier (bl.a):

Industrier inom den förnybara sektorn



Bomull/Textil

Utvinning av råmaterial



It/tech

Fordon

Jordbruk (insatsvaror och produkter)



Bygg/konstruktion

‘Italian’ purees in UK supermarkets likely to contain Chinese forced-labour tomatoes

2 days ago

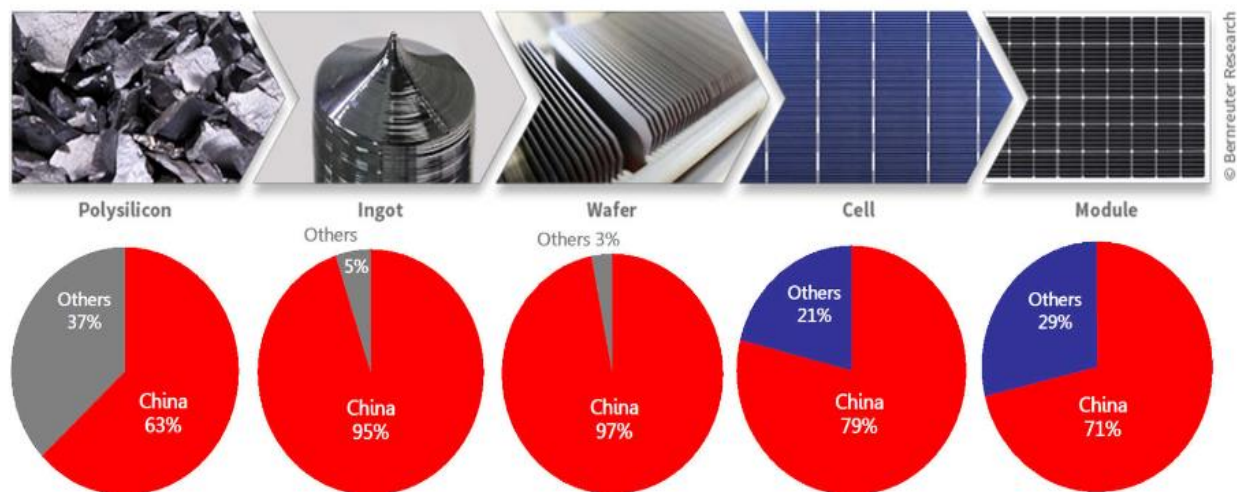
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Mike Rudin & Sarah Buckley
BBC Eye Investigations

Beroenden i leverantörskedjan

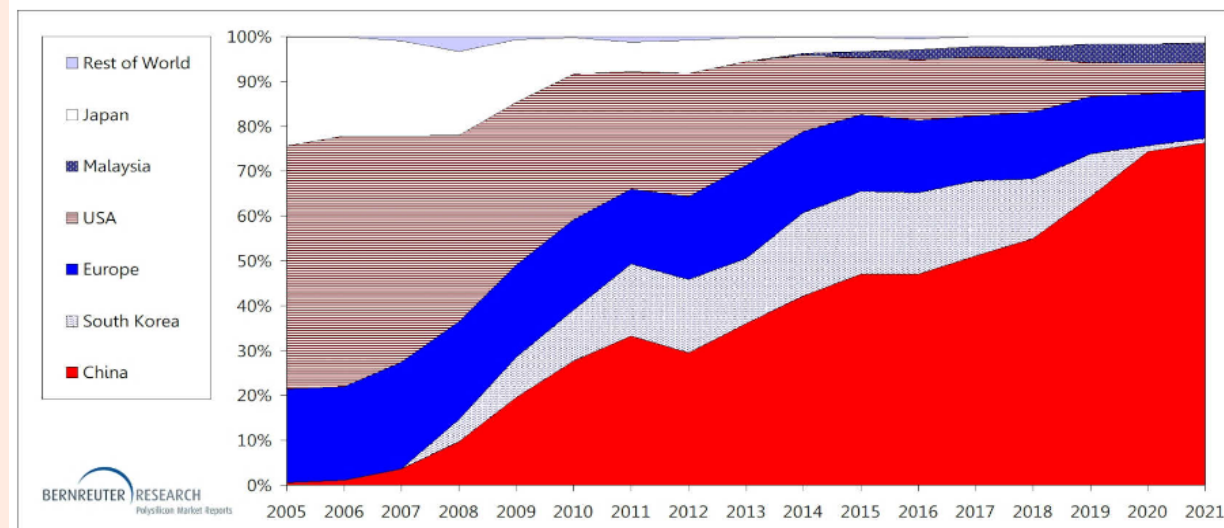
- ❑ Kinesiska statens industristrategi för solceller har skapat en marknadsdominans och stora beroenden i leverantörsleden.
- ❑ Det är genom dessa beroenden som MR-riskerna skapas, genom kopplingen till utvinning och första förädling i Xinjiang.

China's share in production volumes along the solar value chain in 2019



China more or less dominates the solar value chain from polysilicon to panels – Sources: Bernreuter Research (polysilicon), Bloomberg New Energy Finance (ingot), China Photovoltaic Industry Association (wafer/cell/module); Graphic: Bernreuter Research

Market shares in global polysilicon production volume from 2005 through 2021



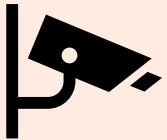
Since China introduced duties on polysilicon imports in 2013, its share in the global polysilicon production volume has increased strongly from one third to over 75% – Source/Chart: Bernreuter Research

Den ”anställdes” perspektiv



Statsstyrda metoder i Xinjiang

- Obligatoriskt arbete i stängda läger
- Statliga aktörer som pressar uigurer att anmäla sig till arbetsprogram
- Expropriering av mark som möjliggör statlig inskrivning av arbetslösa
- Arbetsplikt i jordbruket
- Arbete presenteras som ideologisk träning



Exempel på hur tvångsarbete kan se ut i och utanför Xinjiang (i linje med ILOs definition)

- Begränsad rörelsefrihet
- Oklara kontrakt/omöjligt att återvända hem på egen begäran
- Vedergällning efter klagomål
- Segregerad och övervakad logi
- Innehållande av identitetshandlingar
- Arbetskontrakt signeras mellan företag och bemanningsföretag
- Löneavdrag utan angivna skäl och uteblivna lönebetalningar



Källor: Soim <https://shahit.biz/eng/> och Sheffield Hallam Universitetets rapporter:
<https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/evidence-briefs>

Social revision/tillbörlig aktsamhet/due diligence

Standardiserad due diligence går inte att genomföra

- Ej fri tillgång till fabriker/arbetare i Xinjiang
- Revisorer/konsulter som adresserar tvångsarbete kopplat till Xinjiang **riskerar deportering, beslagtagna tillgångar, yrkesförbud**

Revisorer möter (enligt rapporter):

- Desinformation från leverantörer
- Leverantörer vägrar svara
- Hot från statliga aktörer

- Alla trovärdiga revisionsfirmor/konsulter vägrar idag utföra revisioner i Xinjiang, och är i lag förbjudna att närma sig frågan utanför Xinjiang.




Källa: Sheffield Hallam University report: Over-Exposed

Volkswagen's Human Rights Bluff

Volkswagen wanted to prove that its controversial factory in Xinjiang is free of forced labor. But the audit the company ordered to demonstrate that fact is full of methodological shortcomings and was performed by a dubious law firm.

Mediareaktioner 2020-2024

“LIKE WE WERE ENEMIES IN A WAR”
CHINA'S MASS INTERNMENT, TORTURE AND PERSECUTION OF MUSLIMS IN XINJIANG



anti-slavery
Slavery today What we do Our impact Take action

Report exposes solar panel industry Uyghur forced labour links

Our responsible business manager Chloe Cranston explains why, for the solar panel industry, Uyghur forced labour is a serious problem

Revealed: UK solar projects using panels from firms linked to Xinjiang forced labour

Investigation finds up to 40% of UK solar farms were built using panels from leading Chinese companies



30 YEARS OF Business & Human Rights Resource Centre

China: Solar companies reportedly linked to forced labour allegations in Xinjiang

12 Jan 2021
Aria Saeed, Christopher Budding, The New York Times

US bans target Chinese solar panel industry over Xinjiang forced labor concerns

This article is more than 1 year old

Commerce secretary says US is making good on G7 pledge to clean up global supply chains



EU proposes banning products made with forced labour

By Phillip Glenkinsop



BRUSSELS, Sept 14 (Reuters) - The European Commission proposed on Wednesday an EU ban on products made using forced labour with legislation that will add to existing U.S. pressure on China, but will likely

More than 3 GW of solar panels held by US customs under forced labor law

ROTH Capital Partners reports 3 GW have been seized under enforcement of the Uyghur Forced Labor Prevention Act.

AUGUST 16, 2022 RYAN KENNEDY

China's 'Beautiful Xinjiang' Continues to Oppress Uyghurs

As Beijing Tries to Convince the World That the Xinjiang Region Has Moved On, Its Uyghur Residents Continue to Suffer

Published in: Al Jazeera
Maya Wang
Senior China Director and Associate Director
Xwang_maya

Evidence grows of forced labour and slavery in production of solar panels, wind turbines

This article is more than 1 year old

Britain risks becoming dumping ground for 'slave labour' solar panels

Clean energy transition remains complicit in Uyghur genocide, warns Alicia Kearns

Jonathan Leake
31 March 2024 - 7:00am

Lagändringar och industrirespons

- US: Uyghur Forced Labor Prevention Act (UFLPA) juni 2022
- Solar Energies Industry Association (SEIA) löfte – 370 solcells företag februari 2024
- Solar Power Europes Solar Stewardship Initiative (SSI) - standard (kommande december 2024?)
- End Uyghur Forced Labour Statement om SSI, mars 2024
- European Solar Manufacturers Coalition (ESMC) – Position om SSI (april 2024 & oktober 2024)
- EUs direktiv om tvångsarbete april 2024 (plus CS3D juli 2024)

hinrich foundation
advancing sustainable global trade

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February 5, 2024

US-CHINA TRADE
US sets trade policy sights on China's Xinjiang

Henry Storey

SHARE

Published 19 March 2024

As Washington escalates its raft of trade controls against China, the US Uyghur Forced Labor Prevention Act is likely to be a key piece of legislation impelling the momentum. Now more than ever, multinationals may have to be more artful in engineering the separation of their Chinese and non-Chinese business operations – and the origins of their parts.



Solar Industry Forced Labor Prevention Pledge

We, the undersigned companies and organizations, state our firm opposition to the use of forced labor within the solar supply chain. We hereby commit to helping ensure that the solar supply chain is free of forced labor and raising awareness within the industry on this important issue. To assist in these efforts, we support the development of an industry-led solar supply chain traceability protocol as a tool for identifying the source of primary raw materials and inputs and tracking their incorporation into finished products, including solar modules.

More than 370 companies have signed this Pledge:

- | | |
|-------------------------------------|----------------------------|
| 8minute Solar Energy | ArcVera Renewables |
| 8MSolar, LLC | Artisan Electric, Inc. |
| AC Power, LLC | Aten Solar |
| Acciona Energy | Aurora Solar Inc |
| Active Solar Development, LLC | Autonomous Energies |
| Adapture Renewables, Inc. | Avangrid Renewables |
| Aegis Renewable Energy | AVEVA |
| AES Clean Energy | Aztec Solar Inc. |
| Affordable Solar age inc. | Azurent |
| AIONRISE | BayWa r.e. US |
| Alchemy Renewable Energy | Belltown Power Texas |
| Aligned Climate Capital | Best Energy Power |
| Alion Energy | Better Builder |
| Allterra Environmental, Inc. | Birdseye Renewable Energy |
| AlsoEnergy, LLC | Black & Veatch Corporation |
| Alternative Energy Southeast, Inc. | Blattner Energy, Inc. |
| Ameresco | Blue Ridge Power |
| American Design & Build, Ltd. | Bluestem Energy Solutions |
| American Ground Screw | BlueWave Solar |
| American Microgrid Solutions | Boralux |
| American Solar Energy Society, Inc. | Borrego Solar Systems |
| | Boviet Solar |

End Uyghur Forced Labour

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Solar Stewardship Initiative Fails to Address Solar Industry Reliance on Uyghur Forced Labour

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Commission 2019-24 An Economy that Works for People Regulation on prohibiting products made with forced labour on the Union market

Regulation on prohibiting products made with forced labour on the Union market

In "An Economy that Works for People"

Actions

20/04/2024 Latest changes PDF VERSION

SOLAR STEWARDSHIP INITIATIVE

JOIN US SSI STANDARDS GET CERTIFIED RESOURCES ABOUT SSI

SUPPLY CHAIN TRACEABILITY STANDARD

Position paper

ESMC does not recommend participation in the Solar Stewardship Initiative

April 22, 2024

The SSI will develop a Supply Chain Traceability Standard to develop further confidence in how, where, and by whom solar products are manufactured.

The Standard is planned to launch in late 2024 after going through public consultation.

Position paper

ESMC does not recommend participation in the Solar Stewardship Initiative

April 22, 2024

Trender

- Offentliga och privata upphandlare mer aktiva/kunniga
- Återförsäljare allt mer medvetna/kunniga
- Tudelning (bifurcation): Producenter erbjuder paneler med olika bakgrund
- Producenter flyttar sin produktion av paneler
- Spårbarhet och revision omöjligt gällande tvångsarbete
- Transparensen allt lägre
- USA och Indien vill konkurrera men Europa halkar efter
- Icke-konventionella paneler (ej kiselbaserade) är inte problemfria

Solar Company Says Audit Finds Forced Labor in Malaysian Factory

The company, First Solar, said an independent review had found that subcontractors used unethical recruitment tactics and withheld pay from workers.

NY Times & Reuters Aug, 2023

July 2023
Updated: November 2023

OVER-EXPOSED:

Uyghur Region Exposure
Assessment for Solar
Industry Sourcing

Alan Crawford, Laura T. Murphy,
and a team of anonymous researchers

 Sheffield Hallam University | Helena Kennedy
Centre for International Justice



Källa: Over-Exposed, Sheffield Hallam Uni rapport - Juli 2023

Svenska kyrkans upphandling

1. Beslut att utreda människorättsliga överträdelser pga rapporter (2021)
2. Externremiss till urval av återförsäljare för att bedöma nivån på kännedom, engagemang i frågan och transparens (2022)
3. Inhämtning av synpunkter kring vad som skulle handlas upp (2022/2023)
4. Upphandling (2023) med kravnivåer kring hållbarhet (bla.)
5. Urvalsbeslut leverantörer/återförsäljare (2023)
6. Avtal (2023/2024)
7. Avtalsstart (2024)

Valmöjligheter för Svenska kyrkan

- Endast alternativa icke kiselbaserade paneler, tex tunnfilm?
- Köpa endast icke Kina-baserade paneler utan Kinabaserade komponenter/råvaror?
- Köpa "garanterade tvångsarbetsfria" paneler med kinesiskt ursprung (bifurcated)?
- Vind istället?



Adressera det oadresserbara

Valet – (tillsvidare)

- Vi insåg att vi inte kommer kunna få garantier eller full spårbarhet
- Tills det är FULL transparens i leverantörsleden och revisorer är tillåtna att verka, så försöker vi begränsa risken genom att minimera XUAR/kinesisk koppling:
 - Säkerställa att ramavtalsleverantörer följer bästa möjliga standard gällande mänskliga rättigheter.
 - Säkerställa att dessa kan erbjuda "garanterat" tvångsarbetsfria paneler
 - Säkerställa att de också kan erbjuda ett "kina-minimerat" alternativ
 - Också ha avtal på tunnfilmssolceller
- I tillägg: Ramavtalsleverantörer måste erbjuda (minst) två alternativ i offerter, där ett måste vara den vid varje tidpunkt bästa panelen sett utifrån ett människorättsperspektiv, som finns på marknaden.
- En kyrkans enhet får då alltid möjligheten att välja mellan det bästa, det förhoppningsvis inte för dåliga och slipper stå med det sämsta som enda val.
- Göra avtalsuppföljning våren 2025 på de val som gjorts lokalt

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- Sheffield Hallam University: <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/over-exposed> Crawford, A. and Murphy, L. T. (2023), "Over-Exposed: Uyghur Region Exposure Assessment for Solar Industry Sourcing," Sheffield, UK: Sheffield Hallam University Helena Kennedy Centre for International Justice & Murphy, L & Elimä, N (2021), *In Broad Daylight: Uyghur Forced Labour and Global Solar Supply Chains*, Sheffield Hallam University Helena Kennedy Centre for International Justice. Available from: <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/in-broad-daylight>
- End Uyghur Forced Labour: <https://enduyghurforcedlabour.org/>
- ESMC: <https://esmc.solar/social-sustainability/>
- Walk free: <https://www.walkfree.org/global-slavery-index/findings/spotlights/examining-state-imposed-forced-labour/>
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- Business and human rights resource centre: <https://www.business-humanrights.org/en/>