

# A bibliometric method for linking scientific publications to the Sustainable Development Goals

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## Abstract

Publications related to Sustainable Development (SD) at KTH have for several years been assessed bibliometrically via keywords indicating sustainability. Now, an alternative method has been developed that connects publications to the global Sustainable Development Goals (SDGs). Keyword lists from a method earlier described by Elsevier (2018) was modified to cover more research articles, and a test sample of the hits were verified for relevance. Data was collected from the Web of Science for the time period 2011 and 2018. Most of the SDG:s have an increasing number of hits over the period, which indicates that more research are being performed addressing the SDG:s at KTH. An evaluation of the method showed that most publications identified are indeed relevant, but that the method does not identify all relevant publications. However, the method is useful to follow up the development over years and for identifying research related to SD at different parts of the university, which in turn can be used for both research communication, monitoring and benchmarking.

## Introduction

In 2015, the United Nations (UN) launched *The 2030 Agenda for Sustainable Development*, which aims to address a series of global environmental, societal, and economic issues. The Agenda includes seventeen Sustainable Development Goals (SDGs) which are further divided into a number of targets. In order to comprehensively understand KTH's research activities in relation to the SDGs, it is of interest to identify KTH's publications concerning sustainable development and map them to different SDGs. A bibliometric analysis is also of relevance for monitoring of KTH's sustainability goals for research.

Mapping scientific publications to the SDGs is of interest also for other stakeholders. One example is Times Higher Education's (THE's) Impact ranking based on the SDGs. This ranking is partly based on bibliometric data which is provided by Elsevier. Also other universities are developing methods and some have published their results (Körffgen et al, 2018).

## Method

KTH's publications which are indexed in the Web of Science (WoS) database between 2011 and 2018 were collected. The focus is therefore publications that are published in peer-reviewed, well-established, international journals. These publications and their bibliographic information were extracted from the KTH publication database DiVA.

For each SDG, a list of query terms have to be developed to identify SDG relevant publications. Building query terms is an important step in accurately identifying sustainability related publications. However, it is rather challenging and difficult since the description of several goals in the UN report are rather general. The starting point was two query lists proposed from previous studies; one is based on an Austrian group (Körffgen et al, 2018) and the other is the Elsevier report (the analyses of Colombia's research on the SDGs, released in 2018 (Elsevier Analytical Services, 2018)). These two lists were used in a test in which publications in relation to SDG 2 (Zero hunger) and SDG 11 (Sustainable cities and communities) were identified. The search was made in the title, abstract and keywords for the publications. Our comparison showed that query terms of SDG 2 and SDG 11 from the Austrian method hit a quite broad scope of publications. It identified a number of publications that did not

seem relevant for the SDGs. On the other hand, since the Elsevier method has the restriction that the truncated term of “sustainable” (i.e. “sustainab\*”) must be used as well in titles, keywords, or abstracts of publications, this may cause a high risk of omitting relevant publications without having “sustainab\*” in the above-mentioned items. This was also illustrated by the observation that the Austrian method did identify some publications that seemed relevant which were not identified by the Elsevier method.

Taking the shortcomings of both methods into consideration, we therefore have modified the Elsevier’s searching method. In doing this, keywords from the method used by Körfggen et al (2018) were considered. If a query term has a strong implication for sustainable development, it would be used to retrieve publications without a combination with the term “sustainab\*”. In choosing which terms to include, consideration was given both to the connection to the SDGs and to the risk of getting too many unrelated publications. The resulting method thus consists of query terms that must be combined with “sustainab\*”, in line with the original method developed by Elsevier, and terms which are sufficient on their own. These terms were applied to titles, keywords, and abstracts of KTH’s publications. The query terms can be found in the Appendix.

With the use of KTH DiVA, school and department information of each KTH publication are available, so publications can also be allocated to departments and schools.

## **Results**

Figure 1 presents KTH publications during 2012-2018 per SDG. SDG 13 (Climate Action) and SDG 7 (Affordable and Clean Energy) have significantly more publications than the other SDG:s, 1040 and 994 publications respectively during the time period. The SDG with the third highest amount of publications is SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) with 375 publications totally during the period. The other SDG:s have numbers of between 12 and 335publications.

Figure 2 and 3 present the results for SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action) for different years. It can be seen that the publications increase over time. For SDG 7 the amount of publications per year increase from 92 publications 2012 to 221 publications 2018. For SDG 13 the figures are 82 and 208 publications for 2012 and 2018 respectively. This is the case also for some other SDGs. For SDGs with a lower total amount of publications, the trend over time is less clear since there are yearly variations.

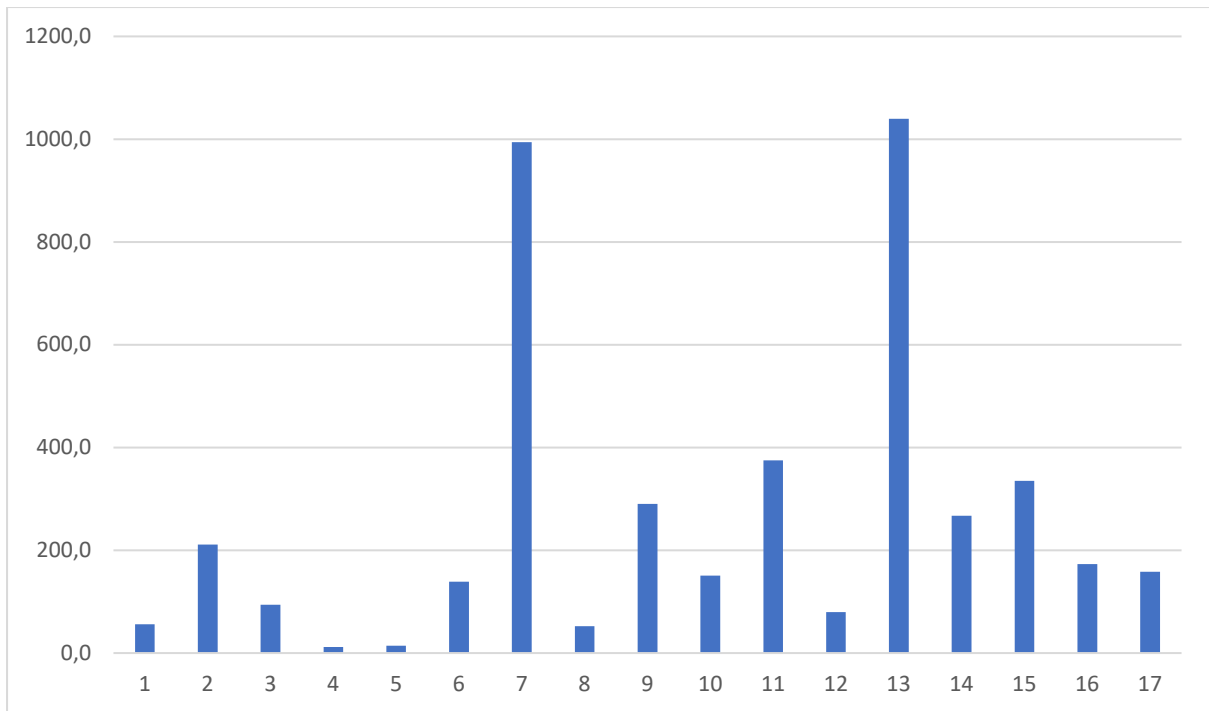


Fig 1. KTH publications per SDG for the time period 2012-2018.

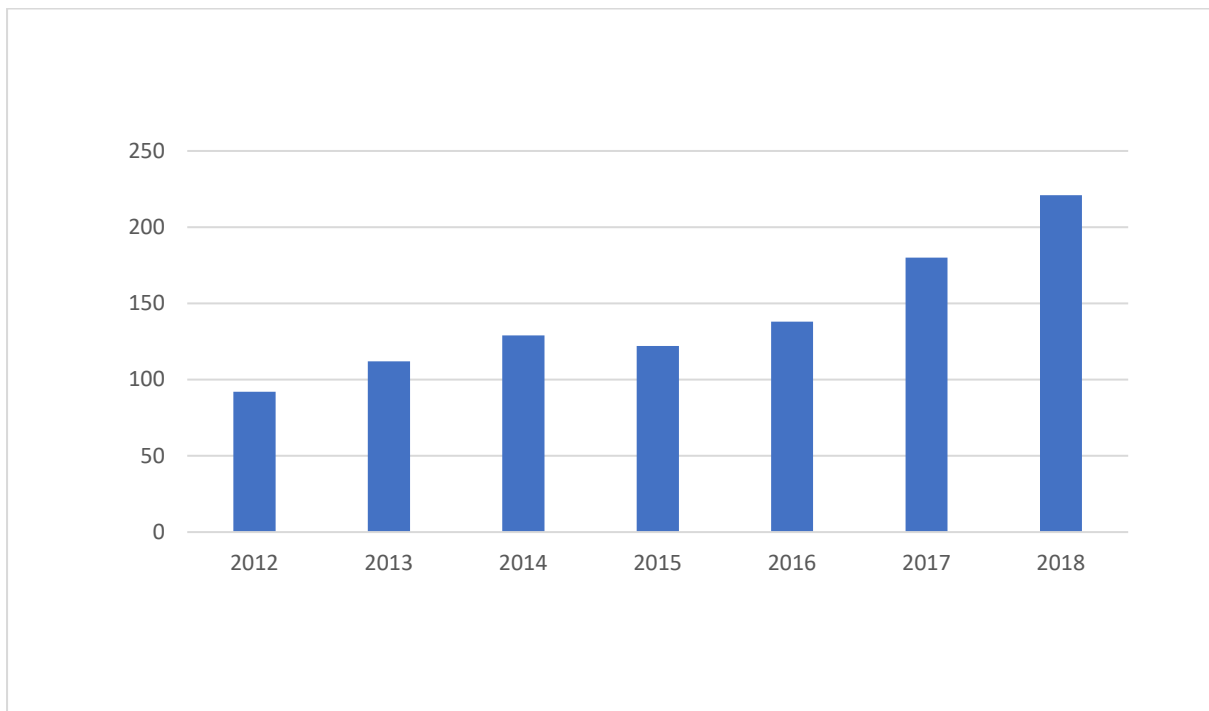


Figure 2. KTH publications for the SDG 7 Affordable and clean energy for the time period 2012-2018.

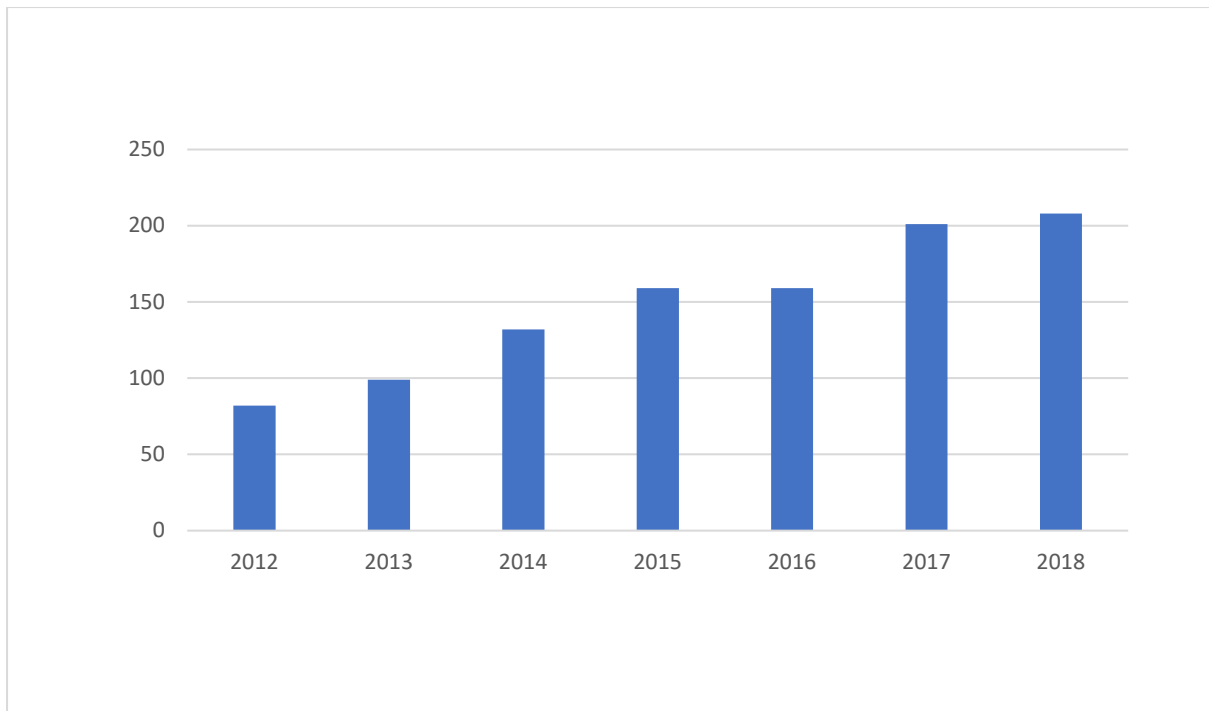


Figure 3. KTH publications for SDG 13 ( Climate Action) for the time period 2012-2018.

The same type of graphs as Figure 2 and 3 have been produced for all SDGs. The same type of graph as Figure 1 has been produced for all departments and are distributed to the departments in connection to the RAE self evaluation. When there are several authors to a publication from different departments, the publication is allocated to the department of the first author. When a paper is relevant for several SDGs, it is noted in all relevant SDGs, but only counted once when the total number of publications are counted.

## Discussion

When developing and using a bibliometric method for identifying scientific publications relevant for sustainable development in general and connected to the SDGs in particular, it must be realized that it is not possible to develop a method that identifies all relevant publications. There will always be publications that would be relevant that are not included. There will also always be publications that are identified which may be less relevant and perhaps should not have been included. When developing a method, the challenge is to find the right balance between the number of publications that should have been included but are not included, and the number of publications that should not have been included, but are included.

In this work, we have strived to be conservative and minimize the number of less relevant publications. We think that with the current method most identified papers are relevant. So, when looking at the total number of publications at the KTH level, the fraction of less relevant papers is small. However, when looking at disaggregated data, for example data for a specific SDG for a specific department, there may be examples where the fraction of less relevant papers is higher, but this will probably only happen for a few cases.

All relevant papers are however not identified. This means that the number of publications is underestimated. The fraction of relevant papers not identified is probably different for different SDGs. It seems less for SDG 7 and SDG 13. However, for SDG 3 (Good health and well-being) and SDG 12 (Responsible consumption and production) there seem to be fewer than expected publications in

Figure 1, suggesting that the fraction of non-identified relevant papers may be higher for these SDGs. The allocation of papers between different SDGs can also sometimes be questioned. For example a paper that seems relevant for SDG 12 is not noted there but in SDG 13.

The database that is used is the WoS. This database does not capture all relevant publications and different scientific areas with different publication traditions are not equally well covered.

As noted above, the method is based on a method developed by Elsevier and used by THE. This means that the original method is relevant for some of KTH's stakeholders and therefore relevant also for KTH.

#### **What can the method be used for?**

This is a new method and it needs to be further tested and evaluated. We believe that it can be used already now for several purposes:

- The method can be used for identifying research relevant for SD and for different SDGs at universities. The method may not capture all relevant groups and projects, but those that are identified will in most cases be relevant.
- It can be used to monitor the development over time.
- It can be used to compare different universities and research groups per SDG, especially if they belong to the same scientific disciplines and publication traditions.
- Care should be taken when drawing conclusions on the most relevant SDGs for a university, since the fraction of non-identified relevant papers will be different for different SDGs.
- Care should be taken in comparing the total number of publications for all SDGs between different universities or research groups if they publish in different scientific traditions and/or do research relevant for different SDGs.

#### **Next steps**

Since this is a new method, feedback is welcome. The results of this method should be compared with our "old" bibliometric method to compare advantages and disadvantages. There are methods developed also at other universities and the results should preferably be compared. There is also an interest from research funders. An abstract has also been submitted to the annual conference of the International Sustainable Campus Network which this year is at EPFL in June. If accepted it will also be an opportunity to get feedback. The method can of course be further refined and developed. For example, some keywords may be less suitable whereas others could be added.

#### **References:**

Elsevier Analytical Services (2018). *Analysis of research related to the sustainable development goals*. Amsterdam, the Netherlands: Elsevier.

Körffgen, A., Förster, K., Glatz, I., Maier, S., Becsi, B., Meyer, A., ... & Stötter, J. (2018). It's a hit! Mapping Austrian research contributions to the Sustainable Development Goals. *Sustainability*, 10 (9), 3295.

United Nations (2015). *Transforming our world: The 2030 agenda for sustainable development*. New York, USA: United Nations.

## Appendix

### Query terms

SDG	Query
1	<p>%sustainab% AND (%absolute poverty lines% OR %additive poverty measures% OR %basic public services% OR %benefit incidence analysis% OR %benefits to poor% OR %commitment to basic income% OR %community-level characteristics associated with poverty% OR %consumer price index% OR %consumption expenditure% OR %consumption of calories% OR %cost of basic needs method% OR %current consumption expenditure deficit% OR %dci method% OR %deflation problem% OR %demographic characteristics associated with poverty% OR %dependency ratio% OR %determinants of poverty% OR %development cooperation on poverty% OR %direct caloric intake method% OR %disaster related economic loss% OR %distributional effect% OR %drinking water and poverty% OR %durable goods% OR %economic characteristics associated with poverty% OR %economic indicators% OR %economic resource% OR %education spending% OR %encuesta de desarrollo social% OR %encuesta sobre el nivel de vida% OR %end poverty% OR %equal rights to economic resources% OR %expenditure progressivity% OR %financ% OR %food energy intake% OR %frameworks for analysing poverty% OR %gender and poverty% OR %gender-sensitive poverty reduction policies% OR %geography and poverty% OR %goods coverage index% OR %growth incidence curve% OR %headcount index ratio% OR %health spending% OR %household and individual level indicators% OR %household budget survey% OR %income security% OR %income shock% OR %inflation as related to poverty% OR %informality% OR %international poverty comparisons% OR %investment in poverty eradication% OR %landownership% OR %landtenure% OR %living standard indicators% OR %living standards measurement study% OR %isms% OR %lorenz curve% OR %losses and damage from disaster% OR %microfinanc% OR %monitoring and evaluation of poverty% OR %participatory poverty assessments% OR %per capita consumption% OR %per household consumption% OR %poverty and empowerment% OR %poverty and innovation% OR %poverty and technology% OR %poverty deficit curve% OR %poverty determinant% OR %poverty gap index% OR %poverty incidence curve% OR %poverty income% OR %poverty resilience% OR %pro-poor% OR %purchasing power parity% OR %reduction of poverty% OR %regressive tax% OR %relative poverty risks% OR %resilience of the po% OR %right to land% OR %rural finance% OR %safety net% OR %sanitation and poverty% OR %small farmer% OR %smallholder% OR %software adept% OR %stochastic poverty% OR %sustainable development goal 1% OR %vulnerability% OR %watts index% OR %watts poverty index%)</p> <p>OR (%causes of poverty% OR %child labour% OR %chronic poverty% OR %development aid% OR %disaster mortality% OR %economically disadvantaged% OR %elasticity of poverty% OR %energy poverty% OR %extreme poverty% OR %food and nutrition% OR %food bank% OR %food consumption% OR %gini coefficient% OR %income equality% OR %income inequality% OR %inequality measures% OR %measurement of poverty% OR %other (measurement of poverty)% OR %multidimensional measurement of poverty% OR %poverty alleviation% OR %poverty income ratio% OR %poverty index% OR %poverty line% OR %poverty profiles% OR %poverty rates% OR %social exclusion% OR %social inequality% OR %social protection% OR %underemployment% OR %unemployment% OR %unmet basic needs% OR %wealth distribution%)</p>
2	<p>%sustainab% AND (%agri% OR %agra% OR %agro% OR %seed% OR %grain% OR %rice% OR %crop% OR %rural% OR %cultiva% OR %peasant% OR %harvest% OR %farm% OR %fertili% OR %pest% OR %irriga% OR %weed% OR %rainfed% OR %livestock% OR %meat% OR %breeding% OR %pastora% OR %polyculture% OR %biosafe% OR %gmo% OR %genetic% OR %gene bank% OR %genic% OR %organic% OR %CGIAR% OR %Doha develop% OR %IBPGR% OR %IUPGR% OR %IFOAM% OR %ITPGR% OR %goal 2% OR %SDG2% OR %anaemia% OR %anemia% OR %hunger% OR %protein% OR %nutrition% OR %weight% OR %metabolic% OR %obesity% OR %vitamin deficien% OR %eating% OR %food% OR %income%food producer% OR %income%pastorali% OR %income%fisher%)</p> <p>OR (%aerobic rice% OR %agrarian change% OR %agribusiness% OR %agricultural abandonment% OR %agricultural biodiversity% OR %agricultural by-product% OR %agricultural change% OR %agricultural development% OR %agricultural drought% OR %agricultural expansion% OR %agricultural extension% OR %agricultural innovation% OR %agricultural intensification% OR %agricultural land% OR %agricultural</p>

	<p>management% OR %agricultural policies% OR %agricultural policy% OR %agricultural practice% OR %agricultural production% OR %agricultural productivity% OR %agricultural residue% OR %agricultural soil% OR %agricultural stream% OR %agricultural subsidies% OR %agricultural sustainability% OR %agricultural system% OR %agricultural technology% OR %agricultural trade% OR %agricultural waste% OR %agricultural-research% OR %agricultural research% OR %agri-environment scheme% OR %agri-environmental measure% OR %agri-environmental policy% OR %agri-environmental scheme% OR %agrobiodiversity% OR %agroecology% OR %agroecosystem% OR %agroforest% OR %agronomic performance% OR %agronomic trait% OR %animal-source food% OR %animal source food% OR %arable crop% OR %arable farmland% OR %bioenergy crop% OR %burn agriculture% OR %catch crop% OR %child hunger% OR %child nutrition% OR %conservation agriculture% OR %conventional agriculture% OR %cover crop% OR %crop biodiversity% OR %crop diversity% OR %crop domestication% OR %crop field% OR %crop improvement% OR %crop management% OR %crop pest% OR %crop pollination% OR %crop production% OR %crop productivity% OR %crop protection% OR %crop residues% OR %crop rotation% OR %crop system management% OR %crop yield% OR %crop-livestock system% OR %cropping system% OR %crop-rotation% OR %crop rotation% OR %cultivated land% OR %cultivated rice% OR %energy crop% OR %farm size% OR %farmer field school% OR %farming practices% OR %farming system% OR %farmland abandonment% OR %farmland biodiversity% OR %farm-management% OR %farm management% OR %farm-scale evaluation% OR %farm scale evaluation% OR %farmyard manure% OR %fermented food% OR %food aid% OR %food availability% OR %food consumption% OR %food crop% OR %food demand% OR %food insecurity% OR %food plant% OR %food policy% OR %food prices% OR %food-prices% OR %food production% OR %food-production% OR %food quality% OR %food resources% OR %food safety% OR %food security% OR %food sovereignty% OR %food supplementation% OR %food supply% OR %food system% OR %food variety% OR %food waste% OR %food-deprivation% OR %food deprivation% OR %genetically-modified crop% OR %genetically modified crop% OR %genetically-modified food% OR %genetically modified food% OR %global food% OR %gm crop% OR %golden rice% OR %golden-rice% OR %grain-yield% OR %grain yield% OR %participatory rural appraisal% OR %persistent organic pollutant% OR %plant genetic-resources% OR %plant genetic resources% OR %rice bran% OR %rice field% OR %rice husk% OR %rice production% OR %rice yield% OR %rice-husk% OR %rice husk% OR %rural development% OR %rural household% OR %rural landscape% OR %rural livelihood% OR %rural poverty% OR %rural-development% OR %rural development% OR %seed size% OR %seed yield% OR %shifting cultivation% OR %smallholder farmer% OR %smallholder irrigation% OR %soil fertility% OR %soil seed bank% OR %staple food crop% OR %sustainable agriculture% OR %swidden cultivation% OR %tolerant crop% OR %transgenic crop% OR %transgenic rice% OR %undernutrition% OR %upland rice% OR %urban agriculture% OR %vegetable crop% OR %wild food plant% OR %healthy food% OR %herbicide-tolerant crop% OR %herbicide tolerant crop% OR %hybrid rice% OR %hyponutrition% OR %intensively farmed landscape% OR %intercropping system% OR %irrigated rice% OR %liquid food% OR %local food% OR %malnutrition% OR %meat consumption% OR %meat quality% OR %multifunctional agriculture% OR %nutrition education% OR %nutrition security% OR %nutrition transition% OR %nutritional assessment% OR %nutritional deficiencies% OR %nutritional quality% OR %nutritional status% OR %nutritional-value% OR %nutritional value% OR %organic agriculture% OR %organic contaminant% OR %organic farming% OR %organic food% OR %organic pollutant% OR %organic pollution% OR %organic waste% OR %paddy rice%)</p>
3	<p>%sustainab% AND (%access to safe medicines% OR %acculturative stress% OR %adjusted life year% OR %adolescent health% OR %affordable medicines% OR %anti-retroviral therapy% OR %anti-school attitudes% OR %antisocial behavior% OR %art education% OR %battered child syndrome% OR %body dissatisfaction% OR %body image% OR %body-ideals% OR %bullying% OR %cancer% OR %chagas% OR %child abuse% OR %child neglect% OR %child and youth well-being index% OR %child death% OR %child rights% OR %child-birth complications% OR %child-parent centers% OR %cholera% OR %civic engagement% OR %civic participation% OR %colonial education% OR %communication rights% OR %convention on the rights of the child% OR %cooperative breeding% OR %coping mechanisms% OR %diabetes% OR %disease% OR %divorce% OR %dysentery% OR %emotional competence% OR %emotional disturbances% OR %ethic of care% OR %eudaimonia% OR %family policy% OR %father involvement% OR %femininity and masculinity% OR %gendered worlds% OR %global</p>

	<p> childhoods% OR %happiness% OR %health care% OR %health finance% OR %health financing% OR %health prevention% OR %health system% OR %health treatment% OR %health workforce in developing countries% OR %healthy life% OR %hiv % OR %household accident% OR %human death% OR %immigrant children% OR %immigrant families% OR %immunization campaign% OR %inclusive health% OR %individual differences% OR %intergenerational discrepancies% OR %international health policy% OR %international health regulations% OR %intertransculturality% OR %life satisfaction% OR %maltreatment% OR %measles% OR %mental disesae% OR %mental health% OR %mentoring inventions% OR %mortality% OR %neo-natal death% OR %obesity% OR %online harassment% OR %optimal experience% OR %orphans% OR %parental support% OR %parent-child conflicts% OR %parent-child relationship% OR %personality development% OR %physical health% OR %planned abortion% OR %plasmodium% OR %polio% OR %positive affect% OR %post natal depression% OR %postnatal depression% OR %post-natal depression% OR %psychological harm% OR %psychological well-being% OR %psychological-mindedness% OR %refugees and health services% OR %road accident% OR %schistosomiasis% OR %self-determination rights% OR %self-esteem% OR %self-realization% OR %sleeping sickness% OR %social determinants of health% OR %spiritual development% OR %spontaneous abortion% OR %subjective well-being% OR %suicide% OR %teacher-student relationships% OR %time use% OR %typhoid% OR %unplanned pregnancy% OR %vaccin% OR %wash campaign% OR %welfare% OR %well-being% OR %wellness% OR %world health organization% OR %zikv%)  (%access to health care% OR %acquired immunodeficiency syndrome% OR %aids dementia complex% OR %aids education% OR %aids epidemic% OR %aids mortality% OR %aids orphans% OR %aids patient% OR %aids prevention% OR %aids risk% OR %aids-prevention% OR %aids-related complex% OR %aids-related stigma% OR %aids-risk% OR %alcohol use% OR %alcoholism% OR %child mortality% OR %childhood mortality% OR %child-mortality% OR %dengue% OR %disease outbreak% OR %doha declaration% OR %drug abuse% OR %drug addiction% OR %ebola% OR %economic burden of disease% OR %global burden of disease% OR %health care access% OR %health care cost% OR %health care policy% OR %health care quality% OR %health care service% OR %health care system% OR %health care use% OR %health care utilization% OR %health risk% OR %healthcare access% OR %hepatitis% OR %hiv acquisition% OR %hiv aids% OR %hiv and aids% OR %hiv care% OR %hiv disease% OR %hiv epidemi% OR %hiv incidence% OR %hiv infection% OR %hiv positive% OR %hiv prevalence% OR %hiv prevention% OR %hiv risk% OR %hiv seroprevalence% OR %hiv status% OR %hiv stigma% OR %hiv testing% OR %hiv transmission% OR %hiv treatment% OR %hiv/aids% OR %hiv-1% OR %hiv-aids% OR %human immunodeficiency virus% OR %infant death% OR %infant mortality% OR %infant-mortality% OR %life expectancy% OR %malaria% OR %maternal death% OR %maternal health% OR %maternal mortality% OR %neglected tropical diseases% OR %neonatal death% OR %neonatal mortality% OR %neonatal-mortality% OR %perinatal mortality% OR %perinatal-mortality% OR %plasmodium falciparum% OR %plasmodium-falciparum% OR %pregnancy-related mortality% OR %premature death% OR %premature mortality% OR %public health% OR %quality of health care% OR %reproductive health% OR %road accidents% OR %substance abuse% OR %tobacco use% OR %traffic accident% OR %tuberculosis% OR %universal health coverage% OR %vaccination% OR %vaccine% OR %zika%) </p>
4	<p> %sustainab% AND (%access to quality higher education% OR %accountability and education% OR %accountable education% OR %accreditation and education% OR %active learning% OR %admission, enrolment and retention% OR %adult learners% OR %affordable higher education% OR %armed conflict and education% OR %autonomy and education% OR %child-friendly schools% OR %child-friendly spaces and schools% OR %class size% OR %class-based learning% OR %classroom management% OR %cognitive processes% OR %community education% OR %consistency and education% OR %continuous improvement and education% OR %continuity of education% OR %core competencies% OR %cost effective education% OR %curricula% OR %design and maintenance of learning spaces% OR %digital learning% OR %disability and education% OR %disasters and education% OR %distance to school% OR %early childhood development% OR %education access% OR %education and conflict mitigation% OR %education and corruption% OR %education and diversity% OR %education and humanitarian response% OR %education capacity% OR %education enrollment% OR %education ethics% OR %education for cultural diversity% OR %education for gender equality% OR %education for global citizenship% OR %education for health and nutrition% </p>



	<p>OR %education for human rights% OR %education for peace% OR %education for refugees% OR %education for sustainability% OR %education for sustainable development% OR %education in emergencies% OR %education internally displaced persons% OR %education law and policy formulation% OR %education needs% OR %education policy% OR %education relevance% OR %education rights and goals% OR %educational resource% OR %effective learning environments% OR %efficiency and education% OR %e-learning% OR %equitable basic education% OR %excellence and education% OR %experience and qualifications% OR %fitness for purpose and education% OR %formal learning% OR %formal training% OR %free basic education% OR %further education% OR %high academic standards and education% OR %higher education% OR %highschool% OR %hybrid learning% OR %immediate education priorities% OR %inclusive education% OR %increasing student enrollments% OR %informal education% OR %informal learning% OR %informal training% OR %instructional materials% OR %learning environment% OR %learning material% OR %learning outcome% OR %learning sites% OR %lifelong learning% OR %local education action plans% OR %massification and education% OR %m-learning% OR %national and local education plans% OR %non formal education% OR %non-violent classroom management% OR %parental education% OR %participatory learning% OR %performance appraisals% OR %planning and implementation% OR %practical learning% OR %primary education% OR %primary school% OR %primary schools% OR %purposeful education% OR %qualified teachers% OR %quality assurance and education% OR %quality basic education% OR %quality enhancement and education% OR %quality preprimary education% OR %recruitment and selection of teachers% OR %reduce gender disparities in education% OR %refugees and learning% OR %relevance of education% OR %relevant education% OR %safety inschool% OR %scholarships for developing countries for higher education% OR %school discrimination% OR %school distance% OR %school distress% OR %school enrolment rate% OR %school fee% OR %school fees% OR %school safety% OR %schooling% OR %secondary education% OR %secondary school% OR %secondary schools% OR %sexuality education% OR %skills for employment% OR %skills for work% OR %student focused learning% OR %students support and coordination% OR %students support and supervision% OR %teacher compensation% OR %teacher qualification% OR %teaching methods% OR %technical training% OR %tertiary education% OR %transformative learning% OR %universal access to education% OR %upgrade education facilities% OR %value-added education%)</p> <p>OR</p> <p>(%access to education% OR %african adult learners% OR %early childhood education% OR %higher education access% OR %education attainment% OR %primary education enrolment% OR %education enrolment% OR %special education needs% OR %education quality% OR %educational access% OR %educational accessibility% OR %open educational resources% OR %equitable education% OR %equitable education outcomes% OR %female education% OR %gender and education% OR %gender balance% OR %gender balance/imbalance% OR %girls education% OR %learning opportunity% OR %learning spaces% OR %literacy% OR %numeracy% OR %poverty and education% OR %quality education% OR %quality of education% OR %right to education% OR %school attendance% OR %school enrollment% OR %school enrolment% OR %demand for schooling% OR %returns to schooling% OR %womens schooling raise% OR %compulsory schooling laws% OR %schooling quality% OR %supply of schooling% OR %support for schooling% OR %quality of schooling% OR %return to schooling% OR %daughters' schooling% OR %gender disparity in schooling% OR %teacher training% OR %vocational training% OR %women education% OR %women's education%)</p>
5	<p>%sustainab% AND (%aboriginal women% OR %abortion in women% OR %academic feminism% OR %academics feminists% OR %access to child care% OR %androcentrism% OR %antimen% OR %anti-men% OR %antiwomen% OR %anti-women% OR %approachto gender% OR %autonomous women's groups% OR %autonomy of academic feminism% OR %biological sex differences% OR %black feminism% OR %black women's cultural production% OR %boys' access to justice% OR %boys' education% OR %bulimia nervosa% OR %changing patterns of family% OR %child custody% OR %child marriage% OR %civil partnership% OR %crisis in masculinity% OR %defining women% OR %diversity of family% OR %divorce right% OR %domestic violence women% OR %early marriage% OR %eating disorders% OR %ecofeminism% OR %emancipation of women by war% OR %employment equity% OR %employment inequalities% OR %empower% OR %families of choice% OR %family and masculinity% OR %family and women's employment% OR %family friendly employment policies% OR %family planning%</p>

OR %family structure% OR %female education% OR %female employment% OR %female genital cutting% OR %female genital mutilation% OR %female infanticide% OR %female labor force participation% OR %female labour force participation% OR %female leadership% OR %female political participation% OR %female unemployment% OR %feminine gender norms% OR %femininity% OR %feminism% OR %feminist consciousness-raising% OR %feminist critiques% OR %feminist empiricism% OR %feminist environmental studies% OR %feminist environmentalism% OR %feminist epistemology% OR %feminist ethics% OR %feminist ethnography% OR %feminist history% OR %feminist knowledge% OR %feminist methodology wars% OR %feminist philosophy% OR %feminist political practice% OR %feminist political strategies% OR %feminist political theory% OR %feminist politics of location% OR %feminist postmodern epistemologies% OR %feminist research% OR %feminist spirituality movement% OR %feminist standpoint theories% OR %feminist study of bodies% OR %feminist study of care% OR %feminist study of citizenship% OR %feminist study of friendship% OR %feminist study of men% OR %feminist study of nationalism% OR %feminist study of religion% OR %feminist study of science and technology% OR %feminist study of women and nature% OR %feminist theory% OR %feminization of labour market% OR %feminization of poverty% OR %femocrats% OR %fetal rights% OR %focus of feminist study% OR %forced marriage% OR %forced prostitution% OR %fragile families and child% OR %gay marriage% OR %gay men% OR %gay studies% OR %gender% OR %gene modification technology% OR %genital surgery% OR %genus studies% OR %girls' access to justice% OR %girls' education% OR %global campaign for women's human rights% OR %global context of feminism% OR %global crisis of masculinity% OR %global perspective in feminism% OR %grounded feminist knowledge% OR %heteronormativity% OR %heterorelationality% OR %heterosexual couples, gender convergence% OR %heterosexuality% OR %homosexuality% OR %honor killing% OR %honour killing% OR %hormone replacement therapy% OR %household technologies% OR %human fertility% OR %human hermaphroditism% OR %human infertility% OR %human intersexuality% OR %hybridized identities% OR %institutionalization of feminism% OR %international concern with masculinities% OR %international women's movement% OR %intra-household allocation% OR %legal system and feminism% OR %leisure and masculinity% OR %lesbian cultural production% OR %lesbian families% OR %lesbian friendship networks% OR %lesbian identity% OR %lesbian marriage% OR %lesbian pupils and parents% OR %lesbian sex wars% OR %lesbian studies% OR %lesbianism% OR %liberal feminism% OR %liberal-rights tradition% OR %location of feminist study% OR %male culture% OR %male education% OR %male employment% OR %male gender norms and% OR %male genital cutting% OR %male genital mutilation% OR %male labor force participation% OR %male labour force participation% OR %male leadership% OR %male political participation% OR %male sex role% OR %male unemployment% OR %masculine gender norms% OR %masculine identities% OR %masculine, challenging% OR %masculinities% OR %masculinity% OR %materiality of sex% OR %maternal mortality% OR %maternal thinking% OR %men in leadership% OR %men labor force participation% OR %men labour force participation% OR %men violence% OR %men's education% OR %men's political participation% OR %men's unemployment% OR %men's health% OR %men's studies% OR %men's employment% OR %misandry% OR %misogyny% OR %objectification of women% OR %patriarchal dividend% OR %patriarchy% OR %post-feminist cultural production% OR %post-heterorelational friendship% OR %pragmatism, infeminist epistemology % OR %pragmatist-feminist% OR %pregnan% OR %pre-menstrual syndrome% OR %radical feminism% OR %radicalesbians% OR %reproductive health% OR %reproductive rights% OR %reproductive technologies% OR %role in household labour% OR %same sex marriage% OR %same-sex couples% OR %same-sex marriage% OR %sex change procedures% OR %sex differences% OR %sex roles% OR %sex traffic% OR %sexual behaviour% OR %sexual health% OR %sexual identity% OR %sexual rights% OR %sexual violence% OR %single parents% OR %single-parent families% OR %single-parent poverty% OR %social construction perspective on gender% OR %social policy familialism% OR %socialist feminism% OR %subjugated knowledges% OR %third world feminists% OR %transgender% OR %transnational feminism% OR %transsexualism% OR %unequal pay% OR %unequal salary% OR %unpaid care work% OR %unpaid work% OR %victimization of women in war% OR %victims of sexual violence% OR %violence girl% OR %wage differential% OR %western approach to difference% OR %western feminism% OR %woman% OR %women%)

	<p>OR</p> <p>(%women's empowerment% OR %womens empowerment% OR %women empowerment% OR %female empowerment% OR %gender equality% OR %gender inequality% OR %gender-based violence% OR %gender discrimination% OR %gender equity% OR %gender disparities% OR %gender violence% OR %gender disparity% OR %gender pay gap% OR %gender inequalities%)</p>
6	<p>%sustainab% AND</p> <p>(%access to water% OR %acute diarrheal disease% OR %antifouling membrane% OR %anti-fouling membrane% OR %aquatic ecotoxicology% OR %aquatic toxicology% OR %aquifers and water% OR %badlands and water% OR %biosphere's reserve% OR %black water% OR %blue water% OR %brominated flame retardants% OR %cholera% OR %clean water% OR %clofibric acid% OR %constructed wetlands% OR %denitrification% OR %desertification% OR %domestic wastewater% OR %drinking water% OR %drought% OR %dysentery% OR %ecosystems and water% OR %endocrine disruptor% OR %equitable access to sanitation% OR %eutrophication% OR %flocculation% OR %flood control% OR %flood damage% OR %flood defence% OR %flood forecasting% OR %flood hazard management% OR %flood management% OR %flood risk% OR %flood simulation modelling% OR %flood warning% OR %flooding tolerance% OR %floodplain geomorphology% OR %floodplain restoration% OR %floods monitoring% OR %forests and water% OR %free water% OR %freshwater% OR %green water% OR %grey water% OR %groundwater% OR %hygienic toilet% OR %integrated water resources management% OR %integrated watershed management% OR %integrated watershed modelling% OR %leached% OR %malaria% OR %membrane bioreactor% OR %membrane filtration% OR %membrane fouling% OR %microfiltration% OR %microplastic% OR %micro-plastic% OR %municipal wastewater% OR %nanofiltration% OR %nitrogen removal% OR %nutrient removal% OR %optimal water use% OR %palmer drought severity index% OR %pesticide% OR %pharmaceutical% OR %phosphorus removal% OR %pollution% OR %polycyclic aromatic hydrocarbons% OR %potable water% OR %rainwater harvesting% OR %reverse osmosis% OR %river% OR %rural water supply% OR %sanitation% OR %seawater intrusion% OR %sequencing batchreactor% OR %sewage sludge% OR %sewer% OR %shared water% OR %soil and water conservation% OR %storage aquifers% OR %stormwater management% OR %structuration% OR %submarine groundwater discharge% OR %surface water% OR %textile wastewater% OR %typhoid% OR %ultrafiltration% OR %underground dams% OR %underground water% OR %urban floods% OR %urban water% OR %virtual water% OR %waste water% OR %wastewater% OR %water% OR %watershed management%)</p>
7	<p>%sustainab% AND</p> <p>(%access to energy% OR %alkaline% OR %biodegradable energy% OR %biomass% OR %cooling component% OR %cooling device% OR %cooling equipment% OR %dams% OR %direct methanol% OR %dye sensitized% OR %electric vehicle% OR %electrochemical energy system% OR %electromagnetic pollution% OR %energy distributed generation% OR %geothermics% OR %ground-coupled heat% OR %heating component% OR %heating device% OR %heating equipment% OR %high voltage direct current transmission% OR %HVDC transmission% OR %hybrid vehicles% OR %hydraulic microcentrals% OR %hydrogen and powered and engines% OR %mineral carbon% OR %non-polluting energies% OR %phosphoric acid% OR %molten carbonate% OR %polymer electrolyte membrane% OR %radiation% OR %renewables% OR %reversible% fuel cell% OR %smart micro-grid% OR %solar collect% OR %system wecs% OR %waste conversion% OR %water energy%)</p> <p>OR</p> <p>(%alkaline battery% OR %alkaline fuel cell% OR %alkaline fuel-cell% OR %alkaline rechargeable batter% OR %alternative energy% OR %bioenergy% OR %biofuel% OR %biogas% OR %biomass boiler% OR %biomass burning emissions% OR %biomass combustion% OR %biomass cookstove% OR %biomass energy% OR %biomass fuel% OR %biomass gasifier% OR %biomass pellets% OR %biomass power% OR %biomass production% OR %biomass productivity% OR %biomass residue% OR %biomass stove% OR %biomass supply chain% OR %biomass torrefaction% OR %biomass utilization% OR %biomass waste% OR %biomass yield% OR %biomass-burning emission% OR %demand-side management% OR %direct methanol fuel cell% OR %district heat% OR %electricity generation% OR %energiwende% OR %energy conversion efficiency% OR %energy cost% OR %energy efficiency% OR %energy infrastructure% OR %energy management% OR %energy storage% OR %enhanced geothermal system% OR %geothermal energy% OR %geothermal heat% OR %geothermal power% OR %ground source heat pump% OR %ground-coupled heat pump% OR %hybrid biomass% OR %hydraulic energy% OR %hydroelectric dam% OR %hydropower% OR %life cycle assessment% OR %life-cycle assessment% OR %lithium-ion batter% OR %micro grid% OR %microbial fuel cell% OR %molten carbonate fuel cell% OR %nuclear energy%</p>

		OR %ocean energy% OR %phosphoric acid fuel cell% OR %photovoltaic% OR %polymer electrolyte membrane fuel cell% OR %rechargeable alkaline batteries% OR %renewable biomass% OR %renewable energies% OR %renewable energy% OR %residual biomass% OR %smart grid% OR %smart meter% OR %smart microgrid% OR %solar cell% OR %solar collector% OR %solar energy% OR %solid oxide% OR %torrefied biomass% OR %waste biomass% OR %wave energy% OR %wind energy% OR %wind farm% OR %wind park% OR %wind power% OR %wind turbine%)
8	%sustainab% AND  OR	(%carbon offset% OR %child lab% OR %child soldier% OR %circular economy% OR %decent job% OR %demographic bonus% OR %economic development% OR %economic geography% OR %economic growth% OR %economic policies% OR %economic policy% OR %economic productivity% OR %forced lab% OR %formalization% OR %full employment% OR %global jobs% OR %inclusive economy% OR %income group% OR %industrial development% OR %innovation and unemployment% OR %lab market institution% OR %lab right% OR %labour intensive% OR %labour market institution% OR %labour right% OR %labour-intensive% OR %local investment% OR %low carbon economy% OR %low-carbon economy% OR %medium enterprise% OR %medium entrepreneur% OR %microcredit% OR %micro-credit% OR %microenterprise% OR %micro-enterprise% OR %microfinanc% OR %micro-financ% OR %offset project% OR %precarious job% OR %productive development% OR %productive employment% OR %productive sophistication% OR %prosperity% OR %quality job% OR %rural economy% OR %small enterprise% OR %small entrepreneur% OR %starting entrepreneur% OR %structural change% OR %sustainable tourism% OR %taxes% OR %technological upgrading% OR %trade support% OR %trade union% OR %unemployed youth% OR %unequal pay% OR %working policy% OR %youth employ%)  (%child labour% OR %decent work% OR %local economic development% OR %rural economic development% OR %employment protection% OR %forced labour% OR %human trafficking% OR %inclusive growth% OR %informal economy% OR %informal employment% OR %informal sector% OR %job creation% OR %labour market institutions% OR %labour rights% OR %living wage% OR %small and medium enterprises% OR %microcredit% OR %microenterprises% OR %microfinance% OR %migrant workers% OR %minimum wage% OR %modern slavery% OR %precarious employment% OR %small enterprises% OR %social entrepreneurship% OR %trade unions% OR %unemployment% OR %working environment% OR %youth employment%)
9	%sustainab% AND	(%accessibility% OR %artificial intelligence% OR %collaborative computing% OR %social computing% OR %collaborative innovation% OR %communication hardware% OR %communication interface% OR %communication storage% OR %computer forensics% OR %computer graphics% OR %computer systems organization% OR %computing methodologies% OR %cross-computing tools% OR %cross-computing techniques% OR %data management systems% OR %database security% OR %storage security% OR %design and analysis of algorithms% OR %distributed computing methodolog% OR %document management% OR %text processing% OR %electronic design automation% OR %embedded and cyber-physical systems% OR %emerging technologies% OR %enterprise computing% OR %formal languages and automata theory% OR %green process% OR %green product% OR %green industry% OR %hardware test% OR %hardware validation% OR %human computer interaction% OR %human-centered computing% OR %inclusive innovation% OR %incremental innovation% OR %industrial diversification% OR %industrial hygiene% OR %industrial pollution% OR %industrial safety% OR %industrial sophistication% OR %industrial waste management% OR %industrial waste treatment% OR %information retrieval% OR %information storage systems% OR %information systems% OR %information theory% OR %infrastructural development% OR %innovative process% OR %integrated circuit% OR %interaction design% OR %internet access% OR %low carbon production% OR %machine learning% OR %mathematical software% OR %mathematics of computing% OR %medium entrepreneur% OR %microenterprise% OR %micro-enterprise% OR %mission-oriented innovation% OR %modeling and simulation% OR %models of computation% OR %network algorithms% OR %network architectures% OR %network components% OR %network performance evaluation% OR %network properties% OR %network protocols% OR %network services% OR %network types% OR %operations research% OR %organizational innovation% OR %parallel computing methodologies% OR %printed circuit boards% OR %radical innovation% OR %real-time systems% OR %security and privacy% OR %security in hardware% OR %security services% OR %small entrepreneur% OR %application security% OR %structural change%

	<p>OR</p> <p>(%structural equity% OR %systems security% OR %technological capabilities% OR %technological change% OR %technological development% OR %technology policy% OR %theory of computation% OR %transportation research% OR %ubiquitous and mobile computing% OR %very large scale integration design%)</p> <p>(%civil infrastructure% OR %critical infrastructure% OR %cryptography% OR %cyber infrastructure% OR %cyberinfrastructure% OR %development investment% OR %eco-innovation% OR %e-infrastructure% OR %electronic commerce% OR %energy infrastructure% OR %freight transport% OR %global value chain% OR %green infrastructure% OR %grid infrastructure% OR %industrial design% OR %industrial development% OR %industrial ecology% OR %industrial growth% OR %industrial policy% OR %industrial structure% OR %industrialization% OR %information technology infrastructure% OR %infrastructural investment% OR %infrastructure development% OR %infrastructure financ% OR %infrastructure investment% OR %infrastructure planning% OR %infrastructure projects% OR %infrastructure security% OR %infrastructure system% OR %innovation management% OR %innovation strategy% OR %intermodal transport% OR %it infrastructure% OR %manufacturing flexibility% OR %manufacturing industries% OR %manufacturing industry% OR %manufacturing system% OR %manufacturing-industr% OR %medium enterprise% OR %medium-sized enterprise% OR %mobile communication% OR %mobile network% OR %network security% OR %passenger transport% OR %product innovation% OR %public infrastructure% OR %public transport% OR %rail transportation% OR %regional infrastructure% OR %resilient infrastructure% OR %road infrastructure% OR %road transport% OR %security infrastructure% OR %small enterprise% OR %socially responsible investment% OR %software security% OR %solute transport% OR %sustainable infrastructure% OR %sustainable manufacturing% OR %sustainable transport% OR %technology transfer% OR %transborder infrastructure% OR %transport infrastructure% OR %transport management% OR %transport planning% OR %transport policy% OR %transport system% OR %transportation planning% OR %transportation system% OR %water infrastructure% OR %waterway transport%)</p>
10	<p>%sustainab% AND</p> <p>(%accumulation% OR %center periphery% OR %convergence and divergence% OR %democracy and inequality% OR %development on a human scale% OR %developed countries% OR %development gap% OR %discrimination% OR %endogenous development% OR %equality% OR %eradication of poverty% OR %foreign direct investment% OR %gini% OR %global distribution of wealth% OR %immigration% OR %income accruing to the top groups% OR %income concentration% OR %income shares% OR %income tax data% OR %knowledge and skill diffusion% OR %kuznets curve% OR %marginalised population% OR %marginalized population% OR %mass poverty% OR %migrant remittance% OR %migration policies% OR %migration policy% OR %north-south% OR %personal income tax% OR %political inclusion% OR %private capital% OR %prosperity and poverty% OR %reform program% OR %responsible migration% OR %social needs% OR %structural heterogeneity% OR %structure of inequality% OR %taxes% OR %technological progress and inequality% OR %wtid%)</p> <p>OR</p> <p>(%development assistance% OR %racial-discrimination% OR %racial discrimination% OR %gender discrimination% OR %temporal discrimination% OR %employment discrimination% OR %ethnic discrimination% OR %racial/ethnic discrimination% OR %wage discrimination% OR %social discrimination% OR %everyday discrimination% OR %sex-discrimination% OR %intergroup discrimination% OR %age discrimination% OR %perceived racial-discrimination% OR %genetic discrimination% OR %language discrimination% OR %sex discrimination% OR %age-discrimination% OR %labor-market discrimination% OR %hiring discrimination% OR %interpersonal discrimination% OR %workplace discrimination% OR %state discrimination% OR %sexual orientation discrimination% OR %individual discrimination% OR %face discrimination% OR %religious discrimination% OR %race discrimination% OR %sexual discrimination% OR %distribution of wealth% OR %emigration% OR %inequality% OR %consumption inequality% OR %racial-inequality% OR %race model inequality% OR %futura inequality% OR %marriage equality% OR %political equality% OR %ethnic inequality% OR %global inequality% OR %migrant remittances% OR %immigration policies% OR %immigration policy% OR %north-south trade% OR %rural poverty% OR %segregation% OR %social exclusion% OR %social inclusion% OR %social protection% OR %underdevelopment% OR %wealth inequality%)</p>
11	<p>%sustainab% AND</p> <p>(%basic service% OR %housing% OR %slum% OR %transport% OR %traffic% OR %bike% OR %cycling% OR %freight% OR %electric car% OR %green car% OR %intelligent car% OR %ecodriv% OR %eco-driv% OR %vehicle% OR %waterway% OR %pedestrian%)</p>

	<p>OR %rail% OR %modal shift% OR %mobility% OR %intermodality% OR %urban% OR %human settlement% OR %marginal settlement% OR %regional%planning% OR %territorial%planning% OR %building%design% OR %resilient%building% OR %cities% OR %community%action% OR %community%develop% OR %community%participat% OR %metropolitan% OR %neighbor% OR %land use% OR %gentrification% OR %living% OR %cultural heritage% OR %natural heritage% OR %geath% OR %gini% OR %diposal %waste% OR %waste management% OR %recycl% OR %green roof% OR %public space% OR %zero energy% OR %ecodesign% OR %eco-design% OR %coexisten% OR %sendai framework%)</p> <p>(%alternative-fuel vehicle% OR %alternative-fuel vehicle% OR %automobility% OR %distressed neighborhood% OR %electric vehicle% OR %fuel-cell vehicle% OR %fuel cell vehicle% OR %human mobility% OR %independent mobility% OR %life-space mobility% OR %mobility management% OR %neighborhood environment% OR %public transport% OR %recycling% OR %residential-mobility% OR %residential mobility% OR %smart cities% OR %traffic accident% OR %traffic assignment% OR %traffic congestion% OR %traffic control% OR %traffic emissions% OR %traffic flow% OR %traffic management% OR %traffic noise% OR %traffic safety% OR %traffic simulation% OR %traffic-flow% OR %traffic flow% OR %urban air% OR %urban atmosphere% OR %urban climate% OR %urban drainage% OR %urban ecology% OR %urban ecosystem% OR %urban environment% OR %urban green space% OR %urban heat island% OR %urban heat-island% OR %urban mobility% OR %urban parks% OR %urban planning% OR %urban renewal% OR %urban soil% OR %urban stormwater% OR %urban water management% OR %urban-development% OR %urban development% OR %urban-environment% OR %urban environment% OR %urban-growth% OR %urban growth% OR %vehicle emissions% OR %vehicle exhaust%))</p>
12	<p>%sustainab% AND (%biobased product% OR %bio-based product% OR %biogasification% OR %clean production% OR %consumption% OR %corporate sustainability% OR %eco-supply chain% OR %fair trade% OR %gasification% OR %green consumerism% OR %green core competence% OR %green innovation% OR %green marketing% OR %green process innovation% OR %green product innovation% OR %greening of industry% OR %hazardous chemical% OR %industrial sustainability% OR %input-output analysis% OR %integrated product policy% OR %leachate% OR %leaching test% OR %low carbon economy% OR %low-carbon economy% OR %pesticide% OR %post-harvest% OR %product service system% OR %product stewardship% OR %pyrolysis% OR %recycl*% OR %resource footprint% OR %self-consumption% OR %source reduction% OR %supply chain% OR %sustainable chemistry% OR %sustainable consumption% OR %sustainable energy use% OR %sustainable lifestyle% OR %sustainable procurement% OR %sustainable production% OR %toxic chemical%)</p> <p>OR (%biodegradable% OR %biofuel production% OR %biomass gasification% OR %biowaste% OR %cleaner production% OR %composting% OR %consumer behavio% OR %eco-efficiency% OR %ecological footprint% OR %electronic waste% OR %energy consumption% OR %energy from waste% OR %energy-consumption% OR %e-waste% OR %fly ash% OR %food waste% OR %fuel consumption% OR %green supply chain% OR %hazardous waste% OR %household waste% OR %hydrothermal gasification% OR %incineration% OR %industrial ecology% OR %industrial symbiosis% OR %industrial waste% OR %landfill% OR %loop supply chain% OR %nuclear waste% OR %organic waste% OR %overconsumption% OR %packaging waste% OR %pollutant% OR %power consumption% OR %radioactive waste% OR %reverse supply chain% OR %solid waste% OR %steam gasification% OR %supercritical water gasification% OR %waste activated sludge% OR %waste characterization% OR %waste collection% OR %waste disposal% OR %waste generation% OR %waste incineration% OR %waste management% OR %waste materials% OR %waste minimization% OR %waste plastics% OR %waste utilization% OR %waste valorization% OR %water consumption% OR %zero waste%)</p>
13	<p>%sustainab% AND (%adaptation% OR %adaptive management% OR %air-sea interactions% OR %anthropocen% OR %atmosphere% OR %biodivers% OR %bioeconomy% OR %biogeochemical cycle% OR %biological production% OR %carbon% OR %climate% OR %climatology% OR %consumption% OR %deforestation% OR %El Nino-Southern Oscillation% OR %effect permafrost% OR %emission% OR %ENSO% OR %extreme% OR %floods% OR %food chain% OR %greenhouse gas% OR %greenhouse% OR %hazard% OR %holocene% OR %ice-ocean interaction% OR %intergovernmental panel on climate change% OR %island% OR %land use% OR %megacit% OR %methane% OR %migration% OR %ocean ph% OR %paleoclimate% OR %palynology% OR %policy% OR %precipitation changes% OR %production% OR %radiation% OR %radiative forcing% OR %regional</p>

	<p>OR</p> <p>climate% OR %regional climates% OR %scenarios% OR %sea level% OR %stable isotopes% OR %ultraviolet radiation% OR %UNFCCC% OR %United Nations Framework Convention on Climate Change%)  (%abrupt climate change% OR %climate change adaptation% OR %climate adaptation% OR %climate-change adaptation% OR %adaptation to climate change% OR %ecosystem-based adaptation% OR %climatic adaptation% OR %drought adaptation% OR %biogeochemical cycles% OR %carbon emissions% OR %carbon-dioxide emissions% OR %carbon dioxide emissions% OR %clean development mechanism% OR %climate change% OR %conservation% OR %drought% OR %emissions% OR %climate extremes% OR %temperature extremes% OR %extreme rainfall% OR %extreme weather% OR %extreme heat% OR %extreme weather events% OR %extreme temperatures% OR %extreme climatic events% OR %extreme temperature% OR %daily climate extremes% OR %extreme drought% OR %weather extremes% OR %extreme climate% OR %extreme floods% OR %extreme weather event% OR %rainfall extremes% OR %climate extreme% OR %extreme rainfall events% OR %extreme heat events% OR %extreme climate events% OR %climatic extremes% OR %hydrological extremes% OR %extreme climatic event% OR %extreme temperature events% OR %extreme sea levels% OR %extreme environment% OR %hot extremes% OR %extreme flood% OR %extreme temperature indices% OR %extreme storms% OR %glacier retreat% OR %global change% OR %global climate change% OR %global warming% OR %green jobs% OR %greenhouse gases% OR %greenhouse-gas emissions% OR %hazards% OR %hazard% OR %human impact% OR %ipcc% OR %heat-island% OR %heat island% OR %kyoto protocol% OR %mitigation% OR %nitrogen cycle% OR %north atlantic oscillation% OR %ocean acidification% OR %southern-ocean phytoplankton% OR %ocean temperature% OR %ocean warming% OR %ozone% OR %permafrost% OR %phenology% OR %climate policy% OR %environmental policy% OR %environmental-policy% OR %climate change policy% OR %climate-change policy% OR %regional climate model% OR %sea ice% OR %sea level rise% OR %streamflow% OR %thermal expansion% OR %thermohaline circulation% OR %unfccc% OR %united nations framework convention on climate change% OR %urban climate% OR %warming%)</p>
14	<p>%sustainab% AND</p> <p>(%acidification of the oceans% OR %algae% OR %aquaculture% OR %atlantic salmon% OR %barramundi% OR %barrier reef% OR %biochemical cycle% OR %biogeochemical cycle% OR %chemical oceanography% OR %coastal geography% OR %coastal habitat% OR %cod% OR %coral bleach% OR %coral reef% OR %diatoms% OR %El Nino phenomenon% OR %eochromis% OR %euphotic zone% OR %eutrophicat% OR %farmed aquatic animal% OR %fish biomass% OR %fish farm% OR %fish farming% OR %fish stocking% OR %fish sustainable% OR %fisheries sustainable development% OR %freshwater marine currents% OR %gadus mhua% OR %geological oceanography% OR %glacier dynamics% OR %glacier mass% OR %glaciology% OR %global circulation model% OR %haddock% OR %herring% OR %ice-ocean% OR %impacts of climate change% OR %integrated aquaculture% OR %kelp forest% OR %La Nina phenomenon% OR %limnology% OR %Lion fish% OR %littoral zone% OR %local fauna% OR %longline fish% OR %macroalgae% OR %mangrove% OR %mariculture% OR %microalgae% OR %mollusk% OR %native fauna% OR %niloticus% OR %ocean circulation% OR %ocean currents% OR %paleoceanography% OR %paleo-oceanography% OR %penaeus monodon% OR %phenomena of El Nino% OR %phenomena of La Nina% OR %physical oceanography% OR %plankton% OR %Pterois antennata% OR %rainbow trout% OR %Rising sea levels% OR %salmo salar% OR %salmon% OR %sea% OR %sedimentation% OR %shrimp% OR %sponges% OR %submarine geophysics% OR %sustainable fisheries% OR %thermohaline circulation% OR %tilapia% OR %trawling%)</p> <p>OR</p> <p>(%artisanal fisheries% OR %artisanal fishing% OR %biogeochemical cycles% OR %biological oceanography% OR %coastal eutrophication% OR %coastal habitats% OR %coastal management% OR %coastal zone% OR %coral bleaching% OR %coral reefs% OR %eutrophication% OR %fisheries management% OR %fishery management% OR %glacier retreat% OR %halocline% OR %hydrography% OR %hydrology% OR %paleolimnology% OR %marine% OR %ocean acidification% OR %oceanography% OR %overfishing% OR %phytoplankton% OR %water cycle%)</p>
15	<p>%sustainab% AND</p> <p>(%Amazon jungle% OR %aquifer% OR %astrobiology% OR %atmospheric chemistry% OR %bio-econom% OR %bioeconom% OR %biogeography% OR %biological diversity% OR %biological production% OR %biomodels% OR %burning the ground% OR %carbon sequestration% OR %chytridiomycosis% OR %climate change%geology% OR %geology%climatic change% OR %climatic change%geology% OR %geology%climatic</p>

	<p>change% OR %climatology% OR %coarse woody debris% OR %coastal processes%geology% OR %geology%coastal processes% OR %coastal zones%geomorphology% OR %geomorphology%coastal zones% OR %conservation of ecosystems% OR %danger of extinction% OR %data processing%hydrogeology% OR %hydrogeology%data processing% OR %dryland% OR %earth system% OR %eco system% OR %elephant ivory% OR %energy%ocean currents% OR %ocean currents%energy% OR %energy%thermal gradients% OR %thermal gradients%energy% OR %environmental geology% OR %environmental health%geology% OR %geology%environmental health% OR %estuarine processes%geology% OR %geology%estuarine processes% OR %ethnobiology% OR %ethnogeology% OR %exotic species% OR %fluvial hydraulics% OR %food chain% OR %forensic geology% OR %fracking% OR %geodynamics% OR %geological engineering% OR %geological oceanography% OR %geophysics% OR %geotechnics% OR %geothermal% OR %geology%global warming% OR %global warming%geology% OR %habitat fragmentation% OR %habitat loss% OR %hydric monitoring% OR %hydrogeochemistry% OR %hydrogeological mapping% OR %hydrogeological monitoring% OR %hydroelectric%hydrogeology% OR %hydrogeology%hydroelectric% OR %instrumentation%monitoring% OR %monitoring%instrumentation% OR %International Treaty on Plant Genetic Resources for Food and Agriculture% OR %landscape biota evolution% OR %Landscape ecology% OR %geology%landslides% OR %landslides%geology% OR %leaf area index% OR %limnology% OR %loss of ecosystems% OR %macroinvertebrates% OR %madagascar% OR %geomorphology%marine platforms% OR %marine platforms%geomorphology% OR %mass removal processes% OR %medical geology% OR %melting of glaciers% OR %meteorology% OR %mineral deposits% OR %mineral resources% OR %mountain*% OR %Nagoya Protocol on Access to Genetic Resources% OR %natural reserves% OR %neotectonics% OR %neotropics% OR %non-conventional hydrocarbons% OR %paleoclimatology% OR %paramo% OR %picea abies% OR %pinus ponderosa% OR %pinus sylvestris% OR %ponderosa pine% OR %prescribed fire% OR %protection of ecosystems% OR %recharge of aquifer% OR %reserve selection% OR %rhinoceros horn% OR %geology%risk assessment% OR %risk assessment%geology% OR %geology%risk management% OR %risk management%geology% OR %modelling%river systems% OR %river systems%modelling% OR %rosewood% OR %modelling%sediment transport% OR %sediment transport%modelling% OR %seeds% OR %seismic interpretation% OR %seismology% OR %seismotectonics% OR %shale% OR %silviculture% OR %solar energy% OR %stand structure% OR %sustainable management of flora and fauna% OR %geology%territorial order% OR %territorial order%geology% OR %thinning% OR %transgenic% OR %vascular plants% OR %modelling%water data% OR %water data%modelling% OR %processing%water data% OR %water data%processing% OR %wave power% OR %wetland% OR %wild flora%wildlife% OR %wildlife%wild flora% OR %wildlife market% OR %wildlife product% OR %wildlife traffic% OR %wind energy%) (%agricultural frontier% OR %alien species% OR %biodiversity% OR %conservation planning% OR %desertification% OR %drylands% OR %ecological resilience% OR %ecosystem function% OR %ecosystem management% OR %ecosystem services% OR %ecosystems% OR %endangered species% OR %endemism% OR %evolutionary ethnobiology% OR %ethnobotany% OR %extinction% OR %forest% OR %genetic resources% OR %geological heritage% OR %indicator species% OR %international treaty on plant genetic resources for food and agriculture% OR %invasive alien species% OR %invasive species% OR %land conservation% OR %land degradation% OR %land use% OR %landscape ecology% OR %macroecology% OR %natural parks% OR %natural regeneration% OR %nature conservation% OR %phylogeography% OR %plant diversity% OR %poaching% OR %protected areas% OR %protected species% OR %iucn red list% OR %red list% OR %reservoir characterization% OR %reservoir simulation% OR %soil contamination% OR %soil degradation% OR %species diversity% OR %species richness% OR %species-area relationship% OR %threatened species% OR %wetlands% OR %wildfire% OR %illegal wildlife market% OR %wildlife trafficking%)</p>
16	<p>%sustainab% AND (%accountable institution% OR %actual innocence% OR %armed conflict% OR %arms flow% OR %asset laundering% OR %bribery% OR %child abuse% OR %citizen oversight% OR %citizen participation% OR %civil conflict% OR %coexistence% OR %community-based primary production economies% OR %conflict management% OR %conflict resolution mechanisms% OR %corruption% OR %counternarcotic poli% OR %crime% OR %criminal% OR %criticism% OR %crop substitution% OR %crops for illicit use% OR %culture of peace% OR %de-mining and cleaning processes% OR %democratization%</p>



	<p>OR %detention% OR %drug trafficking% OR %economic alternatives% OR %economic reincorporation% OR %effective institution% OR %electoral participation% OR %end of conflict% OR %ethnic conflict% OR %ethnic groups% OR %exoneration% OR %extreme poverty eradication% OR %fair societies% OR %fair society% OR %formalization of land ownership% OR %freedom of information% OR %fundamental freedom% OR %genocide% OR %government budget% OR %grassroots innovation% OR %homicid% OR %human right% OR %human traffic% OR %illegal economi% OR %illicit drugs% OR %illicit use crop% OR %inclusive institution% OR %inclusive societ% OR %independence of judiciary% OR %independent judiciary% OR %jail% OR %judicial system% OR %labour market formalisation% OR %land access% OR %land acquisition% OR %land expropriation% OR %land ownwership% OR %land registration% OR %land registry% OR %laying down of arms% OR %legal identity for all% OR %legal remedies% OR %legal remedy% OR %monitoring and verification of accords% OR %murder% OR %narcotics% OR %national natural park% OR %non-repetition% OR %non-replanting agreements% OR %participative planning% OR %participatory political culture% OR %peace% OR %political agreement% OR %political opposition% OR %political participation% OR %political reincorporation% OR %population well-being% OR %prevention mesures% OR %prison% OR %pro-poor and inclusive innovation% OR %protection mesures% OR %public transparency% OR %reconciliation% OR %refugee% OR %regional transformation% OR %reparation% OR %responsible institution% OR %rule of law% OR %rural cadastres% OR %rural economy% OR %rural inclusion% OR %rural reform% OR %rural urban gap% OR %security guarantees% OR %separation of powers% OR %small growers of illicit crops% OR %social agreement% OR %social contract% OR %social development% OR %social innovation% OR %social protest% OR %social reincorporation% OR %social services% OR %solidarity economies% OR %surveillance services% OR %technical assistance% OR %territorial planning% OR %territorial-based approach% OR %terrorism% OR %tolerance% OR %torture% OR %transitional justice% OR %transparent institution% OR %tribunal% OR %truth% OR %verification mechanisms% OR %victims% OR %violence% OR %violent conflict% OR %war%)</p> <p>OR (%democracy% OR %justice%)</p>
17	<p>%sustainab% AND (%academic corporate% OR %academic-corporate% OR %agenda 21% OR %agreement% OR %aid effectiveness% OR %alliance% OR %bilateral donor% OR %BRICS% OR %capacity building% OR %capacity-building% OR %CGIAR% OR %collaboration% OR %community based% OR %community-based% OR %cooperation% OR %cop 21% OR %corporate social responsibility% OR %cyted program% OR %eclac% OR %fealac% OR %global% OR %globelics% OR %governance% OR %horizon 2020% OR %human development% %capability association% OR %capability association% %human development% OR %innovation oecd% OR %institution% OR %interdisciplinary% OR %inter-disciplinary% OR %international% OR %intersectorial% OR %inter sectorial% OR %multidisciplinary% OR %multi-disciplinary% OR %multilateral% OR %multi-lateral% OR %multisectorial% OR %multi-sectorial% OR %multistakeholder% OR %multi-stakeholder% OR %north-south cooperation% OR %official develoment aid% OR %open access% OR %open data% OR %open science% OR %open source% OR %participatory% OR %partnership% OR %public private% OR %public-private% OR %ricyct% OR %south-south cooperation% OR %transdisciplinary% OR %trans-disciplinary% OR %transsectorial% OR %trans-sectorial% OR %triangular cooperation%)</p>