

Oman

Update on the context and situation of children

2020 proved to be a year of tremendous change in Oman which saw the country adjust to new political and economic realities in addition to the impact of COVID-19.

Sultan Qaboos, Oman's ruler for almost 50 years, died in January 2020. He was replaced in a smooth transition of power by Sultan Haitham. Sultan Haitham expressed commitment to continuing his predecessor's policies of economic diversification, fiscal reform, and to the development goals outlined in Vision 2040.

As globally, the COVID-19 outbreak dominated the Omani context throughout the year. The pandemic presented some challenges to programming, and some disruption to the provision of vital services during the initial lockdown and as schools, businesses and government shifted to remote working.

The Government completed E-Census 2020 updating the 2010 statistics. [1] At the end of 2020, the population stood at 4.47 million, up from 2.77 million a decade ago. Of those, 2.73 million (61 per cent) were Omanis and 1.74 million (39 per cent) were expatriates. The population of nationals remains relatively young compared to the expatriate population, with 46.6 per cent of Omanis under 20 years of age, compared to 9.6 per cent of expatriates.

Oman's GDP per capita stood at \$15,343.1 at the end of 2019, placing the country in the high-income category. Oman ranks 60 on the Human Development Index, indicating *very high human development*. The country's economy is highly dependent on oil and gas, contributing about 75 per cent of Government revenue. The drop in oil prices since mid-2014 already placed Oman's economy under pressure. But the collapse in prices in March 2020 coupled with the economic fallout from the measures to contain the spread of COVID-19 has caused an economic crisis in the Sultanate. This has called into question the sustainability of Oman's expenditure model, including allocations for universal coverage of health, education and social protection. In a *COVID-19 Opinion Poll*, conducted by the National Center for Statistics and Information, 1 in 5 Omanis noted that they, or a family member, had been economically affected by the pandemic.

Prior to 2020, Oman had already embarked on a programme of fiscal reform with plans for the introduction of 5 per cent VAT in April 2021 and income tax in 2022. Underscoring this commitment to cutting spending and greater fiscal discipline, the Government in April 2020 announced a 10 per cent budget cut across all ministries. This was followed in August 2020 by Sultan Haitham's announcement of a massive overhaul of government structures with the aim of streamlining and professionalizing the government, improving its performance, and placing the economy in sharper focus.

The year saw the official publication of the Government's Vision 2040 document, with the initiative coming into effect in 2021. Vision 2040 stresses the importance of investing in human capital and a commitment to empowering "women, children, youth, persons with disabilities and the most vulnerable groups."

The Impact of COVID-19

Following the Government's imposition of lockdown measures in March 2020, the Ministry of Education quickly launched TV lessons for students in Grades 11 and 12 to mitigate the impact on learning. However, a number of challenges quickly became evident.

- o Not all children in Oman have access to the internet; those that do may not have electronic devices – especially children in large families who must share with siblings.
- o Some parents lack the capacity to support distance learning. The most vulnerable children – those with disabilities or in rural locations – are likely to be disproportionately disadvantaged.
- o The education ministry was slow in providing children in Grades 1 to 4 access to online material, resulting in learning delays.
- o The material provided was not always accessible to children with disabilities, for example TV lessons lacked sign language.
- o According to the *COVID-19 Opinion Poll*, 32 per cent of respondents noted that the education of a family member had been negatively affected. Other services also suffered disruption:
- o While child protection services continued in all governorates throughout the period through dedicated child protection committees, identification of vulnerable children was disrupted because schools are an important milieu for this process.
- o The closure of early child development centres, including nurseries and kindergartens, meant that very young children were deprived of early learning and stimulation in this setting. ECD closure also put additional pressure on working parents – especially mothers – who had to juggle childcare and jobs.
- o The closure of rehabilitation facilities also disadvantaged children with disabilities.
- o Healthcare facilities continued to operate but some lower-priority services were scaled back – for example, no postnatal services except in the case of serious complications.

Schools reopened on 1 November 2020 with the Government designating the 2020-21 academic year a “hybrid learning” year. Grade 12 students are attending school in-person fortnightly, while learning at home during alternate weeks. The education ministry in October 2020 predicted that 82 per cent of study would be through distance education, 10 per cent through blended education, and 7 per cent through physical attendance. Anecdotal evidence from service providers and parents suggests that the shift to learning online has resulted in increased cyber-bullying. Bullying was already a concern prior to the pandemic; 29 per cent of students reported having been bullied per month according to the *TIMMS 2015 Report*.

The pandemic has highlighted the need for an expansion of mental health services. Of the *COVID-19 Opinion Poll* respondents, 58 per cent said their mental health had suffered due to social distancing measures to a very high or high degree; with females reporting a higher impact than males. Young people in the 18-29 age bracket are most affected.

The Government initiated a number of shock-responsive social protection measures to mitigate the effects of COVID-19. This included obliging companies to pay full salaries to workers in quarantine and increasing food subsidies. A fully-fledged redesign of the social protection system is underway to alleviate the impact of austerity measures on the most vulnerable groups.

[1] The 2020 E-Census relied on administrative data rather than data collected from households.

Major contributions and drivers of results

The COVID-19 outbreak required readjustments to meet head on the significant challenges to programming as well as some disruption of access to much-needed services.

At the onset of the pandemic, the Programme Management Group (PMG)[1] conducted an in-depth review of the workplan to assess the impact of the crisis on children, young people and women, as well as on programme implementation. The result was clear priorities and mitigation measures put in place

for a pragmatic way forward.

UNICEF Oman worked alongside Government and the United Nations Country Team to support Oman's national preparedness and response plan, with the overall aim of stopping transmission of the disease and ensure care for those affected. UNICEF Oman assumed responsibility for risk communication and community engagement (RCCE) and social and behaviour change communication (SBCC). Separately, and at the request of the Government, UNICEF provided strategic communications support to the Supreme Committee for COVID-19.

Despite the impact of COVID-19, UNICEF Oman and its partners managed to accelerate gains towards achieving progress on prioritised outcome areas:

- Outcome 1. Enhancing children's potential: By 2021, children of all ages have more equitable access to quality services in protection, education and health, and enhanced opportunities to realize their full potential.
- Outcome 2. Making data work for children: Data disaggregated by age, sex, disability, governorate and income are used effectively in planning, monitoring, policy and practice related to children and the Sustainable Development Goals.

Results achieved in 2020 ensured better outcomes for children in Oman, in line with UNICEF's Global Strategic Plan Areas 1, 2, 3 and 5, the Convention on the Rights of the Child (CRC) and the Convention on the Rights of Persons with Disabilities (CRPD), and the 2030 Agenda.

Efforts focused on continued demand for and access to quality services during COVID-19, including in protection, learning, and responsive caregiving, further ensuring that the most vulnerable children – including those with disabilities and those affected by violence – are supported in reaching their full potential. Importantly, UNICEF Oman was able to link work under the COVID-19 response with ongoing long-term strategic initiatives to build institutional capacities and ensure enduring positive results for children, beyond the outbreak.

A wide range of strategies were employed to achieve at-scale results for children, aimed at addressing equitable financing for quality social services, institutional capacity and policies, and behavioural and social norms. UNICEF Oman focused on strategic, high-impact interventions that can have catalytic effects and have strong synergies with wider reform efforts outlined in Oman Vision 2040.

UNICEF Oman worked on harnessing the power of evidence generation and advocacy to impact change for children. An economic analysis was undertaken to assess the impact of the dual shock of the sharp decline in oil prices and COVID-19 containment measures on the economy and social sectors. The analysis provided insights into several potential scenarios and policy options to inform Government decisions on the impact of the economic decline and associated fiscal deficit on social services. These findings were integrated into a Fiscal Space Analysis, which provides projections on the available fiscal space for children in the medium to longer term and is aligned with the assumptions that underpin Oman's Medium-term Fiscal Plan 2020-2024. This work lays the foundation for provision of credible and concrete financing options to underpin high-quality and sustainable social services with a specific focus on early child development, inclusion of children with disabilities, and more recently, social protection.

In partnership with UNFPA, UNICEF Oman initiated a Situation Analysis of Adolescents and Youth, which will inform cross-sectoral programming for young people. In conjunction with a Generation Unlimited (GenU) landscape analysis and investment case planned for 2021, it will also inform establishment of a GenU Coalition in Oman. In the study, gender is a major lens through which the analysis is being conducted. The work will be led by the recently established Ministry of Culture,

Sports and Youth, which will ensure that findings inform development of national youth programming.

Winning support for the cause of children from decision makers and the wider public using an integrated advocacy approach, the UNICEF brand was strengthened through social and traditional media. With many aspects of professional and personal life migrating online, the office's social media channels came into their own in 2020 and became more than ever a key tool for pursuing communications and advocacy work. UNICEF Oman's Twitter, Facebook, Instagram and LinkedIn accounts ballooned from the overall shift online with all accounts adding a huge number of followers as UNICEF Oman continued to advocate in support of children and young people.

UNICEF Oman continued to develop and leverage partnerships to elevate children's issues to a higher level and achieve better outcomes. Partnerships were expanded with government, civil society, the private sector, as well as academic institutions. This has resulted in enhanced support for the children's agenda in Oman and supported much-needed interventions to address the impact of COVID-19. World Children's Day was celebrated online, but UNICEF Oman was nevertheless able to use its social media channels to mark the occasion and increase awareness of child rights.

Before restrictive measures were imposed, two key events offered important advocacy and community outreach opportunities. At the Muscat International Book Fair, UNICEF Oman and Children First Association highlighted children's rights to access useful information – in line with the 2030 Agenda and the CRC – and the importance of staying safe online.

The 1st Gulf Autism Conference was an opportunity to advocate for an integrated approach to inclusion of children with disabilities. With the support of the ministries of social development and health, Sultan Qaboos University, and the GCC Gulf Health Council, over 1,900 local and international specialists, academics, and parents of children with autism attended the event. UNICEF Oman supported workshops on early identification, intervention and inclusion of children with outcomes and recommendations being fed into the disability classification system that is being developed. The autism conference helped stimulate and increase discussion and awareness around disabilities more generally with at least one partner – Oman Airports – approaching UNICEF since then to activate activities in this area.

A high-ranking Omani delegation participated in a Voluntary National Review (VNR) Lab organized on the sidelines of the United Nations High-Level Political Forum to share experiences about and advocate for preparing a child-sensitive and child-inclusive VNR (which it had done in 2019).

To support young people and children as agents of change and to foster innovation for children, UNICEF partnered with Oman Technology Fund to organize the COVID-19 Youth Technology Challenge. The Challenge empowered 140 young females and males from across the region to design technological solutions to mitigate the impact of COVID-19 on their lives. The challenge catalysed the development of 60 projects to tackle the challenges facing today's young people and which have been exacerbated as a result of COVID-19: accessing quality education, learning essential skills, and landing a decent job.

Goal Area 1: Every Child Survives and Thrives

IECD is a key programme area that aligns with Oman's commitment to SDGs 2, 3, 4 and 5, as well as national development plans.

The closure of all education facilities in March 2020 required a re-focusing of UNICEF Oman's work as the Government asked for support for the safe re-opening of ECD centres and nurseries. Working with the ministries of social development, health and education, the World Health Organization (WHO) and nursery representatives, UNICEF developed re-opening guidelines to ensure that the benefits of ECD services could be realised while at the same time minimising the risk of additional

COVID-19 infections in the community. The guidelines were informed by a careful risk-based approach to maximize the educational, developmental and health benefits for children, while minimizing the potential for new COVID-19 infections within the community.

Following their endorsement by the Minister of Social Development and the Supreme Committee, the guidelines have been widely disseminated and are now being implemented at facilities. This has allowed facilities across the country to re-open safely and has contributed to meeting child wellbeing goals. Ultimately, the work has also contributed to building institutional capacity at the Ministry of Social Development, which oversees this sector, with the establishment of monitoring systems (including the creation of sub-national teams), monitoring tools and the introduction of regular monitoring milestones. UNICEF Oman will provide support in implementing the guidelines and deploying the monitoring tools in 2021.

At the height of the lockdown, UNICEF Oman launched a social media campaign – #parents4parents – with the aim of raising awareness about positive parenting practices and supporting parents during lockdown. Influential Omani and expat parents submitted short videos for dissemination on UNICEF Oman’s social media channels offering tips and sharing their experiences.

Goal Area 2: Every Child Learns

UNICEF Oman closely engaged the Ministry of Education around the re-opening of schools. Advocacy focused on the need to reach vulnerable groups, such as children with disabilities; the importance of community involvement around the closure and re-opening of schools; and the need to prioritize mental health and psychosocial (MHPSS) services. As a result of these advocacy efforts, the Ministry developed an online questionnaire for parents in Oman, seeking their inputs on the return to classroom learning and hybrid alternatives. More than 52,000 parents responded.

Prioritizing the population’s mental health, UNICEF Oman and the Government added a MHPSS component to the case management system. Building on resources provided by UNICEF, the Ministry of Education developed guidelines for provision of counselling and MHPSS services within the school environment with the objective of reducing stigma, providing caregivers with useful tools to support students, identification and referral of cases, and promoting positive experiences for students online. In 2021, school nurses and social workers from the ministries of education and social development will be trained in the basics of mental health and the provision of psychosocial support to children.

With the aim of enhancing the quality of education, promoting adolescents’ social engagement and assisting school-to-work transition, UNICEF Oman initiated the development of a *National Framework for Life Skills*. The framework will be aligned with the four dimensions of the MENA LSCE Framework. Meanwhile, an Inclusive Education Teacher Training programme has been incorporated into existing professional training programmes at the Ministry of Education Specialised Teacher Training Institute. Under the Public Finance for Children initiative, work continued towards the development of a costed national action plan for the inclusion of children with disabilities in the mainstream education system. The plan will build on the economic analysis and FSA with the aim of safeguarding equitable access to education.

Goal Area 3: Every Child is Protected from Violence and Exploitation

Protection of children from violence is a national priority that aligns with the National Childhood Strategy 2015 – 2024, the Child Law as well as the country’s commitment to international conventions and SDGs 1 and 10.

To strengthen systems and services for vulnerable children, a cross-sectoral case management system for well-coordinated care in IECD, protection and inclusion of vulnerable children, was established with support from UNICEF Oman in 2018 and has since entered into a pilot phase. Throughout 2020, UNICEF Oman and the Pilot Monitoring Team, a technical committee representing the ministries of health, education and social development, continued to oversee implementation of the pilot. UNICEF

Oman and the Government adapted the system to ensure continuity of services in the context of COVID-19. This included building the capacity of 23 male and female social workers in remote case management, enabling them to address gaps brought about by COVID-19 and the associated lockdown. Continued coaching of social workers also resulted in their better understanding of the case management tools and will support them to effectively perform a wide range of duties. Social workers were also kept abreast of child protection developments by establishing an information-sharing platform.

To institutionalize training activities over the long term, development of an accredited training programme was initiated in close consultation with local universities. The ultimate aim is to bridge capacity gaps and to ensure an efficient and effective case management system.

Goal Area 5: Every Child has an Equitable Chance in Life

Work continued on development of a unified disability classification system, to further strengthen data for children with disabilities and ensure that they are identified at an early stage. Efforts were invested into additional adaptation of tools, and the development of an associated training guide for their roll-out and institutionalization within the Ministry of Social Development. The work envisions a disability classification system based on a holistic model of disability across the ministries of education, health and social development in an effort to address the barriers impeding results for children with disabilities. It will also ensure that children with disabilities are accurately captured in routine data collection, informing coverage and quality of specialised care and education services.

A service mapping tool to assess the *Availability and Readiness of Equipment and Services* for children with disabilities was developed. This will support data gathering at governorate level to provide a complete picture of local authorities' capacity to provide equipment and deliver services, thus illuminating any gaps in these capacities. This will support the government in sub-national planning, tailored budgeting of services, and prioritization of resources.

Cross Cutting Work - SBCC

At the start of the outbreak, the Government quickly developed a population-wide communications strategy focusing on prevention and containment measures. But as case numbers rose among Oman's 1.7 million expat workers, the Government approached UNICEF Oman for assistance in targeting this hard-to-reach section of the population, many of whom do not speak Arabic or English. A strategy to reach this group was developed and tailored content was disseminated in 10 languages via SMS text notifications and trusted community influencers.

UNICEF Oman and the Government also developed a tailored RCCE Parenting strategy to address the secondary impacts of COVID-19, providing parents with access to credible information in areas such as health (including mental health), nutrition, online safety and child protection. Areas of focus were identified through evidence generated by the Government throughout the year, such as the COVID-19 Opinion poll referred to earlier, and which highlighted the significant impact of the pandemic on mental health or difficulties arising through online learning. Weekly social media listening reports helped identify areas of particular public unease; the team subsequently developed messages addressing those topics. Areas of focus included: the re-opening of nurseries and places of worship; COVID-19 vaccines; and gathering safely. Social listening also identified misinformation which were then also addressed.

A newly established cross-sectoral SBCC Task Force – with representatives from the ministries of information, health, education, social development and the National Center for Statistics and Information – helped to maximize the outreach and impact of campaigns.

To address sub-optimal parenting practices, work continued on the long-term SBCC programme and significant progress was made towards the development of a cross-cutting SBCC strategy and plan in

the areas of health, nutrition, responsive caregiving, child protection, early learning and inclusion of children with disabilities. The strategy builds on evidence generated in 2019 on community perceptions across these themes. Findings indicated a lack of awareness around IYCF and limited recognition of stunting and wasting, demonstrating the need to raise awareness and educate caregivers about the importance of child feeding. Studies also confirmed that bullying in schools occurs, particularly against children with disabilities, stressing the need for anti-bullying programmes. Involving fathers more in child rearing and upbringing was also highlighted as important. Multiple ways in which girls and boys are treated differently were also revealed.

UN Collaboration and Other Partnerships

Throughout 2020, UNICEF Oman strengthened government partnerships to support interventions addressing the impact of COVID-19 and to continue delivering at-scale results for children.

UNICEF Oman maintained close relations with the ministries of education, health, social development, and the National Centre for Statistics and Information through the PMG. The establishment of the SBCC Task Force helped deepen existing cooperation and expand engagement with new partners, such as the Ministry of Information. Most notably, the PF4C work fostered closer relations with the Ministry of Finance and the *Tawazun (fiscal balancing) Initiative*.

[1] Government committee mandated to develop a medium-term fiscal consolidation plan to address the budget deficit. .

A new partnership was forged with the recently established Ministry of Culture, Sports and Youth to advance Oman's youth agenda. Evidence generation activities were prioritized during 2020 with plans to establish a GenU Coalition under the Ministry's auspices in 2021.

UNICEF Oman also collaborated with the Oman Technology Fund to organize the COVID-19 Youth Technology Challenge. This close collaboration has resulted in the establishment of a sound basis for future joint endeavours to promote tech and innovation. UNICEF Oman also successfully involved the government and private sector in the event by inviting ministers and influential private sector partners to join the panel of judges.

Continued engagement with the private sector through bilateral partnerships and the UNICEF Business Leadership Circle (BLC) resulted in strengthened advocacy around COVID-19 and ensured that the child rights agenda remained central. The BLC is also providing guidance on the new country programme 2022-25 – which has a greater focus on young people and labour market skills – and the PF4C work. BLC members contributed to discussions about the different funding sources available to augment service delivery for children.

At the start of the outbreak, UNICEF Oman participated in a United Nations Country Team exercise to harmonize efforts to jointly support Oman's national preparedness and response plan. UNICEF Oman is also working with WHO to strengthen health financing. Here, UNICEF Oman has a role to play in monitoring the impact of changes in health financing arrangements on children through budget, cost effectiveness, cost efficiency and equity analysis. This will be used to enhance budget submissions for the Ministry of Health as well as for the ministries of education and social development, which will have similar technical support through UNICEF Oman.

Together with UNFPA, a Situation Analysis on Adolescents and Youth to inform cross-sectoral programming for young people was initiated.

[1] Programme steering committee comprised of representatives from the ministries of education, health, social development, and the National Centre for Statistics and Information.

Lessons Learned and Innovations

While COVID-19 brought about significant challenges to programming in-country due to lockdown, and led to the disruption of access to much-needed services (including learning and protection), it also created opportunities for UNICEF Oman to work in a high-income context in innovative ways and lay the foundations for accelerating results of existing initiatives. Support for development of guidelines for the safe return of children to ECD facilities and nursery schools, support for RCCE and strategic Government communications in the area of COVID-19, as well as support in the area of PF4C,

highlighted UNICEF's strategic and technical relevance in a high-income context and has won UNICEF Oman considerable regard from the Government

1. Emerging priorities under the COVID-19 response allowed UNICEF Oman to strengthen institutional structures that will have a lasting positive impact.

UNICEF Oman was able to link work under the COVID-19 response with ongoing long-term strategic initiatives to ensure enduring positive results for children, beyond the pandemic. For example, work to re-open ECD facilities and nursery schools built on the IECD model for service delivery that the office supported in 2019 and which was validated by the Government. The IECD model advocates for the establishment of a system of regulations to ensure that the quality of services offered in ECD facilities meets agreed standards and that these are consistently monitored, regardless of geography or sector. To achieve this, a strong governance and monitoring structure must be in place. In developing the guidelines, UNICEF was able to strengthen approaches and structures to accelerate the implementation of the IECD model.

The re-opening guidelines provide clear directions for ECD staff and outline their responsibilities to operate facilities safely and minimise the risk of COVID-19 transmission. Taking a holistic approach and with the aim of upgrading existing standards, the SOPs also consider the multi-faceted impacts on young children, especially the most vulnerable, and the support that may be required in relation to protection, psycho-social assistance, health, and other issues that may emerge and need to be addressed due to COVID-19 confinement measures. This approach will be of benefit to children's development, beyond the pandemic, as facilities take a more comprehensive approach to child-wellbeing.

Meanwhile, the work has contributed to the building of institutional capacity at the Ministry of Social Development, which oversees this sector. Monitoring systems, including the creation of sub-national teams, monitoring tools and regular monitoring milestones, were established. Gains made towards strengthened monitoring systems for ECD facilities and nursery schools as a result of the safe re-opening work are key to enhanced ECD services in country going forward. Ongoing capacity-building efforts in this area will also contribute to this.

2. COVID-19 has provided UNICEF Oman with an opportunity to engage further in the PF4C space as safeguarding investment in child-related services, with the aim of supporting human capital formation, has become all the more important.

UNICEF Oman engagement in PF4C work comes at an opportune moment. Vision 2040, which the government will start to implement in 2021, sets out the ambition for a future with a diversified economy with decreased reliance on hydrocarbons and highly developed human capital. This work has become even more relevant given the new economic realities characterized by the crash in oil prices and the impact of COVID-19 control measures, compounded by the global economic slowdown.

Government buy-in for this work has grown since the start of the pandemic. The Government views UNICEF Oman's economic analysis and FSA work as an opportunity to assess the impact of COVID-19 on social services and explore opportunities to bridge the funding gaps in priority areas – early child development, children with disabilities, youth programming, and social protection – that are in line with the national development plan.

3. The pandemic re-enforced the need to strengthen cross-sectoral collaboration. This is expected to strengthen cross-sectoral programming going forward.

The pandemic re-enforced the need for close coordination to allow for a quick scale-up of the COVID-19 response, and to ensure guidelines, approaches and communication are aligned across

sectors. At the national level, the Government established the *Supreme Committee for the Prevention of COVID-19*, with which UNICEF Oman engaged closely to ensure tailored and contextualized programming.

At the level of the UNICEF Oman Programme, the Programme Management Group (PMG), comprised of representatives from the ministries of education, health, social development, and the National Centre for Statistics and Information, acts as a steering committee. The PMG continues to be instrumental in resolving many obstacles in programme implementation. It has also promoted more efficient cross-sectoral linkages and facilitated the endorsement of more progressive interventions. The establishment of the SBCC Task Force, under the PMG, to support cross-sectoral implementation of RCCE strategies and creation of the ForOmansChildrens hashtag, as part of a national campaign, helped deepen existing relationships and encouraged closer cooperation. It also helped to expand engagement of new partners – as such the Ministry of Information may be considered as the lead partner for UNICEF Oman in its advocacy and communication efforts going forward. The establishment of the Task Force, for which terms of reference were developed and validated, will ensure that SBCC work beyond COVID-19 is coordinated across sectors to ensure maximum impact and synergies.

Similarly, the expansion of partnerships under the PF4C programme is considered a positive step. During the reporting period, a concrete PF4C partnership with the Ministry of Finance and relevant line ministries was established. As noted above, the Government, particularly the Ministry of Finance, recognizes UNICEF Oman as a strong partner, with an important role to play in evidence-backed advocacy for the protection of social sector services delivery.

4. Community Engagement (two-way feedback mechanism)

Social media channels have provided a space for the community to engage with the Government. And it has become apparent, especially over the course of 2020, that there is a huge appetite to engage not only with Government but with agencies such as UNICEF. This is an important opportunity to increasingly engage with the general public and establish feedback mechanisms to feed their perspectives into programming.