



A hand in a light-colored sleeve points towards the left side of the frame. The hand is positioned over a document with some faint, illegible text. The entire image is overlaid with a gradient that transitions from a light blue on the left to a light purple on the right. In the upper left corner, there is a white hexagonal outline containing the text 'What We Do'.

What We Do

A group of five people are gathered around a table, looking at a large map. The scene is dimly lit with a warm, yellowish light. On the left, a man in a light-colored shirt points at the map. In the center, a woman and another man look on. On the right, an elderly man wearing a traditional Nepali hat (Dhaka topi) and a light-colored shirt is looking at the map. The map shows geographical features like rivers and roads. The overall atmosphere is one of collaborative learning or planning.

Why We Do It

We believe geography can make  
the world a better place

**How do we use  
technology**

Notifications. Fitness.



Social. Breakfast.



Work. Business.



Reading. Bedtime.



News. Commute.





# GIS for Sustainable Development

## Forest Management



## Renewable Energy



## Demographics



## Field Data Collection



## Access to Healthcare



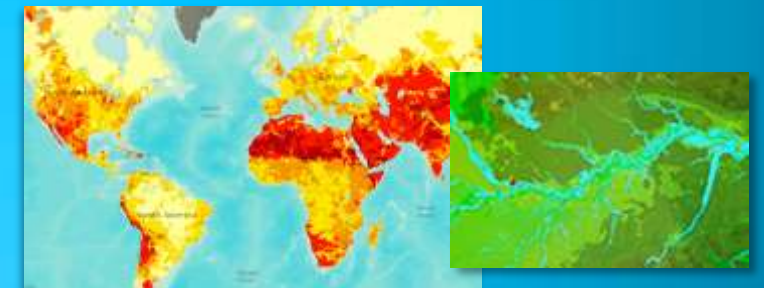
## Urban Design | Smart Communities

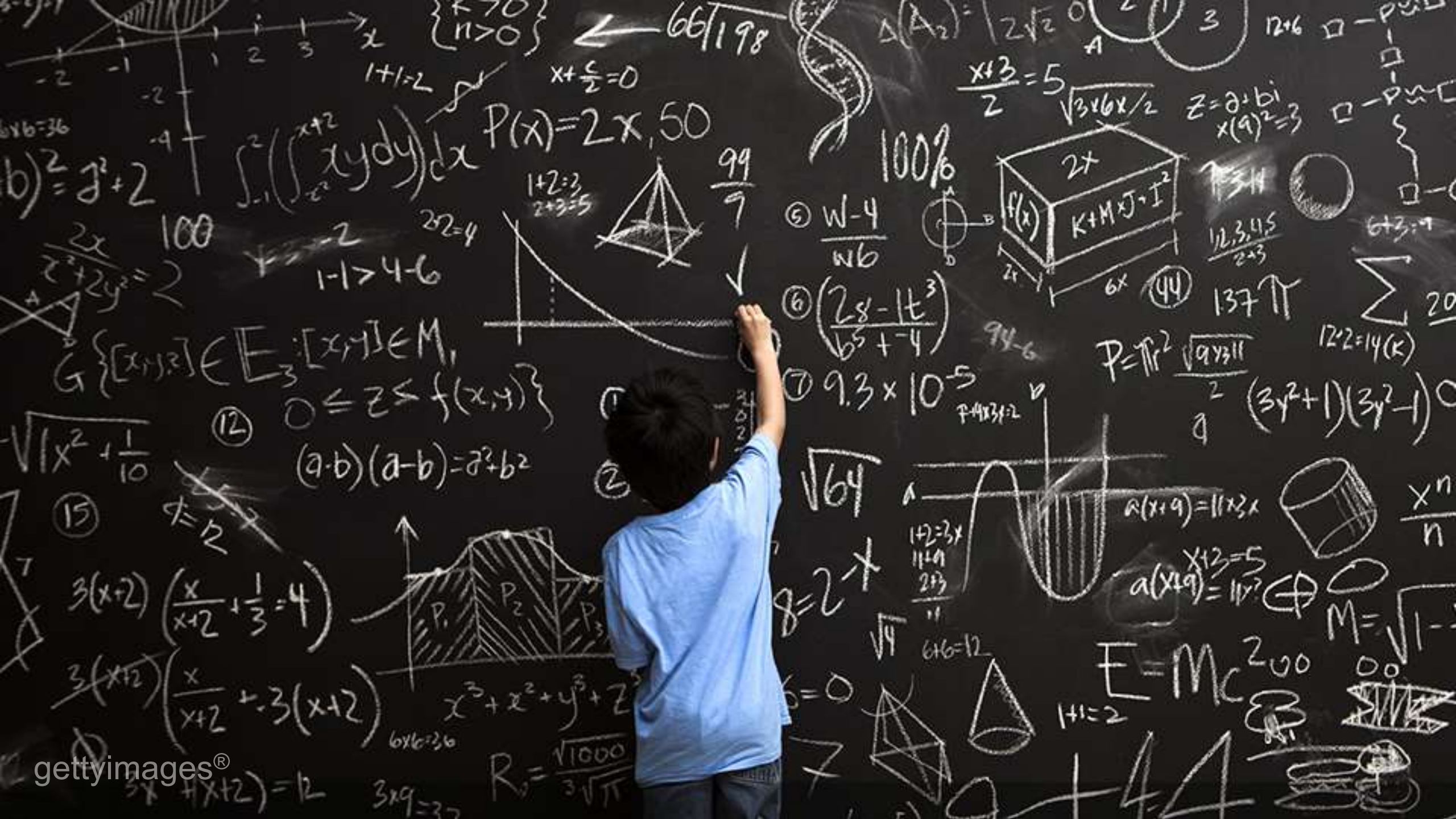


## Access to Education



## Water Management





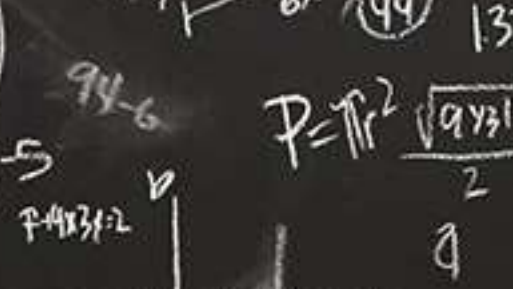
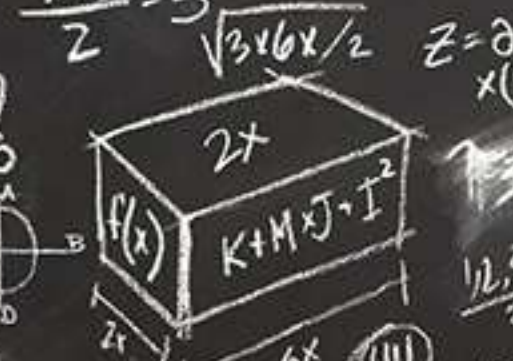
$b) z^2 = z^2 + 2$   
 $\frac{2x}{z^2 + 2y^2} = 2$   
 $100$   
 $1 \rightarrow 4 - 6$

$\int_{-1}^2 \left( \int_{-x}^{x+2} xy dy \right) dx$   
 $1+1=2$   
 $1+2=3$   
 $2+3=5$   
 $22=4$   
 $1-1 > 4-6$

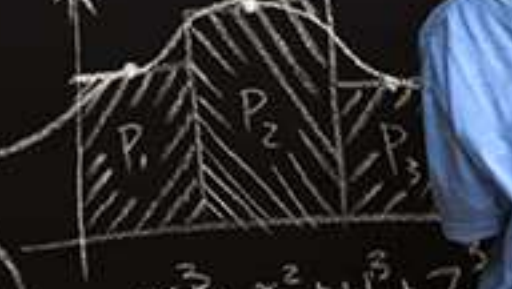
$\left\{ \begin{matrix} x > 0 \\ y > 0 \end{matrix} \right.$   
 $x + \frac{c}{2} = 0$   
 $P(x) = 2x, 50$



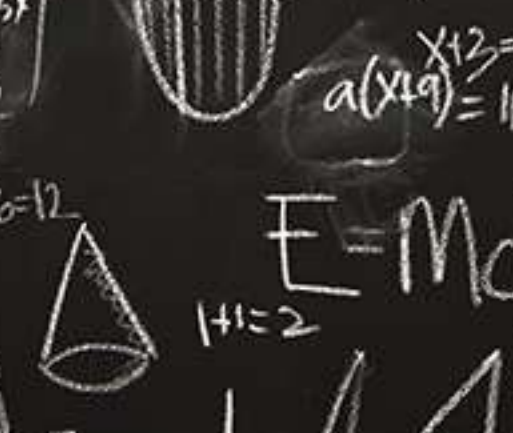
$\frac{99}{9}$   
⑤  $\frac{w-4}{wb}$   
⑥  $\frac{(2s-1t^3)}{b^5 + -4}$   
⑦  $9.3 \times 10^{-5}$   
 $100\%$   
 $z = a + bi$   
 $x(9)^2 = 3$   
 $12+6 \square - p \square$   
 $6+3=9$   
 $\sum 20$   
 $12^2 = 14(k)$   
 $12, 3, 4, 5$   
 $2+3$   
 $137 \uparrow \uparrow$   
 $94-6$   
 $P = \pi r^2 \sqrt{ay^3} / 2$   
 $(3y^2+1)(3y^2-1)$   
 $7+4x^3=2$   
 $12+2=3x$   
 $11+9$   
 $2+3$   
 $11$   
 $6+6=12$   
 $1+1=2$   
 $200$   
 $00$   
 $11 > 0$   
 $3x + x + 2 = 12$   
 $3 \times 9 = 37$   
 $R_2 = \frac{\sqrt{1000}}{3\sqrt{\pi}}$



$G \{ [x,y,z] \in E_3 : [x,y] \in M, 0 \leq z \leq f(x,y) \}$   
⑫  $(a-b)(a-b) = a^2 + b^2$   
⑮  $x = 2$   
 $3(x+2) \left( \frac{x}{x+2} + \frac{1}{3} = 4 \right)$   
 $3(x+2) \left( \frac{x}{x+2} + 3(x+2) \right)$   
 $x^3 + x^2 + y^3 + z^3$   
 $6 \times 6 = 36$   
 $3 \times 9 = 37$   
 $R_2 = \frac{\sqrt{1000}}{3\sqrt{\pi}}$



$\sqrt{64}$   
 $8 = 2^{-x}$   
 $6=0$   
 $7$   
 $9 + 44$





The Goals



# SDG HUB



## The Goals

Dashboards

Narratives

Open APIs

Applications

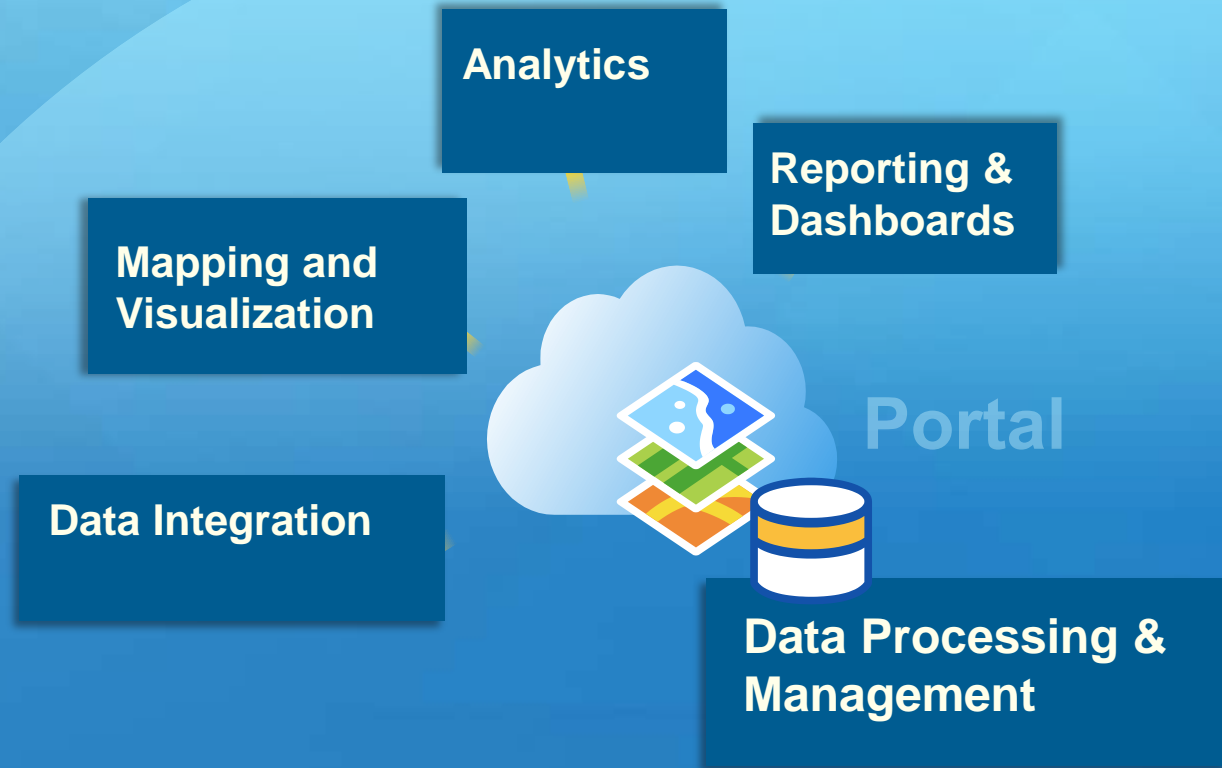
# SDG Hub

No one left behind



# SDG Hub

## System of Engagement Conceptual Architecture



### *Data Model*

- *Administrative Boundaries*
- *Enumeration Area Boundaries*
- *Transportation Network*
- *Rivers and Water Features*
- *Worker Locations*
- *Populations/Counts*
- ...

# SDG Hub

## System of Engagement | Applications and Tools





### Goal 03: Good Health and Well-being

Ensure healthy lives and promote well-being for all at all ages



SDG 3



3.3



Thailand



Admin Level 2

### 3.3

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

3.3.1 Number of HIV Cases



The Epidemic World-Wide Spread of HIV/AIDS



Total Cases (latest yr. avail)

1,474

Total Cases (previous yr)

6,443



### Goal 11: Sustainable Cities & Communities

Make cities and human settlements inclusive, safe, resilient and sustainable



SDG 11



11.1



Global Progress



Global

### 11.1

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

11.1.1 Population Living in Slums (size) vs Total City Population (color)



Average Fine Partic. Matter (PM2.5) Concentration

20.9%

Average Public Outdoor Recreation Space

19.8 m<sup>2</sup>/capita



A story map



## Celebrating Women's Rights

# The Global Goals

The Sustainable Development Goals

A story map



## Celebrating Women's Rights

### Achieving Quality Education

Each additional year of secondary schooling equates to a

**15-20%**

increase in a girl's potential income.

When 10% more girls go to school, a country's GDP increases by an average of

**3%**

#### GENDER EQUALITY

Goal: End all forms of discrimination against all women and girls everywhere.

Goal: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.

#### Gender Parity in Government

**2030**

**ALL GIRLS COMPLETE  
PRIMARY AND SECONDARY EDUCATION**

ZERO HUNGER

DECENT WORK AND ECONOMIC GROWTH

CLEAN WATER

Goal: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

Goal: By 2030, ensure universal access to sexual and reproductive

A story map



## Celebrating Women's Rights

### Improving Literacy Rates

In many parts of the world, especially Africa and the Middle East, women's literacy rates lag significantly behind men's. In Afghanistan, for instance, female literacy is nearly

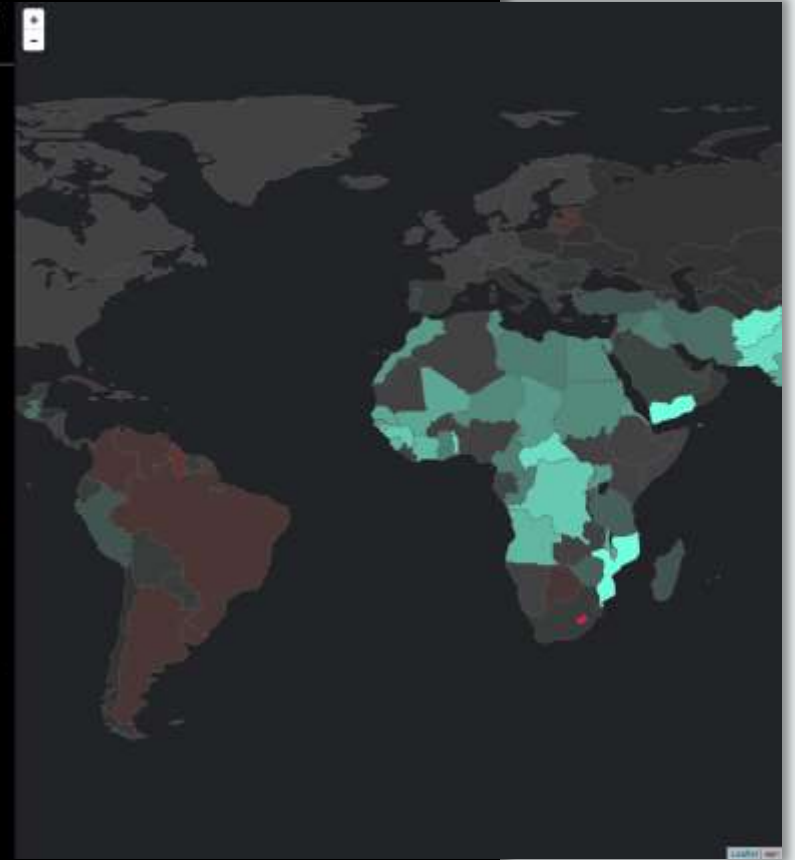
**28%**

lower than male literacy. Women will be unlikely to achieve economic equality if they're unable to attain education levels comparable to men.

#### Secondary School Rates

The ratio of boys to girls in schools varies considerably from country to country. On the map at right, countries shown in blue have an imbalance of male students over female students in secondary schools, red countries have more girls than boys enrolled in secondary schools.

#### Achieving Quality Education



Take Action on the SDGs Sign In ?

< Adam

**Adam**

Name / Organization: Adam

Goal: All

Why?: All of the Goals are great!

Like
Gallery

Esri, HERE, DeLorme, FAO, GEBCO

## Metadata API

An API to retrieve information and metadata on the Sustainable Development Goals

### /goals

parameter	type	description	example
none	null		
ids	Array <String>	return the associated instances for each goal or target	1, 2, 3, 4
targets	Boolean		true
indicators	Boolean		true
includeMetadata	Boolean	returns detailed metadata where available, for each indicator	true

**example**

**request**

`http://localhost:3000/goals?ids=5,12&targets=true&indicators=true&includeMetadata=true`

**response**

```

{
  "data": [
    {
      "goal": 5,
      "title": "Achieve gender equality and empower all women and girls",
      "short": "Gender Equality",
      "colorInfo": {
        "hex": "#ff3a21",
        "rgb": [
          255,
          58,
          33
        ]
      }
    },
    {
      "id": "5.1",
      "title": "End all forms of discrimination against all women and girls everywhere.",
      "goal": 5,
      "indicators": [
        {
          "target_id": "5.1",
          "has_metadata": true,
          "goal": 5,
          "goal_meta_link": "http://unstats.un.org/sdgs/files/metadata-compilation/Metadata-Goal-5.pdf"
        }
      ]
    }
  ]
}

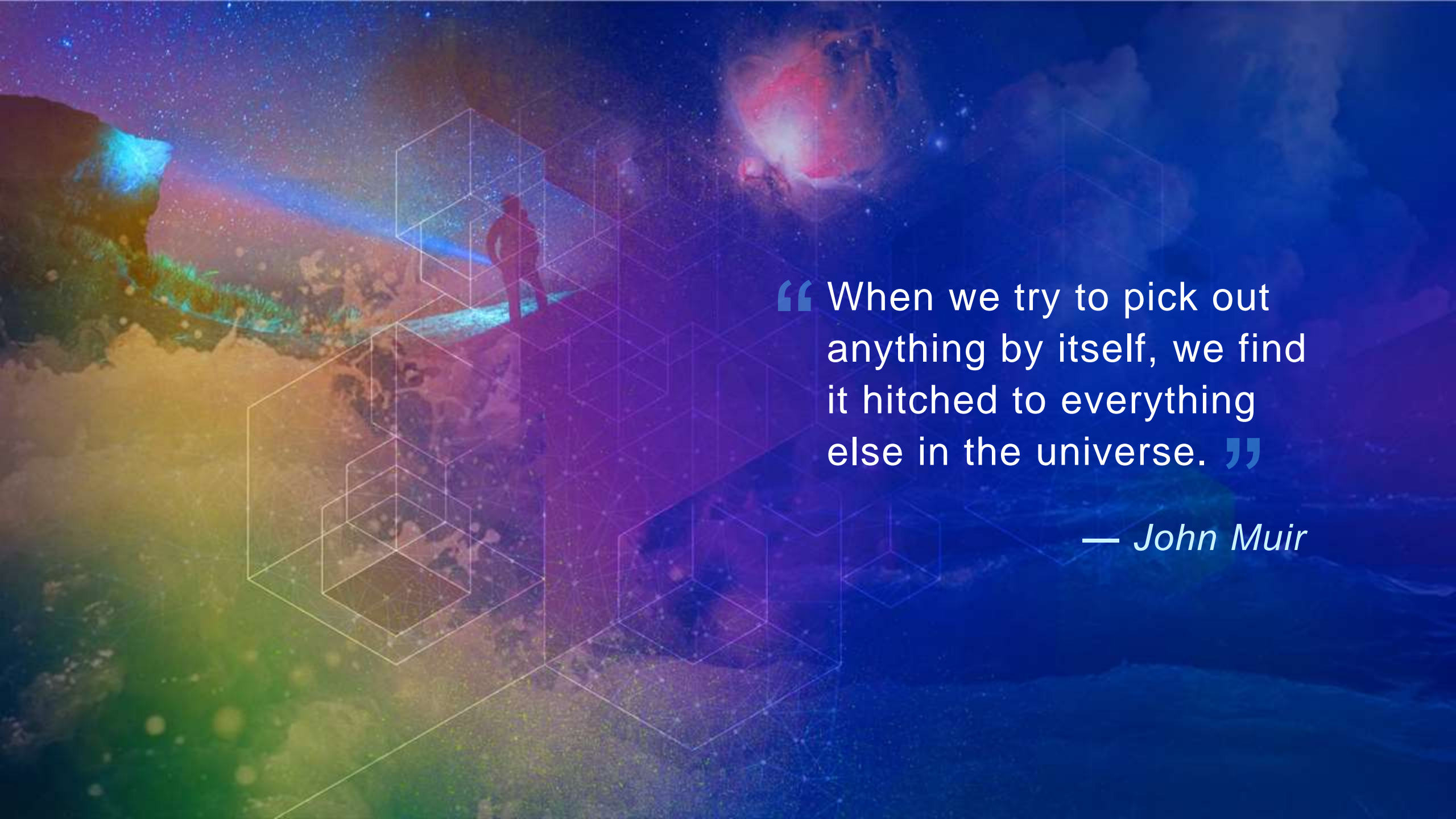
```

# SDG Hub

No one left behind





A surreal landscape with a person on a path, overlaid with a hexagonal grid pattern. The scene is set against a dark, starry sky with a large, glowing red and white celestial body. The ground is a mix of green, yellow, and blue, suggesting a fantastical or alien environment. The hexagonal grid is composed of thin, white lines that create a sense of depth and structure.

“ When we try to pick out anything by itself, we find it hitched to everything else in the universe. ”

— *John Muir*



# Thank you.

Charles Brigham  
cbrigham@esri.com