KNOWLEDGE, INFORMATION AND SDG SUCCESS

Part 1 – Delivering Across the SDGS

International Federation of Library Associations and Institutions

Contents

Introduction 3
Background: Knowledge and Information in the 2030 Agenda 4
Equality and Non-Discrimination (SDG1, SDG5, SDG10) 5
Agriculture, Climate and Environment (SDG2, SDG12, SDG13, SDG14, SDG15) 7
Health, Wellbeing and Essential Utilities (SDG3, SDG6, SDG7) 11
Education (SDG4) 12
Growth, Jobs, Infrastructure and Innovation (SDG8, SDG9) 13
Community and Resilience (SDG11) 15
Institutions, Governance, Justice and Rights (SDG16) 16
Partnerships (SDG17) 18
Conclusion 19

Introduction

Across the UN 2030 Agenda, there is a crucial role for knowledge and information, and their gathering, sharing and application. In addition to the explicit focus on public access to information in goal 16.10 – too often reduced to freedom of information laws, but arguably drafted to be broader – there are references across the rest of the SDGs and the Agenda that contains them.

Yet to what extent are these references filtering down into national implementations of the goals? And how far are Member States, in their efforts to get on a path to sustainable development, incorporating activities and reflections on knowledge and information into their work.

This study aims to answer these questions, based on an analysis of the 38 Voluntary National Reviews of implementation of the Sustainable Development Goals submitted and presented in 2025.

This started with a search for all references to the words 'knowledge' and 'information', or cognates of these (such as informed or knowledgeable). In this first part, these references were then categorised according to different clusters of SDGs. These have been selected in order to bring together similar (and often overlapping) areas, and so to avoid repetition.

- **Equality and non-discrimination** (SDG 1 – No Poverty, SDG 5 – Gender Equality, and SDG 10 – Reduced Inequalities)
- **Agriculture, Climate and Environment** (SDG 1 – Zero Hunger, SDG 12 – Sustainable Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land)
- **Health, Wellbeing and Essential Utilities** (SDG 3 – Good Health and Wellbeing, SDG 6 – Clean Water and Sanitation, SDG 7 – Affordable and Clean Energy)
- **Education** (SDG 4 – Quality Education)
- **Growth, Jobs, Innovation and Infrastructure** (SDG 8 – Decent Work and Growth, SDG 9 – Industry, Innovation and Infrastructure)
- **Community and Resilience** (SDG 11 – Sustainable Cities and Communities)
- **Institutions, Governance, Justice and Rights** (SDG 16 – Peace, Justice and Strong Institutions)
- **Partnerships** (SDG 17 – Partnerships for the Goals)

In each area, there is an exploration of the different ways in which knowledge and information feature in efforts to deliver on relevant goals.

Preceding this is a short background session which sets out the different ways in which knowledge and information figure in the original 2030 Agenda, as agreed in 2015. Part two will then turn to a more thematic analysis of the different dimensions of the relationship between knowledge and information on the one hand, and sustainable development on the other.

Background: Knowledge and Information in the 2030 Agenda

When Member States finalised the 2030 Agenda ten years ago, there was already recognition of the need to focus on knowledge and information. Indeed, at a fundamental level, the idea of fostering 'knowledge societies' is set out as a desirable goal in paragraph 15, seen to be promoted by access to information and communications technology, global interconnectedness, and scientific and technological innovation.

In addition, there is the general call for public access to information in Target 16.10. As previously highlighted, this is often presented as being purely about access to government information, but is arguably broader. Had it been only about government information, the wording would have been 'access to public information', and it would have formed part of Targets 16.6 (transparent and accountable institutions) or 16.7 (participatory decision making). Moreover, the fact that it appears alongside the reference to upholding fundamental freedoms recalls Article 19 of the Universal Declaration of Human Rights, which is not typically interpreted as being limited just to information from government.

However, references go beyond this. The importance of the capacity to generate, work with, and share knowledge and information comes through in the following:

- Increasing scientific knowledge, developing research capacity and transferring marine technology (SDG 14.a)
- Strengthening international cooperation around access to science, technology and innovation, as well as promoting knowledge-exchange (SDG 17.6)
- Building the technology bank and science, technology and innovation capacity-building mechanism (SDG 17.8) – see also paragraph 70, which underlines that this is to be primarily an information-sharing hub.
- Supporting the availability of appropriate knowledge and technologies as well as capacity-building (paragraph 63).
- Building the capacity of national statistical offices and others to work with data and information (paragraph 76).

This also applies when it comes to the ability of the United Nations to track progress against the goals, with an emphasis on the need to bring together existing information sources (paragraph 48), but also the need to build data collection and capacity building to fill gaps, and so inform the measurement of progress (paragraph 57). Indicators, together with regular reviews are highlighted in turn as means of informing follow-up (paragraph 77), with annual progress reports and a Global Sustainable Development Report (paragraph 83) both helping further to turn knowledge into actionable recommendations.

The Agenda also sees knowledge and information (and access to them) as key dimensions of policies elsewhere, notably:

- Doubling agricultural productivity and incomes of small-scale food producers (SDG 2.3)

- Ensuring the proper functioning of food commodity markets (SDG 2.c)
- Ensuring universal access to sexual and reproductive health-care services (SDG 3.7)
- The ability to exploit opportunities and participate fully in society (paragraph 25)
- The capacity to take on productive and fulfilling work (paragraph 27)
- The promotion of sustainable development among learners (SDG 4.7)
- Promoting sustainable practices amongst companies (SDG 12.6)
- The understanding of sustainable development and living lifestyles in harmony with nature (SDG 12.8)
- Conserving at least 10% of coastal and marine areas (SDG 14.5) – it is worth noting here the particular focus on integrating scientific information into implementation efforts
- Delivering on the Global Partnership for Sustainable Development, and collaborating to deliver on the SDGs as a whole (SDG 17.16)

There are also multiple references to information and communications technology, in addition to the general call to increase access to this and indeed provide universal and affordable internet access in SDG 9.c:

- As a key area of training for scholarship students from developing countries (SDG 4.b)
- As a means of promoting the empowerment of women (SDG 5.b)

Finally, it is worth making particular mention of the recognition of the importance of traditional knowledge in SDG 2.5, in this case as concerns the fair sharing of benefits from the usage of this knowledge.

In sum, the 2030 Agenda from the start recognised not just the importance of knowledge and information for development, but also starts to explore the different dimensions of this relationship. From (access to) it being a goal in itself, the Agenda also recognises its direct contribution to around half of the SDGs, and notes the specific place of traditional knowledge.

The following sections then look through the different clusters of goals established in the introduction.

Equality and Non-Discrimination (SDG1, SDG5, SDG10)

This section looks at development targets emphasising the need to leave no-one behind, both through a broader fight against poverty, and through addressing discrimination, both against women and others. In this and in all subsequent sections, page references refer to the relevant national Voluntary National Review.

A first theme that comes up in SDG 1 in particular is that of **access to basic services**. Some countries see access to knowledge as an example of such a service (Belarus, p9, Gambia, p56), while Eswatini includes it as a dimension of its multidimensional

child poverty analysis (p31), and Suriname in its broader poverty measures (p37). Qatar has included accessibility of information systems as a core pillar of its long term strategy (p165). Linked to this is the idea that **vulnerable communities have a right to be able to make informed decisions** and choices appears in a number of VNRs, including in the case of women and girls (Malaysia, p54, Nigeria, p22), and children (Nigeria, p70).

Information and knowledge can also be a **route towards overcoming barriers and inequalities**, such as for newcomers (Czechia, p24, Japan, p75, Malta, p99), women (Dominican Republic p63, India p81, 82), Iraq, Lesotho, p35), women in politics (Papua New Guinea, p28), vulnerable groups needing to manage disaster risk (Malaysia p11).

Japan for example has an information platform for foreigners (p76), while Papua New Guinea notes how access to information is enabling women to start their own businesses (p28). Saint Lucia talks about its Do-Nation Foundation Gender Equality Initiatives which equipped women with the knowledge to be climate advocates (p79). Sudan's Mother and Child Cash Transfer Programme saw cash assistance paired with knowledge and skills around health and protection (p27). Bulgaria (p74) and Malta (p89) both highlight the need to communicate effectively about relevant laws on discrimination in order to help stamp this out.

Conversely, **a lack of information is seen as being a key factor in reinforcing vulnerability** (for older people in Czechia (p45), for the children of immigrants in Finland (p128), and in general in Suriname (p43)). A lack of the necessary access to information for women to make informed decisions around health is a regular theme (Eswatini p58, Ghana, p40, Guatemala, p55)). Those facing multiple issues – such as women with disabilities – can find it particularly difficult to know about their rights and options (Kyrgyz Republic, p123). Similarly, not knowing about social assistance programmes can prevent those who need them from applying (Japan, p176).

In **government** too, information is key for effective efforts to address inequality (Dominican Republic p25, 50, Malta, p161). Gender-responsive budgeting, for example, can only happen with the right information and information management (Ethiopia p70). The training of officials to spot and respond to issues such as gender-based violence is noted in Suriname (p75)

Yet here too, a lack of information has a cost, for example by hiding the true scale of challenges, for example the time spent by women on unpaid labour (Eswatini p71), racism (Finland p29), the scale of abuse (Eswatini p76), human trafficking (Kyrgyz Republic, p87), the situation of the LGBTQ community (Japan, p176), and violence (Indonesia, p58).

The value of **information systems** is made clear, in particular with data disaggregated by gender (Gambia, p18, Guatemala p77, Suriname, p19), for displaced workers (Philippines, p39), and other relevant factors (India, p32). Such systems and the

capacity to work with them are urgent in order to run effective social assistance programmes (Suriname, p47, p80)

Similarly, there is a value in ensuring **stronger knowledge sharing**, given that inequalities can be intersectional. Bulgaria highlights work to share information and good practice about gender equality (p51), while Bhutan underlines that building knowledge is a key part of work to empower persons with disabilities.

Information can also be part of efforts to **promote better behaviours and attitudes**, as in Kyrgyz Republic (p97). At the same time, campaigns need to be tailored to the needs of the audience to be effective (Papia New Guinea, p40, Suriname, p92), and counter misinformation that can lead people not to take up opportunities for support (Suriname, p50).

Another way of driving positive change is through the **direct publication of data**, which is seen as a way of driving awareness and progress on equality issues (Japan, p135), while that on the accessibility of public venues is improving things in Qatar for persons with disabilities (p42)

There is a particular emphasis on the importance of **safeguarding traditional knowledge** as part of broader commitments to support Indigenous communities. Guatemala highlights this, and concerns about knowledge being lost (p52, 57), while India highlights the value of integrating Indigenous knowledge into educational curricula (p31). Suriname underlines the value of recognising the value of and integrating traditional knowledge into broader efforts to support the development of Indigenous communities and avoid leaving them behind (p106), while Thailand too stresses that social development requires the use of local knowledge in problem solving (p75).

Agriculture, Climate and Environment (SDG2, SDG12, SDG13, SDG14, SDG15)

This section looks at those SDGs associated with environmental issues, covering agriculture and nutrition, wider land and marine management, work to mitigate and adapt to climate change, and behaviour changes around consumption.

Mirroring the previous section, the value of **knowledge-based agriculture, climate and environment policies** comes out clearly. In particular, this is the case for policies to address food waste (Finland, p134), climate change adaptation (Israel, p61, Kazakhstan, p176, Saint Lucia, p145), oceans policy (Malta, p125), and Israel even mentions the creation of a resource efficiency knowledge centre to support wider policy (p169). Malta too has an information hub for wine production that aims to help the sector succeed (p41), Suriname one for pineapples (p53), and Thailand for waste (p44).

A particular area of focus is around climate risk management. Knowledge is seen as a key element of any comprehensive and effective policy in Malaysia, especially to the benefit of vulnerable groups (p11). Czechia too stresses that climate change only increases the importance of information sharing (p50), and Lesotho stresses how much timely information can help prepare for disasters (p55).

Key to support this are the **infrastructures and skills to gather and monitor information** is noted in the case of water pollution (Angola, p39), fisheries and life at sea (Bulgaria p93, Finland, p141, Indonesia, p88), early-warning of potential disasters (Eswatini, p121, Ethiopia, p42)), climate change (Guatemala, p14), glacial melt (Kyrgyz Republic, p115), biodiversity (Guatemala, p37, Malta, p131), forestry (Suriname, p137), domestic animals (Malta, p37), emissions levels (Indonesia, p137), waste policy (Saint Lucia, p115).

> *In addition, systems transformation requires cultural change in relation to sustainability orientation, which requires a knowledge base, education, societal dialogue and government leadership. This extends the sustainable development policy framework from government to governance.*
>
> **Finland VNR 2025 (p20)**

Nigeria has a full programme focused on building information and knowledge-sharing in government to make for more effective land and agriculture policies (p93), and Suriname has partnered with Malta to develop training programmes in ocean management to improve policy development (p132). Saint Lucia agrees on the importance of sharing information, noting that a failure to do this so far has limited the effectiveness of policies (p166). Suriname reported on its 6th agricultural census as a way of building an evidence base for future work (p57). The importance of land registration and the management of the resulting information is also recognised (Ethiopia, p116, Japan, p105).

Knowledge sharing between stakeholders is a key part of the wider governance of effective agricultural, climate and environmental policies (Finland, p148). In Japan too, sharing between and communication by government, business and academia is seen as vital (p219). Exchange between banks on carbon neutrality is highlighted in Japan (p206), while Malta talks about supporting intergenerational knowledge transfer between farmers (p39) and Thailand, exchange and learning between waste bank operators. Saint Luca notes structure efforts to transfer knowledge between levels of government (p137). Of course, information is also needed to detect and catch bad practice, as is the case with illegal deforestation in Japan (p162)

Japan highlights Future Earth97 as an international **scientific network** designed to inform better sustainability policies (p219, while Papua New Guinea has a goal to boost innovation and research capacity (p90). Thailand too has made engagement with research centres a key part of the green growth pillar of its national development strategy (p13).

Dissemination of information to the public has long been a part of agriculture policies,. Market information is particularly key for decision-making (El Salvador, p127, India, p56), as are weather forecasts (India, p147), and knowledge about appropriate plant cultivation (Indonesia, p54).

The sharing of knowledge and information is also a core part of efforts to **promote more environmentally friendly behaviour**, which is essential in turn for the achievement of goals here. Efforts here can range from sharing information and building upon this in schools (Belarus, p24), promoting healthy eating (Bulgaria, p37, Japan, p89), fighting food waste (Bulgaria, p83), promoting the circular economy and sustainable consumption (Bulgaria, p152, Germany, p35, Japan, p37, Malaysia, p122, Malta, p127), reducing carbon footprints (Finland, p55), greening the culture sector (Germany, p20), plastics (Saint Lucia, p119). Saint Lucia even carries out climate knowledge assessments (p131).

Tropenbos Suriname is a knowledge-based civil society organization aiming to improve the sustainable use of tropical forests and trees for the benefit of healthy ecosystems, and the well-being of people. The focus is on capacity building, knowledge development, and collaborations with local and international partners. Its work contributes to generating and bringing together different types of knowledge on forests, climate change, ecosystem services, and users of the forest.

Suriname VNR 2025 (p20)

Malta highlights its integration of climate and environment concerns into its curriculum (p131), as has Papua New Guinea (p100), and much of what Saint Lucia is doing is aimed at youth (p136). Suriname is focusing youth outreach on social media, covering climate change awareness amongst other things (p26). Also in Suriname, the Green Heritage Foundation Suriname works to provide education and skills to children and youth (p132). Meanwhile, Bulgaria has used IoT data from landfill to develop environmental literacy in the population (p122).

Linked to the above points, there are worries about **knowledge gaps undermining the effectiveness of efforts in this area**. This applies as much to decisions by individuals (Indonesia, p137, Japan, p67) as it does to those of government (Bangladesh, p52, Czechia, p38, El Salvador, p120, Guatemala, p38, Indonesia, p98). Israel argues that many of its challenges with food waste are linked to a lack of information (p55), while Sudan fears that lack of information will aid the spread of invasive species (p42).

Concerning individuals, there is evidence of a need to ensure that they are better informed. Bulgaria has intensified communication around regulation (p146), while Israel sees information as having a role in tackling illegal fishing (p71). Japan discusses communication about green infrastructure policies (p86). Businesses too, of course, need to know what is expected of them (Saint Lucia, p138)

With much relevant information here held by private actors, there is also a need for rules around disclosure of sustainability data by companies. Czechia highlights the importance of sustainability reporting (p12), as does Japan (p36, p201), while El Salvador includes data about sustainability on products (p93)

However, it is not only the lack of information, but challenges to understanding that arise. The fact that action to achieve agricultural and environmental goals implies the engagement of communities in rural areas raises particular questions about **how to share knowledge and information with communities**. As Finland notes, scientific information alone is often not enough to make change happen (p75). Civil society organisations can help (Bangladesh, p20, Suriname, p200), as can respected and locally anchored individuals (Czechia, p39), and working through institutions such as libraries (Czechia, p41), or faith-based institutions and youth groups (Papua New Guinea, p101).

India has experience of creating specially designed soil health cards to help farmers engage (p160), while Malaysia has developed programmes orientated towards families (p54). Malta has established tailored advisory programmes to help farmers boost productivity and innovate (p40), with Saint Lucia similarly creating a help-desk and distributing tablets (p57). Papua New Guinea has made sure to roll out campaigns in national languages (p101), Suriname's Tropenbos initiative acts as a hub where government, research and communities can meet, while Sudan is continuing to learn about how to improve the sharing and application of scientific knowledge (p43).

Other examples of efforts to translate scientific information into information that can be used by practitioners include work with fisheries (Finland, p141, Israel, p73)), Finland and drought (p109), conservation (Suriname, p131). When the information is not available, investing in research capacities and infrastructures can be a priority (Guatemala, p37, India, p151, 160)).

A particular concern is the risk of **misinformation** around climate and environmental issues, and a need to take action on this (Czechia, p24).

Going from simple behaviour change to full mobilisation, knowledge is also seen as being critical for people to **become effective advocates**. Germany notes work to inform youth as a first step towards them becoming engaged in opinion-shaping (p39), while Malaysia argues that the private sector should help in this regard (p160). Saint Lucia highlights the Do-National Foundation Gender Equality (previously mentioned) which explicitly provides knowledge with a view to get more women and girls engaged in climate advocacy (p79). A support for this comes from applying freedom of access to information principles, as set out in the Escazu Agreement, which Saint Lucia highlights (p153).

Traditional knowledge and practices have a particular relevance for questions around agriculture, climate and environment. Czechia highlights how a combination of this

knowledge as well as scientific insights have served to support organic farming (p50), while El Salvador, Guatemala, Japan and Papua New Guinea also stress the role of traditional insights (p125, p63, p94, p100)).

El Salvador has reached out to communities as part of its National Adaptation Plan in order to collect traditional and Indigenous knowledge that could inform policies and more (p121), while Ethiopia sees the engagement of communities and the contribution of their knowledge as making work on sustainable lake and watershed management a success (p149), a point echoed by India (p35). Malaysia, similarly, works with traditional knowledge to conserve coastlines (p110).

In Guatemala, it is noted, women are the holders of ancient seeds and knowledge, but are too often marginalised (p57), while India is concerned about the erosion of this knowledge (p30). In Papua New Guinea, the erosion of this knowledge is seen as being associated declines in biodiversity (p106). Suriname notes that it can incorporate traditional knowledge far more effectively into climate and food security policies (p57), but notes the good practice of the Green Heritage Foundation Suriname in working with coastal communities (p132)..

Health, Wellbeing and Essential Utilities (SDG3, SDG6, SDG7)

This section turns to questions around quality of life, both in terms of physical and mental health and wellbeing, but also access to key utilities such as water and energy.

There are plenty of examples of **knowledge dissemination representing a core part of policies designed to enable people to take informed decisions about their health** (Bhutan, p19, Malaysia, p54, Papua New Guinea, p29), and that of their families (Bulgaria, p33, Eswatini, p49), their diets (Bulgaria, p37). The same goes for information about available health services (Bulgaria, p42, Nigeria, p54, Philippines (p25).

> *Además, es crucial promover la participación de la niñez en la socialización sobre la salud sexual y reproductiva; especialmente, en áreas rurales con población indígena, donde las niñas tienen menos acceso a este tipo de información.*
>
> **Guatemala VNR 2025 (p66)**

Indeed, a number of 2025 VNRs underline the **connection between a lack of access to health information** and poor health outcomes (Angola, p15, Eswatini, p20, Ghana, p40, Israel, p53, Kyrgyz Republic, p38). This is particularly so when it comes to services for women and girls, including menstrual and sexual and reproductive health (Angola, p19, Guatemala, p55, p66, Indonesia, p62, Lesotho, p44).

Some countries highlight their work to promote healthier living through **education** (Malta, p50), as well as tackling misinformation (Nigeria, p82).

Educational facilities can also serve as locations for engaging with youth, as Papua New Guinea indicates (p39).

There is a broad view **that knowledge dissemination around health is more effective when the way in which knowledge is shared takes account of community needs**, and works with community partners (Nigeria, p23, Papua New Guinea, p39). This is the case for LGBTQ health initiatives in Bhutan (p44) and Japan (p176), outreach to rural communities in Guatemala (p81). The specific needs of the deaf community are highlighted by Papua New Guinea (p38). More broadly, the Federal Institute of Public Health in Germany has as part of its mission to communicate with the public in an accessible way, alongside information gathering (p19), while Suriname is using social media (p26).

Within government the value of **health management information systems** is clear (Bhutan, p45, Gambia, p13, Ghana, p41, Indonesia, p19, 32, Lesotho, p37, Kyrgyz Republic, p42, Micronesia, p61, Nigeria, p62, Philippines, p21, Seychelles, p31, 197, Sudan, p8). Eswatini names health information systems as one of six blocks of their overall health system (p51). Kazakhstan focuses a little more, talking about a single information service for mental health (p75), and Suriname about perinatal health (p59). Outside of infrastructures, supporting health workers with to develop their own knowledge and information is highlighted in Suriname's VNR (p109).

So too is a stronger infrastructure for **gathering information to inform policy** (Dominican Republic, p51). There is more that can be done to draw on research, making sure that this finds its way into decision-making (Israel, p84, p86). Indonesia and Suriname highlight the value of real-time information sharing (p40, p60). Japan has created a knowledge hub for universal health coverage (p9), while Malaysia uses regular health surveys (p154).

Turning to **water and energy**, and as has been clear in previous sections, the importance of drawing on local knowledge to find and exploit local energy sources is clear (Bulgaria, p125). This can combine with national information systems to enable better policy making (Suriname, p83, p218), and help achieve goals like progress towards eradicating malaria (Suriname, p63). There is also value in better information sharing in general to help households make better choices around water and energy use (Malta, p79).

Education (SDG4)

This section focuses on just one SDG – SDG4, focused on equality education. In this section, we also cover references to life-long learning and youth.

The **role of education in sharing and building knowledge** appears frequently. There are plenty of examples across the 2025 VNRs of initiatives designed to provide new and useful knowledge to students (such as around space technology in Bhutan, p68),

or the difference that connectivity can make (Indonesia, p118, Seychelles, p74). It is also worth looking back to the previous section on health in order to note the different ways in which knowledge supports child and youth health, enabling people to take their own decisions.

Looking beyond these, one observation that appears a number of times emphasises that **youth need to be informed** in order to be engaged (Bulgaria, p110, Germany, p39, Japan, p68, Qatar, p37, Suriname, p26). There is, understandably, a particular focus on the SDGs, and exploration of how sharing knowledge about these can support youth to become mobilised around these. Bulgaria talks about the value of measuring knowledge here as a preface for action (p110).

But beyond knowledge and information themselves, there is also recognition of **the importance of the skills to work with them**. Czechia has made this part of its new Framework Educational Programme, with a particular emphasis on digital and information literacy. (p34). Israel has done the same, helping teach young people about safe internet use (p12), while Malta collects data on levels of information and data literacy and looks to improve these (p53, p161).

Papua New Guinea notes that youth are often held back from using online opportunities due to a lack of digital and information skills (p40), underlining that this is an area where further focus will be necessary. Seychelles is already active her, having come to the same conclusion (p35). The need to understand financial information in particular comes out as a specific area of focus (Malta, p54, Seychelles, p101)

Such activities are not limited to schools – Czechia has mobilised its libraries to spread information literacy skills in communities (p35). The Kyrgyz Republic notes the need to invest in early years to support school readiness (p45)

Once again, and looking at **how to implement policies effectively**, the value of information systems comes through in a range of the responses (Malaysia, p48, Micronesia, p60, Qatar, p86, Suriname, p69). Israel presents its AVODATA portal which brings together information that can be helpful for vulnerable populations in particular (p18). The Kyrgyz Republic shares information about accreditation to help potential students make choices. Also as a relevant topic for policy effectiveness, Japan brings up the topic of protecting the rights of the child, noting that policies to implement this only work with the necessary information base (p65).

Growth, Jobs, Infrastructure and Innovation (SDG8, SDG9)

This section looks at those SDGs most strongly focused on the economy, including goals concerning labour markets, as well as drivers of growth such as innovation and infrastructures.

Looking first at policies intended to promote growth, a regular theme is that countries aspire to be **knowledge-based economies** (Bangladesh, p72, Belarus, p28, Dominican Republic, p136, Japan, p148), Papua New Guinea, p90), Qatar (p16)

Similarly to this, the logic of **building up human capital** through access to information comes through also (Angola, p6, Bhutan, p52, Malta, p52, Qatar, p39). Suriname adds to this the importance of investing in good market information in order to help buyers and sellers across the economy to make better choices (p98).

On the employment side, Iraq sets out in broad terms the role of knowledge in **helping people to find suitable work**. More specifically, careers information is an important element of this, helping individuals to broaden their horizons and find work that matches their skills and potential – this can be particularly important for marginalised groups (Bulgaria, p73). Israel highlights their AVODATA portal, also mentioned in the previous section, which aims to reduce information gaps in education and employment for all.

Similarly, programming to support **entrepreneurship** is typically has an important pillar focused on access to knowledge (Bangladesh, p24, India, in particular for women, p82, Kazakhstan, p129), Nigeria (p23), Seychelles (p114). Suriname shares data indicating that after access to finance, it's access to knowledge that is the second biggest barrier to entrepreneurship development (p92). Thaiand's drive to promote green growth similarly has a major knowledge pillar (p34).

As in all other sections so far, the importance of good information systems to support **policy effectiveness** appears in the VNRs of Bangladesh (p68), Ethiopia (p112), Micronesia, p65), Nigeria (p85), Philippines (p39, p45), Qatar (p149), Seychelles (p107), Suriname (p92). Attached to this, better information gathering is seen as a priority in Seychelles (p120).

Moving beyond employment concerns, there is also an emphasis on the need for knowledge in order to boost **innovation** in national economies (Guatemala, p78). Papua New Guinea has also created a knowledge hub in order to support research and innovation in the country (p86), and Qatar reports on its work to become a knowledge and innovation hub (p98),

Attached to this, a number of countries highlighted interest in doing more around knowledge transfer (India, p172, Israel, p46). Malta too is looking at how to get knowledge from academic institutions into the market (p151). Qatar's report underlines the emphasis it gives to applied research (p98), as does Thailand's (p50, p75).

These bring up the question of how to **ensure that economies and individuals are ready to embrace new technologies** and realise their potential – a goal pursued by Japan. (p47) and Malta (p54). Sometimes this can be down to a lack of basic knowledge and misconceptions (Japan, p195, Kyrgyz Republic, p78, Nigeria, p40,

Suriname, p152), sometimes simply due to poor connectivity (Micronesia, p39). In particular, through its Ekiti Knowledge Zone, Nigeria is working to overcome this to the benefit of young people in particular (p89), with Seychelles having a similar focus (p35), and Suriname's initiatives focused in particularly on women and girls (p80)

Some VNRs highlight work around **connectivity**, as well as the importance of keeping digital and information infrastructures safe (Bhutan, p68). The Kyrgyz Republic talks about the prevalence of ICT skills in the economy as a whole (p46), and Papua New Guinea welcomes the impacts of access to ICT on wider policy goals such as women's health (p29). Qatar too has worked to integrate ICT more effectively into education at all levels (p80). Qatar highlights its wider ICT Accessibility Policy, designed to make Qatar's cities and wider infrastructure more open to all (p165), as well as its focus on making sure that technology works in ways that are beneficial for society (p228). Saint Lucia too is developing a Science, Technology and Innovation Policy that will cover these same issues, notably integrating work on skills (p100).

> It supports the goals of QNV 2030 and the Digital Agenda 2030 by ensuring that all members of society, including persons with disabilities, can equitably access digital services and urban information systems—further enhancing the inclusiveness and resilience of Qatar's cities and communities.
>
> **Qatar VNR 2025 (p165)**

Finally, **tourism** also falls under SDG 8, and indeed Seychelles; VNR underlines the need to gather information about this in order to make the right policy decisions (p105, p137)

Community and Resilience (SDG11)

This section again focuses on just one SDG – SDG 11 – but one that is certainly highly relevant for libraries given the focus (in particular of public libraries) on sustainable urbanisation and inclusive development at the local level.

Knowledge and information also have a major role to play in **enabling effective regional and local governance**. Ghana recommends investment in local data infrastructures, and in quality of data to enable decision-making (p112), while Israel is focused on developing knowledge hubs in each region (p42). The Philippines see the importance of bringing data together at the local level to take better informed policies (p74), and India calls for more geographical information systems to enable planning (p129). Other areas cited as benefitting from better information gathering and tools include housing (Czechia, p69), and social and civic participation (Qatar, p165).

Belarus highlights the platform it makes available allowing evaluation of how well regions are doing against the SDGs (p8), while Czechia's is more for sharing between local governments (p71). The Dominican Republic aims to allow for coordination

between levels of government (p92), as do Japan and Malaysia in cities (p224, p93) and the Kyrgyz Republic's in rural areas (p73). Conversely, as Suriname underlines, a lack of access and sharing can undermine the effectiveness of policy (p92).

There is recognition that the need to work on the capacity to integrate knowledge and information into decision-making may be higher at the local and regional levels than at the national (Israel, p61). Japan has specifically been looking at how to build bridges between municipalities and researchers, for example around the impacts of demographic change (p8). The Philippines suggest investing in skills among local elected officials and staff in order to help them do more with knowledge (p20), as does Suriname (p117), and Thailand suggests more can be done to stimulate the academic sector to look at relevant questions for local governments (p75).

Turning to the perspective of individuals, information can also be vital for people to be **aware of their rights** and what they are entitled to, for example around housing (Malta, p98), and broader planning (Thailand, p70).

There have already been references to the importance of **local and traditional knowledge** in previous sections, but Israel's VNR does note the relevance of local knowledge, and the need to respect the importance of this (p44). Thailand echoes this point, highlighting how it can enable better policy-making (p75). Saint Lucia also raises this, but more in the context of the risks of loss of traditional knowledge due to disasters (p135), while Suriname too underlines the need to respect and protect knowledge (p105).

> *The institutional capacity and the knowledge on how to apply the spatial planning standards and guidelines in all relevant sectors needs to be build, and is an important precondition to reach the objectives*
>
> **Suriname VNR 2025 (p117)**

SDG11 also covers questions of **resilience and disaster risk reduction**. Japan underlines how vital information is in the aftermath of a catastrophe (p9), and has a strong knowledge pilar in its national resilience plan (p79). Malta stresses the place of information in raising awareness of disasters (p120), and Suriname and Thailand the need to have structures for sharing in such a situation (p117, p79).

Finally, SDG11 covers **heritage protection**. Suriname notes how efforts here benefit from effective information sharing (p116)m and notes work by the Green Heritage Foundation Suriname to educate and empower societies around working with traditional knowledge (p132).

Institutions, Governance, Justice and Rights (SDG16)

One of the key cross-cutting goals is SDG 16, which focuses on getting the right governance and legal frameworks in place for successful pursuit of the Sustainable Development Goals.

In references to knowledge and information within these, there is a strong **focus on freedom of information laws**, as a means of providing greater transparency into government activities, and so accountability. Indeed, knowledge is seen as essential for civic and democratic participation (Bulgaria, p115).

Bulgaria shares metrics around response rates to freedom of information requests (p102), as does El Salvador (p108), Ethiopia (p161), Ghana (p102). Meanwhile the Dominican Republic (p122), Finland (p28), India (p165), Israel (p94), Kazakhstan (p33), Malaysia (p130), Malta (p136), Qatar (p23), Seychelles (p169) and Thailand (p70) all underline an investment in updating laws here. Israel indeed has a knowledge hub on freedom of access to information (p188), while Saint Lucia notes its signing of the Escazu agreement (p153).

Outside of pure government data, the importance of **private sector disclosure of information** has been highlighted previously. This can be essential in order to allow for accountability and better policy making. The Dominican Republic underlines this point (p99), as do Japan (p201) and Malaysia (p117).

Looking more broadly, Angola focuses on the value of a d**ynamic wider information environment**, supported by growth in private media and social media (p45), as does Indonesia (p143). Finland highlights efforts to ensure that parties and citizens are fully informed before elections (p25), noting that for democracy to work, people need to have a good knowledge of society (p28). Malta notes that an informed public can drive tangible reforms (p161).

There is also the role of **information and information infrastructures in the rule of law**, for example to understand if provisions are being applied (Bulgaria, p104, Malta, p137, p140, Nigeria, p83, Philippines, p48). The same goes for information about rights in the first place (Kazakhstan, p50), housing rights (Malta, p98), migrant rights (Malta, p99), LGBTQ rights (Malta p98). Qatar notes work to build a centre focusing on the rule of law and anti-corruption processes through developing specialised knowledge (p29).

A particular focus is on the **importance of information for victims of crime**, to help them cope and find redress (Bulgaria, p104, Kyrgyz Republic, p40, Malta, p65, p138, Suriname, p75). The Kyrgyz Republic also notes efforts to share information about the functioning of the judicial system in order to boost transparency (p138). Malta also underlines the importance of sharing laws in child-friendly formats (p141).

The impact of **disinformation** – and the need to tackle this – is also clear. Czechia includes a significant section looking at this, noting the risk they pose to social cohesion and trust in institutions (p34). Finland too cites the fight against disinformation as key to broader wellbeing (p162). Indonesia mentions work here (p143), while Malaysia broadly commits to working on the integrity of information (p144).

From the perspective of **good governance**, it has been clear in many of the previous sections that the ability to access, organise and use information is key for effective policy making. Angola underlines this connection (p50), as does Bulgaria (p131), Czechia (p16), the Dominican Republic (p139, p160), El Salvador (p20), Ethiopia (p29, p140), Finland (p21), Ghana (p108), Guatemala (p30), India (p32), Indonesia (pv), Iraq, Malta (p148). Qatar (p13). Saint Lucia (p6), Seychelles (p22).

In particular, in this context, having **means of sharing information** effectively and securely matters (Indonesia, p116, Israel, p9, Nigeria, p10, Seychelles, p48). Ensuring that this data is sufficiently disaggregated is also highlighted as a priority (Suriname, p19). Similarly, and echoing points made in previous sections there is also recognition of the need to do more to integrate scientific outputs into policy decision-making (p68).

Partnerships (SDG17)

In this last section, we look at SDG17 – Partnership for the Goals – which includes a range of targets focused on different aspects of the capacities needed to deliver on the 2030 Agenda. At a high level, both Angola (p50) and Suriname (p208) present **knowledge management as a key capacity** needed for progress, and on which they are seeking to improve performance.

Looking at **partnerships** in general, Bhutan for example presents its Agenda Chikha as a model of inclusive partnerships, in which knowledge sharing and building plays a core role (p66). Ethiopia also cites partnerships as facilitating knowledge exchange for development (p127), as do Guatemala (p13), Japan (p218), Malaysia (p161), Micronesia (p50), Suriname (p104), and Thailand (p47). The role of civil society organisations is also recognised in enabling the gathering and dissemination of knowledge by Ghana (p118) and Thailand (p70), while Micronesia also proposes a national development platform as a knowledge infrastructure for partnerships (p43).

There is also a key knowledge element to **international partnerships** focused on building capacity for development, closely linked to the target for knowledge transfer under SDG17. For example, Bhutan cites its MoU with a Japanese technology institute which has facilitated knowledge-sharing, including with students in the country (p68).

Ethiopia celebrates exchange between developing countries to help find and share solutions (p136), as does India, which sets out the goal of being a knowledge partner for poverty reduction (p50). Japan talks both about international knowledge sharing on disaster risk reduction (p152), and its support for knowledge exchange between African cities (p153). Seychelles gives the example of an international project on Climate Transparency, focused on information gathering and sharing (p148). Others talking about such partnerships include Papua New Guinea (p101) and Suriname (p151).

A specific form of international partnership with an important knowledge element is highlighted by Ghana, which mentions how connections with the Ghanaian **diaspora** helps bring ideas and insight to the country (p74). Seychelles similarly highlights its efforts in this area (p119). Another is the work of inter-governmental organisations as spaces for exchange (Kazakhstan, p215).

SDG17 also covers the role of **humanitarian and other development assistance**. Papua New Guinea underlines how important information can be in enabling this to have a maximum impact (p35), and presents the Aid Information Management System that it has established (p114), as does Seychelles (p57). It also notes that a key way in which donors can help is through building capacity for knowledge transfer, given the lasting positive effect that this can have (p122).

Conclusion

Across the examples set out above, two main conclusions can be drawn, first of all that there is a clear and significant role for information and knowledge across the full range of SDGs.

Secondly, this role is diverse, but crucially, there are also some common dimensions to the relationship between knowledge and information, and sustainable development.

These include the role of information in enabling governments to take the best possible decisions, how it can serve to create new possibilities for individuals and communities, and the role of traditional and local information. There are also commonalities in questions around how knowledge is shared, and in particular how it is transferred and translated in order to become applicable. The need for effective knowledge management and knowledge gathering mechanisms.

The implication of this is that may well be opportunities to take a joined-up approach to making the most of knowledge in order to accelerate the achievement of the SDGs. This is a question of knowledge skills, knowledge institutions, knowledge infrastructures, and above all, knowledge professionals.

These are relevant at all levels, from the librarians and analysts in government departments who are working to ensure that data is managed and applied, to academic and research librarians who both support research and facilitate its dissemination, the public library workers who ensure that their buildings can serve as places where everyone in the community can make the most of knowledge, and the school librarians who build basic and information literacy.

Part 2 of this study will look across the 2025 Voluntary National Reviews from this more thematic perspective, drawing out more about these different dimensions and

how they illustrate the value of a joined-up approach to knowledge and information in order to achieve sustainable development.