



TOO HIGH A PRICE TO PAY

**The Cost of Conflict
for Syria's children**

ACKNOWLEDGEMENTS

This report was co-written by Frontier Economics and World Vision International. Frontier Economics undertook the original economic research within this report. World Vision International engaged Frontier Economics as experts in economic analysis to assess the cost of the Syrian conflict. World Vision International is a Christian relief, development and advocacy organisation dedicated to working with children, families and communities worldwide to reach their full potential by tackling the causes of poverty and injustice. World Vision International is dedicated to working with the world's most vulnerable people. World Vision International serves all people regardless of religion, race, ethnicity or gender.

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CHILD AND ADULT SAFEGUARDING CONSIDERATIONS

We ensured safe and ethical participation of children when they shared their stories and surveys were conducted remotely to adhere to COVID-19 preventive measures, in line with World Vision's safeguarding protocols. Names of children have been anonymised and changed to ensure confidentiality. All photos were taken and used with informed consent.

Cover photo: Photo: Manu Abdo ©World Vision. Thirteen-year-old Dara* had family and friends in Aleppo. "After the airstrikes intensified in my hometown, I went to the camp in a bus with my parents," she says. Her parents separated shortly after their arrival at the Bab al-Salama border, where Dara now lives with her grandparents.

FOREWORD

Children can be astoundingly resilient, but in Syria they have faced 10 long years – 3,653 days – of relentless injury, death and destruction. Thanks to a decade of war, they have lost their education, safety, family income and their hope in a peaceful future.

Over the past year, the COVID-19 pandemic has left many of us struggling with restrictions of personal freedom, a lack of access to essential services, economic uncertainty, job losses, ill health and the loss of loved ones. Imagine these last 12 months being repeated over, and over again for another nine years. The thought is just too terrible to comprehend, and this does not even come close to what the children of Syria have had to endure for 10 long years.

Today, Syria is one of the worst places in the world to be a child. Close to 600,000 people, including 55,000 children, have been killed, half the population displaced, and a child's life expectancy has been reduced by 13 years.

Keeping the persistent horror of what is happening in Syria in the headlines and holding the attention of decision-makers, politicians and donors is critical. None of us should remain silent. This report uses an evidence-base to show the *incredible loss of human capital* in Syria as a result of a continuous cycle of grave violations against children, heavy economic costs and shattered opportunities for future generations.

Our data shows that the economic cost of conflict in Syria is estimated to be over \$US1.2 trillion, almost equal to the European Union's budget for a decade. Yet cumulative humanitarian aid to Syria is just 1.6 per cent of this economic loss.

Even worse than the financial losses is the fact that we are on the brink of trapping a whole generation of Syrians in a cycle of poverty and

violence. In North West Syria every single girl we spoke to for this report lives with the fear of being raped and sexually assaulted. Child marriage continues to increase alarmingly¹.

For this report, we asked children and young people what they wanted, now and in the future, and listened to their suggestions and solutions for making their ambitions and dreams a reality once peace is achieved. Theirs is a simple message: *"Please. Stop the war. Let us return to our homes". "Help us build schools, hospitals and houses for ourselves. Let us play and live in peace, by ending war."*

They want change, and they need us – the global international community – to be the change.

World Vision was founded 70 years ago in response to the Korean War. Then, as now, we seek to save lives and livelihoods, end all forms of violence and bring hope and opportunity to all children. Seventy years later and war is still with us, yet we have learned that by exposing the true horrors of conflict, advocating for peaceful durable solutions and the rights of children, and walking alongside communities at every step, we can turn tragedy into hope and opportunity. World Vision's global campaign, *It takes a world to end violence against children*, is doing just that – igniting movements of people committed to making this happen.

Countries can and do rise again, and with your engagement and support we are confident that the children of Syria *will* live a life in all its fullness once again.



Eleanor Monbiot

Regional Leader
Middle East and Eastern Europe Region
World Vision International

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Maria Bou Chaaya ©World Vision. Here is seven year old Nadia following World Vision Lebanon staff around during the WASH team distribution of bleach and sanitising products to her family and the families of the informal tented settlement where she lives in Beqaa, as part of the COVID-19 response.

GLOSSARY OF TERMS

- **Cost of War** - In economic terms, the cost of war is the reduction of economic activity (measured in terms of GDP) caused by the war, for example as a result of disrupted activity and damage to productive infrastructure.
- **Cumulative cost of war** - The cost of war added up over a period of years. If the cost is US\$100m per annum, then after five years the cumulative cost will be US\$500m.
- **Child marriage** - Child marriage, or early marriage, is any **formal marriage or informal union where at least one of the parties is under 18 years** of age. Forced marriages are marriages in which one and/or both parties have not personally expressed their full and free consent to the union. A child marriage is considered to be a form of forced marriage and a form of violence against children.
- **Durable solutions** - A durable solution is achieved when internally displaced persons or refugees no longer have specific assistance and protection needs that are linked to their displacement status and can enjoy their human rights without discrimination resulting from their displacement.
- **Forced displacement** - The involuntary or coerced movement of a person or people away from their home or home region. Forced displacement can occur across national border, and within the borders of the person's own country.
- **Gross Domestic Product (GDP)** - The total monetary value of the goods and services produced by an economy, giving a measure of national economic output.
- **Global poverty** - Global poverty is defined as the number of people worldwide who live on less than US\$1.90 a day. A person surviving on less than US\$1.90 a day lives in extreme poverty, as defined by the World Bank.
- **Grave Violations of Children's Rights** - The United Nations has defined six grave violations against children in armed conflict, including killing and maiming of children, recruitment and use of children, sexual violence against children, attacks against schools or hospitals, abduction of children and the denial of humanitarian access. The first UN Security Council resolution on children and armed conflict was adopted by the United Nations Security Council in 1999.
- **Human capital** - Human capital consists of the knowledge, skills, and health that people accumulate throughout their lives, enabling them to realise their potential as productive members of society, as defined by the World Bank.
- **Humanitarian access** - Mandated by the United Nations General Assembly in resolution 46/182, humanitarian access refers to a two-pronged concept, comprising humanitarian actors' ability to reach populations in need, and the affected populations' access to assistance and services. Full and unimpeded humanitarian access is a fundamental prerequisite to effective humanitarian action, especially in situations of armed conflict.
- **Safe, voluntary and dignified return** - A humane and dignified manner for a migrant to return to one's country of origin, whatever the reason may be, including a rejected or withdrawn application for asylum.
- **Unilateral coercive measures** – United Nations defines “unilateral coercive measures” as economic measures taken by one state to compel a change in the policy of another State. Examples of such measures include trade sanctions in the form of embargoes and the interruption of financial and investment flows between sender and target countries. More recently, so-called “smart” or “targeted” sanctions such as asset freezing and travel bans have been employed by individual states in order to influence persons who are perceived to have political influence in another State.
- **Under-5 mortality rate (U5MR)** - The probability of a child dying between birth and the fifth birthday, given as a number in every 1,000 live births.

EXECUTIVE SUMMARY

An entire generation of children has been lost to the conflict in Syria. Today, Syria is one of the most dangerous places in the world to be a child. During 10 years of war, close to 600,000 people, including 55,000 children, have been killed. Nearly 12 million people, half the population, have been forced from their homes, displaced inside their own country or across its borders. Children and their families live in constant fear of violence that threatens death or sexual assault, particularly against women and girls. COVID-19 has made this dire situation so much worse, with predictions the pandemic may push Syrians to the brink of mass starvation.

This report reveals the devastating economic cost of conflict for Syria, including the impact of violence and forced displacement resulting in limited access to education and healthcare, as well as dire psychosocial effects, on children. The scandalous cost of this conflict over the past decade equals \$US 1.2 trillion in lost GDP. Even if the war ended today, by 2035 the economic repercussions of the war would equal an additional \$1.4 trillion in today's money. That rises to up to nearly \$1.7 trillion if we figure in that children whose education and healthcare have been negatively affected will contribute less to GDP once they are working adults.

These new economic findings have been further validated by a World Vision survey of nearly 400 Syrian adolescents and young adults in North West Syria, Lebanon and Jordan revealing the tremendous human costs of conflict. The burden of recovery after a protracted war is inevitably heaviest on those who were children, or were born, during it. By depriving children of education and by damaging their health, the war jeopardises the ability of Syria to recover. More importantly, the impact of war and violence on children's psychosocial well-being is immense.

Children and young people we spoke to are clear on what they want – an end to war in Syria. Syria's youth want to protect the future of the generation coming after them, which they fear is also on the brink of being lost. They do not want promises, but a concrete and realisable commitment that can help them to restore their country, their lives and their hopes.

The findings of our report show that ultimately Syria's children will bear the cost of conflict in Syria.



“You should have asked if there is anything that isn't scaring or worrying me! But being uneducated scares me the most, as well as having an unknown future in an unknown destination.”
(Lara, 17, Lebanon)

KEY FINDINGS

US\$ 1.2 trillion

The cumulative economic cost of conflict in Syria after 10 years is estimated to be over **US\$ 1.2 trillion**,² which almost equals the European Union's budget over a decade³

Even if the war stopped today, the cumulative economic cost will continue to be paid to the tune of an additional **US\$1.4 trillion** in today's money through to 2035

US\$ 1.4 trillion

US\$ 1.7 trillion

Factoring in the negative impacts on children's health and education brings the additional cost up to **US\$1.7 trillion**.

Over the last 10 years, cumulative humanitarian aid to Syria has been a mere portion of the cost of war - **US\$19.4 billion**⁴ - just **1.6 per cent** of **US\$1.2 trillion**. It is clear that life-saving aid alone cannot be the solution

1.6 per cent

Life expectancy reduced by 13 years

The conflict in Syria is one of the deadliest for children and the most destructive in comparison with other protracted crises. A Syrian child's overall **life expectancy** has been reduced by **13 years**. Enrolment in primary and secondary school has dropped by 21 and 28 percentage points, respectively⁵.

SUMMARY RECOMMENDATIONS

The Syrian war is an indictment of the international community and its failure to take responsibility to ensure the protection of a lost generation of children who bear the greatest cost of this conflict. Together with the children of Syria, World Vision continues to call for the only viable solution – a lasting peace, accompanied by fully funded sustainable and durable solutions to realise full rights for Syrian children.

The international community must:

FUND SUSTAINABLE SOLUTIONS FOR CHILDREN

- **Step up donor efforts and renew financial commitments** on a multi-annual and flexible basis, and fund continued lifesaving, protection and resilience support to achieve durable solutions for children
- **Invest in cash and voucher programming (CVP) as a core tool** that increases the dignity of aid and empowers parents to make the most appropriate use of resources to support their children
- **Fully support Lebanon and Jordan Compacts and expand stock of capital** to enhance the skills of local refugee workers and to strengthen the ability of refugees to access the formal economy
- **Review and address the negative impact of sanctions on civilians in Syria** in accordance with the Recommendations of the Special Rapporteur on the Negative Impact of the Unilateral Coercive Measures⁶
- **Support a dialogue track based on community consultation inclusive of displaced children, women and youth** to develop a joined up, funded 'programme of action' on durable solutions to guide decision-makers across the peace-building, humanitarian, human rights and development spheres in Syria.

PROTECT THE CHILDREN OF SYRIA

- **All parties to the conflict must immediately cease grave violations against children's rights**, and be held accountable by the international community for violations those parties have committed. Without accountability, any chance of reconciliation and peace will remain elusive
- **Humanitarian actors must expand mental health and psychosocial support programs (MHPSS)** for children, include these as an important element across education, child protection and health sectors, as well as integrate MHPSS as a core component of durable solutions frameworks
- **All governments that are hosting refugees and asylum seekers must uphold non-refoulement**, end deportations to Syria and explicitly limit any coercive measures which incentivise return⁷
- **The international community must step up their commitments on resettlement** of Syrian refugees, especially children, in line with the Global Compact on Refugees.

INTRODUCTION

Today Syria is one of the most dangerous places in the world to be a child – a devastating reality affecting millions of children. An estimated 55,000 children have been killed since the conflict began.⁸ Half the population has been displaced – 6.2 million people within Syria, and about 5.6 million outside the country, most in neighbouring Lebanon, Jordan and Turkey. About 40 per cent of those displaced, both in Syria and beyond, are children.⁹ The overall civilian death toll from this war is estimated to be close to 600,000.¹⁰ For Syrian children surviving the conflict, overall life expectancy has been reduced by 13 years.¹¹

World Vision's assessments in North West Syria indicate that every single girl we spoke to lives with the fear of being raped and sexually assaulted.¹² Child marriage, which can result in significant physical and psychological harm and abuse, has increased to an alarming level¹³.

Children who survive the air strikes, barrel bombs, ground attacks and siege strategies, consistently face an unsafe reality and an uncertain future. An estimated 82 per cent of children recruited by armed actors have been used in direct combat roles and 25 per cent of those recruited children have been under the age of 15 years.¹⁴ At least 1,435 schools and hospitals have been attacked, preventing children from the most basic rights

of healthcare and education.¹⁵ Family loss and separation, attacks on safe spaces intended for play or care, the experience of conflict and repeated displacement, and the trauma of bearing witness all carry an immeasurable burden on the current and future generation of Syrians.

In 2016, we warned that five years of conflict had already cost Syria US\$275 billion in lost growth, and that the cost of conflict could rise to as much as US\$1.3 trillion if it continued until 2020¹⁶. In 2021, as the war rages on, we revisited these numbers to see if today's reality matched the disconcerting projections made back then. Sadly, it does. Moreover, this time we were able to calculate the additional cost of Syria's lost human capital – the potential of its children, who have lost out on prospects for their future through lack of education and healthcare, adding to the mounting cost of war for their country.

The brutal reality is that we have lost a generation. Young people who lived through 10 years of war as refugees in Lebanon and Jordan, and those displaced in North West Syria told us they felt that there was little hope for their future.

We pray that the economic losses and the human cost of war described in this report, will move all parties to this conflict towards the path of peace.

REPORT OVERVIEW

World Vision has taken a three-step approach in this report. First we assess the grave violations of Syrian children's rights over the last 10 years. While it is hard to quantify the cost of such horrendous violence just in Syria, World Vision knows that violence against girls and boys has significant economic costs for individuals and societies, and that globally, violence against children is estimated to add up to US\$7 trillion annually.¹⁷ The impact of violence on children's psychosocial well-being is immense, diminishing their human capital potential.

The second part of the report focuses on the economic analysis. At this 10-year point, we show that achieving anything like the standard of living Syria would have known without a war will be extremely difficult, even if the war were to end today. We examine the direct cost of lost education and health opportunities for children, and the impact this will have on Syria's recovery. The third section of the report will spotlight that which is unquantifiable - the ambitions

and dreams of the children who are the single greatest asset for recovery, sustainable and durable solutions for their country. Based on discussions with 379 boys and girls inside Syria, Lebanon and Jordan¹⁸ we relay their views and recommendations for change to the world in their own words.



"I wish I was better educated and had a home here; by now I would have been a useful member of my society,"
Rawan*, 18, displaced Syrian girl in North West Syria.



Elias Abu Ata ©World Vision. Children at World Vision's child and adolescent friendly spaces in Jordan.

Grave Violations of Children's Rights: A Collective Failure, A Future Cost

The conflict in Syria has been defined by the egregious perpetration of grave violations of children's rights, reflecting a collective failure to protect the most innocent. The picture painted through the UN monitoring of grave violations demonstrates the compounded cost in lives and futures for Syrian children, but only shows what is believed to be the tip of the iceberg.

Child casualties in Syria are among the highest in modern conflicts; attacks on education and healthcare, a defining feature of the war, the most consistently pervasive globally since 2014. Both of these grave violations have the most devastating direct and long-term impacts on child survival and overall socio-economic cost to Syria.

Nearly **6,000 children** have been verified to have been **KILLED OR MAIMED** in the Syrian conflict between 2014 and 2019.¹⁹ This includes at least **152 deaths** by summary **execution or torture**.²⁰ Prior to verified UN reporting, the UN Secretary-General raised the alarm that between 2011 and 2013 at least **10,000 children had already been killed** in the conflict.²¹

Girls and boys have lost their lives or been severely injured as a result of direct attacks and indirectly, consequent of the use of prohibited weapons such as cluster munitions, and attacks inherently indiscriminate or disproportionate in nature, in violation of international law.²² Air strikes have been identified by the UN as a primary cause for child casualties; actions by all parties have, over the 10-year period of the conflict demonstrated a consistent disregard for civilian life, particularly of children, their survival and future.²³

FIGURE 1. Child Killed in Syria, assessed against three protracted conflicts²⁴

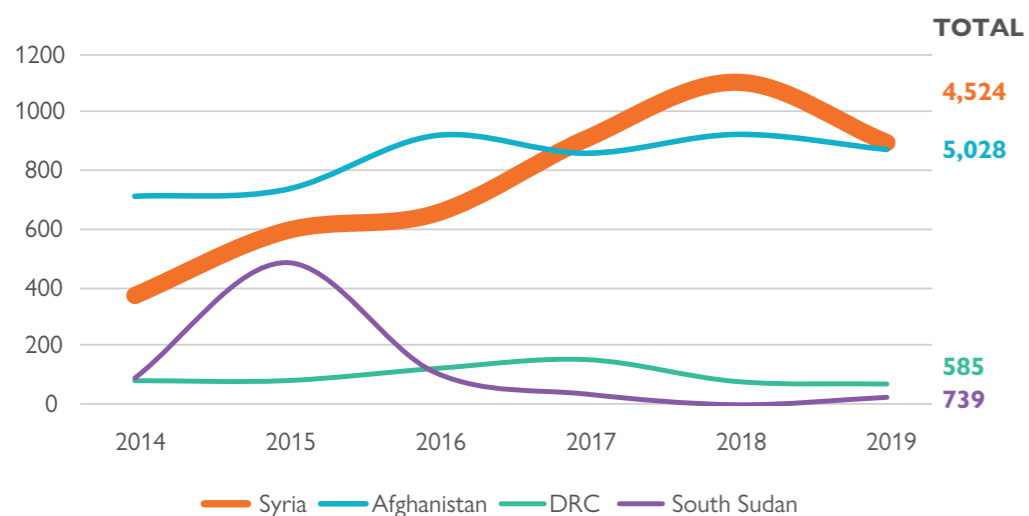
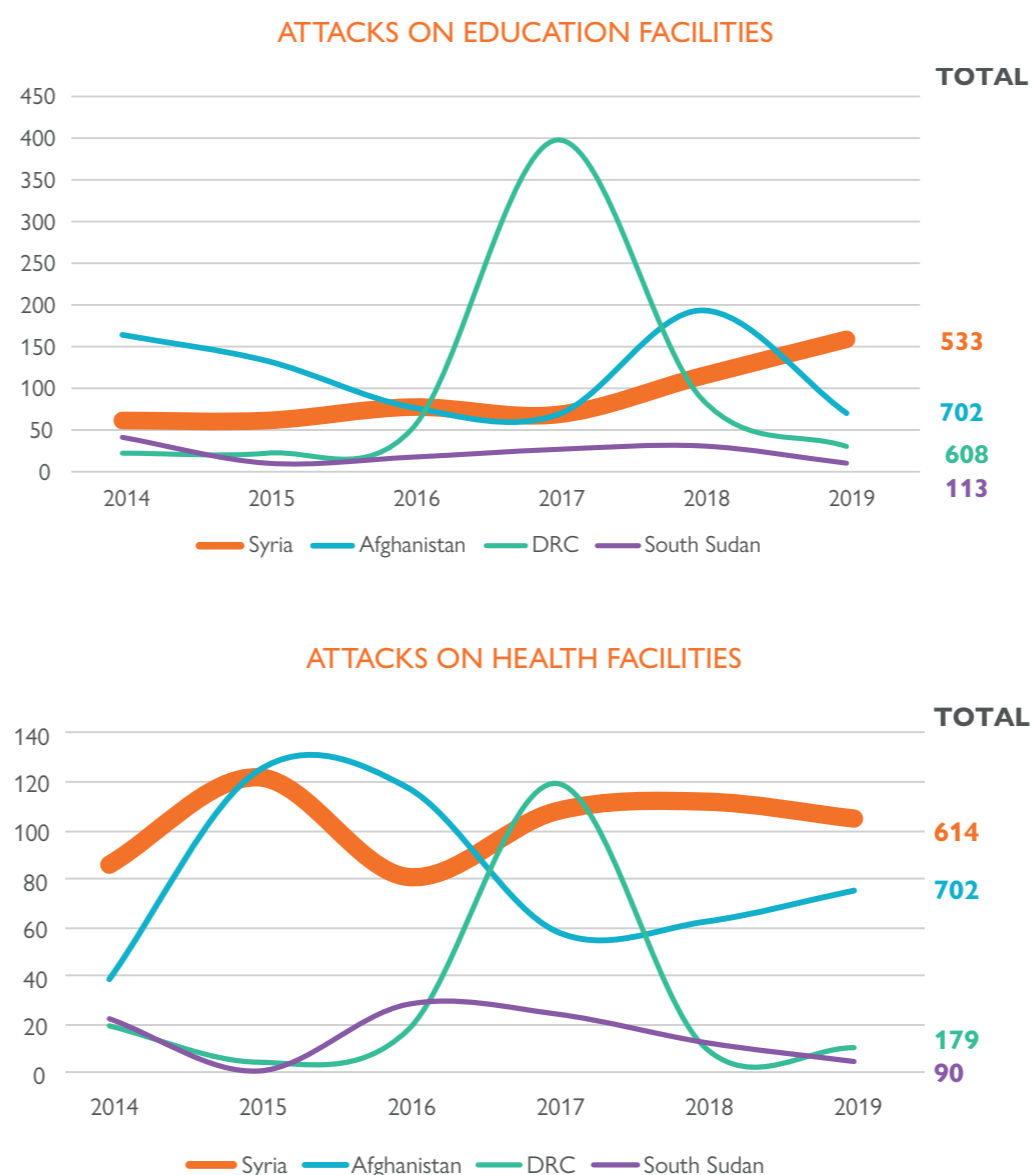


FIGURE 2. Attacks on Education & Health facilities in Syria, assessed against three protracted conflicts²⁵



Strategic and widespread **ATTACKS ON EDUCATION** have been a characteristic of the Syrian conflict, systematically targeting education infrastructure and personnel, despite schools being intended as safe spaces, essential to children's development. Instead, the UN has verified year-on-year increases in attacks on schools and teachers. Since verified reporting began in 2014, the UN has documented **700 attacks** on education, including 52 in 2020. UN reporting consistently identifies that majority of attacks on education and health to be caused by air strikes perpetrated by government or pro-government forces.²⁶ As a consequence, over **2.4 million children** are out of school inside Syria – nearly **40 per cent** are **girls**. After a decade of conflict, more than half of children inside Syria have been deprived of a basic education.²⁷

ATTACKS ON HEALTH infrastructure and personnel have been among the most severe and targeted in modern conflict, devastating the prospects for child survival and development. Physicians for Human Rights have mapped **595 attacks** against 350 separate medical facilities between March 2011 and March 2020, finding 90 percent were perpetrated by the Syrian government and allied forces.²⁸ **Every four days in 2019 a health facility was attacked** in Syria.²⁹ Few conflicts have been so characterised by the targeting of

health personnel directly, with **614 health workers killed** or injured between 2014 and 2019.³⁰ The **COVID-19** pandemic has added a new layer of complexity and demonstrates the fragility of the Syrian healthcare system, with **46 percent** of reported **cases resulting in death** in North West Syria partly due to the inability of the health system to cope.³¹



“No, I didn't go to school last year. I was worried about getting infected by COVID-19, and sometimes I was afraid of bombing.”
(Yasir, 18, North West Syria)

For 10 years, additional grave violations have been routinely perpetrated against Syrian children at an unprecedented scale, often increasing with each year of conflict, fundamentally denying girls and boys a protective environment and contributing to immeasurable loss.

- Children have been **RECRUITED AND USED** by all parties in the conflict since at least 2013, with the UN verifying over **4,000 children** associated with armed forces or groups. An estimated 82 per cent of children have been used in direct combat roles and 25 per cent of children have been under the age of 15 years. The brutal and unabating use of children directly and indirectly in the conflict will carry a heavy cost for Syria's future.
- Further denying their future, children continue to be **ABDUCTED AND DETAINED**, often linked to a real or perceived association with an armed group. The UN has documented at least 670 abducted children since reporting began. Over **1,700 children** have been detained or deprived of their liberty, often for years at a time. In at least 88 of these cases, children experienced torture while detained.³²
- **SEXUAL VIOLENCE** against children has been a disturbing and consistent feature of the conflict, with the UN reporting the perpetration of rape, sexual assault, forced marriage and sexual slavery. The stigma and sensitivity of reporting, absence of survivor-centred care and destruction of health facilities have contributed to gross underreporting. World Vision research conducted in 2020 found that 100 percent of girls and 94 percent of boys surveyed thought the practice of early and **forced marriage of girls had increased** since the start of the conflict; 71 per cent felt conflict and insecurity were the primary drivers of this practice.³³
- Children and their families have been systematically impacted by the widespread **DENIAL OF HUMANITARIAN ACCESS**, cutting off lifelines of the most basic assistance essential to survival. Syria is the most dangerous country to deliver life-saving

assistance and humanitarian services to, with 272 aid workers killed as of December 2020.³⁴ Access constraints range from indiscriminate and disproportionate attacks, use of siege and starvation tactics of war, presence of armed checkpoints, complex bureaucratic permissions and politicisation of principled humanitarian action to deny assistance to specific populations based on shifting areas of control. Taken together, the pervasive denial of humanitarian access has served to disconnect children from mental health and psychosocial support, education, food, shelter, healthcare, clean water, sanitation and protection.



“No. I don’t have hope. Air strikes destroyed my area under regime control. Here, we suffer; as young people we fear of rape and harassment.” (Leila, 18, IDP in North West Syria)

Syrian children have suffered some of the most serious violations in conflict and the greatest dangers of any generation. When assessed against other protracted conflicts, the comparative scale of child casualties and number of attacks on education and healthcare in Syria is devastating. UN monitoring has demonstrated year on year the increasing frequency of almost all of the grave violations perpetrated against Syria's children, despite the ebbs and flows of the conflict and periods of negotiated ceasefire.

The grave violations perpetrated against children amount to an immeasurable loss for an entire generation, but one that has very real and quantifiable impacts on Syria's human capital, economy and future. Deeper and less quantifiable costs, consequent of the loss of life, experience of trauma, the loss of education and lack of safe access to healthcare, will remain the burden of a generation of Syrian children as they navigate an eventual end to the war.

ECONOMIC ANALYSIS

One measure of the economic costs of conflict is its impact on lost value of production (measured by GDP). While an imperfect measure of overall well-being, the loss of productive capacity is a strong indicator of adverse impacts on children and young people. If a country's economy is shrinking, there is inevitably less money to be spent on the services children and young people need such as education and healthcare, as well as diminished food security, for example. The children and young people we talked to, either refugees in Jordan and Lebanon or displaced children in Syria, explained the same. There are fewer and fewer financial opportunities for them and their families which keeps them in dire living conditions with no access to school or healthcare.

The onset of war clearly had a rapid, sharp impact on the Syrian economy: GDP fell from US\$162 billion in 2010, to US\$91 billion in 2015, a 44 per cent drop (shown by the light-blue line in Figure 3). Our 2016 analysis³⁵ made projections about how GDP would evolve if the war were to end then, and the subsequent growth path under different scenarios about the speed of recovery.

“We live in a tent. It is so difficult and hard because of rain, mud and winter. All of us sisters and brothers sleep together in one tent, two to a mattress. We eat together. Our father always says that life at this time is so hard. My mother says she thanks GOD because water and bread are for free. If they were not, then it will be a big challenge.” (Jamal, 16, North West Syria)

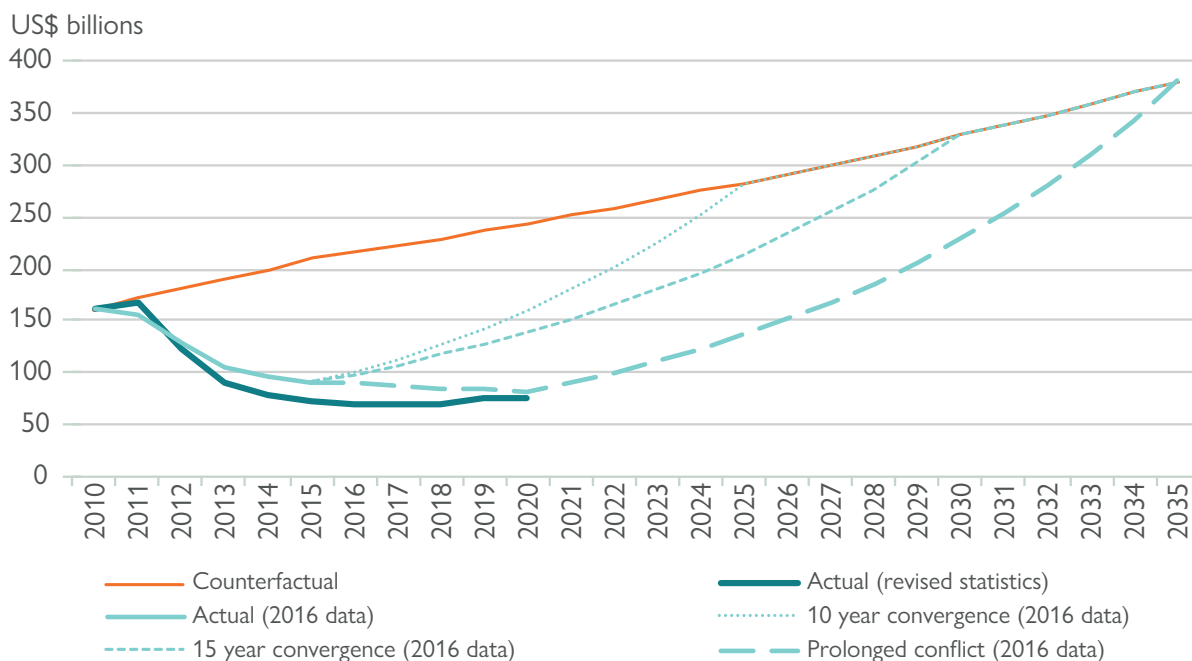
Based on observed speeds of recovery in other conflict cases, we assumed recovery to conflict-free levels of GDP could take between 10 and 15 years. These scenarios are shown by the light-blue hatched lines in Figure 3, labelled “10 and 15-year convergence 2016 data”.

We also projected a more pessimistic scenario. That the duration of war would double i.e. last a further five years (to 2020) followed by a 15-year recovery path. This is represented by the light blue dashed line in Figure 3 (“prolonged conflict 2016 data”). How the Syrian economy actually performed over the last 5 years is shown by the dark teal line in Figure 3. **We see that the Syrian economy in 2020 is almost exactly where we would have predicted it to be under our ‘prolonged conflict’ scenario, at US\$76 billion. In other words, the outcomes are as bad as the most pessimistic scenario we envisaged.**³⁶

The cumulative cost of war suffered by Syria can be calculated by finding the difference between the country's actual GDP and the rate at which we estimate the Syrian economy would have grown in the absence of war. A country with the characteristics of Syria prior to the conflict would have grown at an annual rate for about 3 or 4 per cent over the last 10 years (shown by the orange line in the Figure 4).³⁷ Using this comparison, **the cumulative losses from 2011 to 2020 are estimated at US\$1.2 trillion. For comparison, this total 10-year loss for Syria is almost equivalent to the European Union's budget over a decade (2009-2019).**

Figure 4 is also useful in highlighting that **the costs of conflict will continue to accumulate even if the war were to stop today.** The annual GDP remains well below the red line showing a ‘no-war’ economic scenario, even as growth would start to pick up if war ended this year (2021). This is because it takes time for an economy to recover. For each year that GDP is below the level it would have been without the conflict (the red line), the costs to Syria add up.

FIGURE 3. GDP trajectory incorporating 2016 projections and revised actuals up to 2020



Source: Frontier analysis of WDI, WEO and Penn World Tables data
 Note: US\$ 2020 PPP exchange rate

In 2016, World Vision’s analysis project that it would take 15 years for Syria to recover to the level of economic activity it would have had if there had been no war. This is essentially the same recovery path as shown in the earlier prolonged conflict scenario, and would require growth at 11 per cent for each of the 15 years. For recovery to non-conflict levels to be achieved within 10 years it would require growth at 16 per cent, which is even more ambitious, particularly given the impact of the COVID-19 pandemic on the global economy and on middle income countries. Compared with the 2016 analysis, recovery may take even longer than was predicted in 2016.

According to the World Bank³⁸, global poverty rates are set to rise significantly for the first time in over 20 years due to the economic impact of the global health crisis, pushing an extra 150 million people into poverty. This means that eight out of 10 of these people would be in middle income countries, like Syria was before the conflict.³⁹ This is likely to prolong the human costs of the Syrian conflict as recovery is likely to take longer than predicted before.

A longer recovery time is also expected to have a bigger impact on children as they will be without education, employment opportunities and access to services for much longer. To date, children are struggling to get the care and access they need. **Only 13 per cent of all Syrian children and young people we interviewed had unhindered quality access to education** across all three countries - Jordan, Lebanon and North West Syria - according to our findings. More than 30 percent of the Syrian refugee children we spoke to in Lebanon confirmed that their lives would have been better if they had access to even basic services.

Under these ambitious, but possible, paths taking 10 to 15 years, the future cost of the war, even if it were to stop today, would lie between another US\$924 billion and US\$1.4 trillion in today’s money. These costs are additional to the costs Syria has incurred to date.

THE ECONOMY OF CHILDREN'S POTENTIAL - HUMAN CAPITAL

The disproportionate impact of the war on children has longer-term implications for the ability of the country as a whole to recover from the war. Although it is possible to rebound from conflict relatively quickly (as economic activities that stalled during the conflict can resume, and physical capital can be redeployed), this becomes more difficult if there is long-lasting fall out for the education and health of a population.

This is because education and health represent the “human capital” of any country. The children of today are the workers of tomorrow and the prospects of a country reaching a higher standard of living rely on those workers. The burden of recovery after a protracted war is inevitably heaviest on those who were children, or were born, during it, as they are likely to be at the most economically active age when peace finally comes. By depriving children of education and by damaging their health, a war jeopardises the ability of a country to recover. While it is hard to quantify the cost of the horrendous violence against children inside Syria, we know that **violence against girls and boys has significant economic costs for individuals and societies, globally estimated to total US\$7 trillion annually.**⁴⁰ More importantly, the impact of violence on children’s psychosocial well-being is immense. Children become highly susceptible to

depression, anxiety, and other forms of mental illness in the short term when living in conflict zones.⁴¹ These challenges often act as barriers to physical health, education, and economic stability.

The children themselves are all too aware of this:

“I wish I was better educated and had a home here, by then I would be a useful member of society.”
(Amina aged 18, an IDP in North West Syria)

There is a sizeable body of research that finds that education and health are associated with higher economic growth,⁴² once we control for the effects of many other drivers. The findings typically focus on school enrolment rates and life expectancy, as indicators of education and health. Both are correlated, and are clearly impacted by factors such as malnutrition and disrupted services. We look at how the conflict’s damage to human capital affects economic growth by combining observed impacts on health and education with their estimated impacts on economic growth reported in the academic literature.⁴³



© Courtesy of Wold Vision staff. Qutaibah, 5, enrolled in World Vision's Early Childhood Education Centre studying.



CASE STUDY: WORLD VISION APPLIES A SYSTEM-STRENGTHENING APPROACH TO PROTECT SYRIAN CHILD REFUGEES IN JORDAN

Eight years into the Syrian war, and four years since Azraq camp was constructed, high rates of violence against girls and boys sounded the alarm to child protection agencies present in the camp, such as World Vision. At that time, Azraq camp was hosting more than 37,000 Syrian refugees, nearly 21 per cent of them under five years old and almost 62 per cent were children. Protection risks for children were alarming: increase in child labour cases, especially for boys; early marriage seemed to be the only option for girls to be safe and provided for; lack of safe public spaces; inadequate safety mechanisms for children and limited capacity of formal structures to respond to child protection concerns. This is where World Vision stepped in to provide community-based child protection and psychosocial support (PSS) services, parenting programming and intervention to empower children as actors of change. This was essential to strengthen prevention measures and mitigate child protection risks. Children, adolescents and parents themselves are taught to cope with stress and actively engage and advocate with key community stakeholders to address the root causes of violence against children. Together with the Syrian refugee community in the camp, we have supported capacity-building and partnership-building of formal and informal child protection actors. The Child Protection in Emergencies Program reached 1,549 children, and 773 adolescents with PSS, Life Skills and Peace Building activities. Almost 2,000 Syrian parents benefited from the Positive Parenting Programme while more than 180 of them also received psychosocial support. The Child Protection and Advocacy group consisted of 14 Syrian community members from Azraq Refugee Camp and six formal actors representing UNHCR, UNICEF and The Family Protection Department and other peer NGOs with which World Vision was working to identify child protection issues and ways to address them.

Based on actual evidence of impacts to date, **our central assumption is that the conflict reduced Syrian life expectancy by 13 years, and reduced enrolment by 21 per cent for primary schooling and by 28 per cent for secondary schooling.**⁴⁴

Translating these impacts into economic growth, we find that the conflict's adverse shocks via education and health on human capital would reduce annual economic growth by around 1.5 percentage points. In 2021, this would represent a reduction of around US\$75 per capita.⁴⁵ **That is around four times the minimum wage reported by the International Labour Organisation (ILO) for Syria.** Importantly these impacts will not be spread evenly across the population, but will be felt directly by those whose health, education and productivity is impeded.

Because the depletion of human capital affects growth, the effects persist through time. That is,

even if the war were to stop today, and absent any large-scale intervention to reverse the effects on health and education, economic costs would accumulate well into the future. Thus the combined effects of the war on education and health mean that if the economy were growing at 11 per cent a year to converge to the level it should have been at if there had never been a war, it might instead only be growing at 9.5 per cent. That in turn slows the pace of any recovery, even if the conflict were to cease.

This analysis, and the estimates for the future impact of lost human capital, demonstrates that not only are children distinctly and disproportionately affected by the conflict, but they will bear the greatest responsibility for reconstruction and growth when the conflict ceases. The stark economic consequences of the decade-long conflict outlined so far further exemplify the need for a multifaceted approach to durable solutions for displaced Syrians,

The effects of the war to date on education and health thus worsen the already high costs of conflict, even if the war were to cease immediately. The education and health impacts described above would add a further US\$120 to US\$260 billion, in today's money, to the possible 10- and 15-year convergence paths described in the previous section. This would take the cumulative future costs of conflict, even if the war were to end today, close to US\$1.7 trillion.

including, access to employment and education. The primary responsibility for durable solutions inside Syria rests with the Government of Syria in addition to other national and international actors governing or controlling territories. Current conditions in Syria are not viable for safe, dignified and voluntary returns of refugees and many IDPs owing to ongoing conflict and instability, human rights and socio-political conditions.

The international community must pay due attention to this.

RETURNING REFUGEES

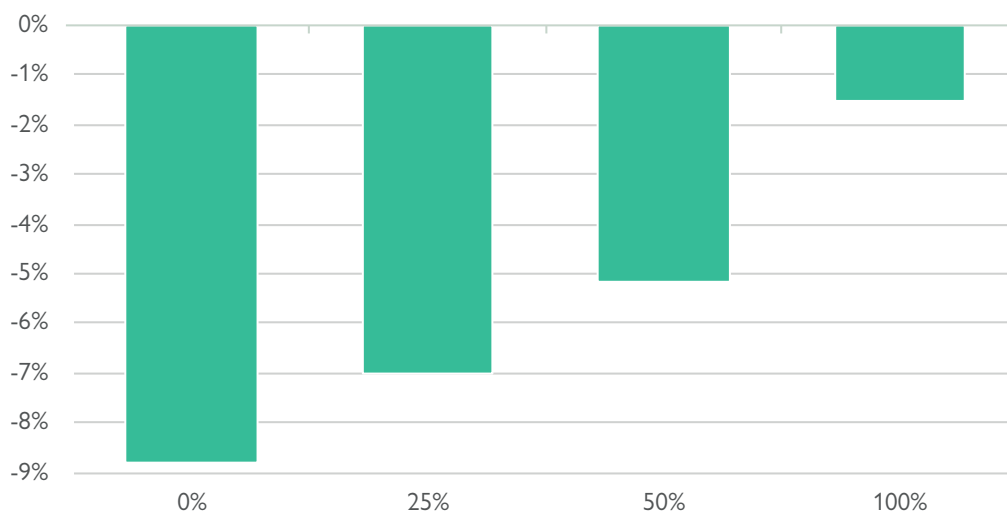
Safe, voluntary and dignified return is one possible solution to the refugee crisis. It is however fully dependent on the security conditions inside the country.⁴⁶ A comprehensive political solution is necessary to overcome the enormous challenges that hinder a safe and conducive environment for repatriation to Syria⁴⁷; such a solution however remains absent. A minority of Syrian refugees have returned to Syria, with many under questionable conditions with regard to voluntariness and significant push factors in some locations with estimates suggesting that the overwhelming majority of returnees to Syria thus far did not do so voluntarily⁴⁸; while third country resettlement is accessible to very few, with global refugee resettlement at record lows⁴⁹.

The analysis of conditions conducive for returns beyond evident social and political considerations and concerns, and the analysis current economic viability to support sustainable voluntary returns, recovery and self-reliance of communities by no means diminishes the importance of said overarching social and political conditions. Rather the opposite. The analysis presented below offers an important insight into conditions and a reality that will likely result in significant economic and social marginalization, internal displacement, and further human rights violations, even where and if conditions were viable for safe, voluntary and dignified returns.

It would be hoped that any return of Syrian refugees would coincide with an increased level of social and economic stability. But, even when returns become a tool of last resort, or desirable and possible for some individuals, such conditions cannot be taken for granted. Although the conditions cannot be presumed to be appropriate for return immediately or soon after a cessation in conflict and any political solution, for the purpose of economic analysis it is necessary to consider the impact of returns on individual households and the overall economic recovery picture described above. Although sensitive, it is useful to consider that the fact of people feeling sufficiently safe and secure that they choose to return does not necessarily mean that the conditions in the country will allow them to be self-reliant and economically active. What is more, their own experiences may limit their ability to be economically productive participants in the country for some time. This is much worse for those with disabilities.

For example, only 36 per cent of Syrian returnees have worked in the past three months and 10 per cent fewer have regular income.⁵⁰ As such, it is far from clear that refugee returns where safe to do so, would result in self-reliance and recovery and could provide a sufficient economic boost activity to sustain even current living standards, as measured by per capita income, absent significant additional investment.

If there were to be significant additions to the population without a corresponding increase in economic output, then by definition there would be further strain on per capita income (there

FIGURE 4. Output per returnee worker as per cent of resident population

Source: Frontier analysis of HNAP and WDI data

would be more people, but the same size of pie to share). Furthermore, the returnee population thus far is overrepresented by both young and elderly dependents with 89 dependents per 100 population of working age⁵¹ recorded according to the HNAP report:⁵² with the former facing significant challenges accessing education and training in the last decade; compared with 56 dependents per 100 in the remaining population.⁵³ If future returnees to Syria resemble the same demographic and the same personal development challenges of the last decade, which is very likely; recovery and self-reliance prospects will be significantly hindered while they will likely not be in a position to contribute significantly to economic recovery.

To illustrate this, we explore the change in income per capita resulting from a voluntary, safe and dignified returnee scenario under different assumptions around production by the returnee population. It is unlikely that the returnees will generate the same level of GDP per worker, especially considering that returnees are unlikely to bring much capital, either in the form of financial assets or in human capital (education, skills etc.) terms.

If we assume, for the purposes of this analysis, that 25 per cent of the total current refugee population were to return to Syria, i.e there is an inflow of an additional one million people, relative

to a resident population of 17 million, about 470,000 of whom are dependents then:

- In the event that returning refugees were unable to contribute productively at all to economic activity, GDP per capita could fall by up to 9 per cent.
- If the economically returning refugees ability to contribute is partial (e.g. between 25 per cent and 50 per cent of the contribution of residents), then GDP per capita could fall by between 5 per cent and 7 per cent.
- Self-reliance and recovery capacities will likely be significantly hindered due both conditions inside Syria and experiences of the last decade, including limitation and restrictions faced by Syrian children and youth, unless inclusive and meaningful political and economic solutions are realised.

“The unknown. Not knowing what will happen to you. Not knowing what will happen in two days, going back to Syria or leaving the camp. You don’t know.” (Amira, 19, Jordan)



LISTENING TO CHILDREN

George Mghames ©World Vision. Sandy Attouch, a teacher at the Early Childhood Development Center, with one of her students.

As noted in the economic analysis, children will bear the greatest responsibility for reconstruction and growth when the conflict ceases. This is why it is absolutely critical to listen to their opinions about solutions that work for them. More importantly, these conversations must lead to action for durable solutions to guide interventions and advocacy of decision-makers across the peace-building, humanitarian, human rights and development spheres in Syria. This must include development of a robust human rights due diligence policy for any future reconstruction interventions in close cooperation with Syrian civil society actors and children.⁵⁴

In January 2021 we spoke to 379 boys and girls inside Syria, Lebanon and Jordan⁵⁵. All surveyed participants are Syrian children and young people aged from 16 to 20. Out of those surveyed 122 are internally displaced inside North West Syria, 144 are refugees in Jordan, and 93 are refugees in

Lebanon. Overall, 53 percent of the respondents were girls or young women, and 47 percent were boys or young men.

Both refugees and internally displaced children and young people expressed concerns about their day-to-day lives and those of their parents. The reality they described to us is an unquantifiable loss of learning, safety and psychosocial well-being. Sadly, many Syrian children and young people told us they just did not feel equipped to contribute to the recovery of the country, even if the war would stop today. Many Syrian adolescents and young people told us that the 10-year mark of the conflict makes them feel that it is now impossible for them to achieve their hopes and dreams and support their communities. **They felt that without support for education and opportunities to develop their potential – their human capital – their ability to support their country's recovery, is limited.**

EDUCATION

More than 75 per cent of all children we spoke to were not currently attending school or any other educational institution. Lack of money was cited as the main reason keeping children and young people out of schools and learning, closely followed by school closures due to the COVID-19 pandemic. Many children reported not having access to digital equipment to continue learning. About a third of the adolescents and young people we spoke to, have insufficient funds to cover transportation, pay for their uniforms or school fees. Because of COVID-19, close to 30 per cent of children had to drop school completely, close to 20 per cent had to start working, while others had to look after the household or siblings.

Children and young people reported marked differences in their ability to access education based on their location. Refugee children and young people in Jordan reported the highest level of attendance at 41 per cent, followed by displaced children in North West Syria at 32 per cent, with refugee children in Lebanon coming last, with a shockingly low level of attendance at just 16 per cent – half of that reported by children in Syria. This is despite the volatile situation inside Syria, where attacks on schools have been pervasive since the start of the conflict in 2011. Boys tended to be more impacted by challenges in attending school than girls, according to our findings.⁵⁶



Marc AJ ©World Vision. Sajida and her brother Sajid, are looking forward to decorate their rooms with crafts. Sajida adds "I love the sessions, especially math and Arabic".



George Mghames ©World Vision. Aysha is proud of her drawing and shows it to Baraa.

More than half of the children and young people displaced inside Syria reported that they were **most afraid of violence in the community and armed clashes** when it came to school

attendance, in line with findings of the prevalence of attacks on schools in Syria. Those children who moved more than two times reported facing challenges that affect their education more often.

When asked about future prospects of the next generation, almost all the refugees and IDP children and youth surveyed foresee younger children experiencing the same challenges and barriers to education as they have faced. Nothing has changed, according to them. This was a particularly strong sentiment expressed by refugee children in Lebanon who are affected by the compounding effects of the crisis, the economic downfall inside the country and discriminatory laws.⁵⁷

CHILD PROTECTION

Throughout nearly a decade of displacement girls and boys have witnessed an unprecedented level of violence – emotional, verbal or physical. Forced displacement was highlighted repeatedly by all children we spoke to as the main driver of child protection issues they had to face. **More than 70 per cent of the surveyed children confirmed having to flee due to spikes in violence and attacks which has left their homes destroyed, for at least more than half of them.** More than a quarter of the children and young people were displaced more than once.



Elias Abu Ata ©World Vision. More than 100 children enjoy attending fun activities that provide relief at one of World Vision's Adolescent-Friendly Spaces in Zarqa, Jordan

According to our findings, displaced children inside Syria do not feel safe at all when they relocate from one place to another while protection risks significantly multiply for them. They are either exposed to child labour, are living in unsafe and poor living conditions, have limited or no access to services like medical care, education or other type of psychosocial support or fear for their lives due to the high risk of attacks and shelling.

In dealing with difficulties in school and life, and pondering their worries, many of these children and young people seek support from their families. But they also look for 'friendly spaces' and support from civil society. About 42 percent of children said they sought support from family members. However, this dropped sharply for adolescent girls. Only 29 per cent reported seeking family support about their worries. They looked for support from INGOs and NGOs and wanted more friendly spaces for women, girls and boys.

Meanwhile, the incidence of child marriage has increased significantly since the beginning of

the conflict. **More than 43 per cent of children World Vision spoke to know a boy or a girl married under the age of 18.** Children and young people living in Syria and Lebanon reported being aware of child marriages more frequently, compared to those living in Jordan. Conflict, poverty, poor living conditions and displacement were mentioned most often as the underlying reasons.



Maria Bou Chaaya ©World Vision. Sara lives with her mother, father, and six little siblings in Akkar.

RETURNS

Recent studies seeking to hear from Syrian refugees and IDPs by consortia, World Vision and other civil society partners outline important findings in relation to the opinions of affected populations, including children. While internally displaced people (IDPs) inside Syria and refugees are not homogenous groups, and have different experiences of forced displacement, **there is a resounding recognition that the only option both IDPs and refugees widely considered available to them in the next five to 10 years was to stay where they are.**⁵⁸

The adolescents and young people with whom we spoke for this report, reconfirmed this fact with important distinctions based on location and status. They spoke to us in detail about the lifelong impact 10 years of war has had on them. Internally displaced adolescents and young people in North West Syria told us they wanted to go home in the next two years, but sadly their refugee counterparts in neighbouring Lebanon and Jordan were much more pessimistic and felt this was an impossible dream.⁵⁹

Lack of access to health and education were key determinants cited by refugees who are unwilling to return to Syria from Jordan and Lebanon. Half of the refugee young people surveyed are entertaining the possibility of return to Syria in the medium- to long-term. They want to acquire the skills to make that possible for themselves and they want to be useful to their communities. Financial limitations, above all, get in the way of them making the personal educational advances that would ultimately equip them to maximally contribute to Syria's re-growth. While more than half of the children and young

“I wanted education and to live in a house not a caravan. It is difficult for us to continue our education because of the current conditions”, said **17-year-old Sama** who is still living in the Azraq camp after five years.

people spoke about returning home as their biggest worry (54 per cent), this was closely followed by accessing education (39 per cent) and finding employment (29 per cent). Many dream of finding a way out of the cycle of discrimination and emotional or physical violence.



George Mghames ©World Vision.
Yasmine standing outside of her tent in the informal tented settlement in Bekaa, Lebanon.

RECOMMENDATIONS



Maria Bou Chaaya ©World Vision. Sara, 11, lives with her mother, father, and six little siblings in Akkar. They arrived in Lebanon seven years ago, after escaping the war in Syria.

As Syria enters a 10th year of conflict, we continue to call for the only viable solution - a lasting peace, accompanied by an inclusive, representative political solution to the crisis. The need for concerted action is now. Without consistent investment of political will, technical and financial resources, and the desire and commitment on all sides to progress towards sustainable peace and security, Syrian children will continue to pay the price for adult failures. While humanitarian action can continue saving lives and working to protect civilians, resources and capacities are limited in the face of ever-growing

needs. Ultimately, it is those holding political power that have the future of Syria's children in their hands.

Children and young people we spoke to were clear on what they want – an end to war in Syria. Syrian youth want to protect the future of the generation coming after them, which they fear is also on the brink of being lost. They do not want promises, but a concrete and realisable commitment that can help them to restore their country, their lives and their hopes.

LISTEN TO THE CHILDREN OF SYRIA

Children we spoke to for this report highlighted, above all else, the need for peace.

- **Children called for safe places to live**, reflecting on the difficult living conditions in tented settlements or precarious overcrowded urban housing
- **Children urged international decision-makers to support quality livelihoods** for their parents, care givers and wider community. Almost a third of those interviewed mentioned that their families need a regular income and access to the job market
- **Children called for access to education and psychosocial support** so they can rebuild their lives.

FUND SUSTAINABLE SOLUTIONS FOR CHILDREN

Donors must

- **Step up their efforts and renew their financial commitments** on a multi-annual and flexible basis, and fund continued lifesaving, protection and resilience support to achieve durable solutions for children in Syria and the region. To this end they should:
 - Fully fund child protection needs in the United Nations Syria Arab Republic Humanitarian Response Plan (HRP), but also increasing longer-term investments aimed at ending gender based violence, forced child marriage, child labour and other forms of violence against children, especially women and girls. Currently the Syria HRP is only 0.5% funded⁶⁰
 - Scale up sustainable durable solutions for refugee children by fully funding children's needs in the Regional Refugee and Resilience Plan, but also by investing in longer-term solutions to provide refugee children with access to sustainable primary and secondary education, as well as adequate healthcare services in the face of compounding effects of the COVID-19 pandemic
- **Invest in cash and voucher programming (CVP) as a core tool** that has proven to increase the dignity of aid and empower parents to make the most appropriate use of resources to support their children. This type of assistance may also help to keep the parent in the role of provider in the eyes of their children, strengthening family relationships and cohesion
- **Fully support Lebanon and Jordan Compacts and expand stock of capital** through investment, including in infrastructure, to enhance the skills of local refugee workers and to strengthen the ability of refugees to access the formal economy, recognising these plans as a landmark in supporting the current and future economic viability of affected communities
- **Review and address the negative impact of sanctions on civilians in Syria** in accordance with the recommendations of the Special Rapporteur on the Negative Impact of the Unilateral Coercive Measures⁶¹ who has identified serious human rights concerns in the application of the Cesar Act including people's rights to housing, health, and an adequate standard of living and development



George Mghames ©World Vision. Syrian refugee child Alwan drawing during his class in the Early Childhood Development Center.

- **Support a dialogue track based on community consultation inclusive of the displaced children, women and youth**, designed to support the development of a joined-up, funded 'programme of action' on durable solutions to guide interventions and advocacy of decision-makers across the peace-building, humanitarian, human rights and development spheres in Syria. This must include development of a robust human rights due diligence policy for any future reconstruction interventions in close cooperation with Syrian civil society actors and children. Over time seek to influence participatory localised reconstruction planning processes inclusive of women, young people, returnees and the displaced.⁶²

PROTECT THE CHILDREN OF SYRIA

- **All parties to the conflict must immediately cease grave violations against children's rights**, and be held accountable by the international community for violations they committed. Syria's children have suffered enough. Without accountability, any chance of reconciliation and peace will remain elusive. To this end, the international community must continue to support the United Nations-led Monitoring and Reporting Mechanism for Syria as to systematically monitor and report grave violations of children's rights, including the tracking of age- and sex-disaggregated data on casualties and other violations
- **Humanitarian actors must expand mental health and psychosocial support programs (MHPSS)** for children and include these as an important element across education, child protection and health sectors, as well as integrate MHPSS as a core component of durable solutions frameworks. The level of violence witnessed and suffered by the children of Syria is immense. While children's resilience can be remarkable, without adequate support they may face significant effects on their future health and well-being
- **All governments that are hosting refugees and asylum seekers must uphold non-refoulement,**

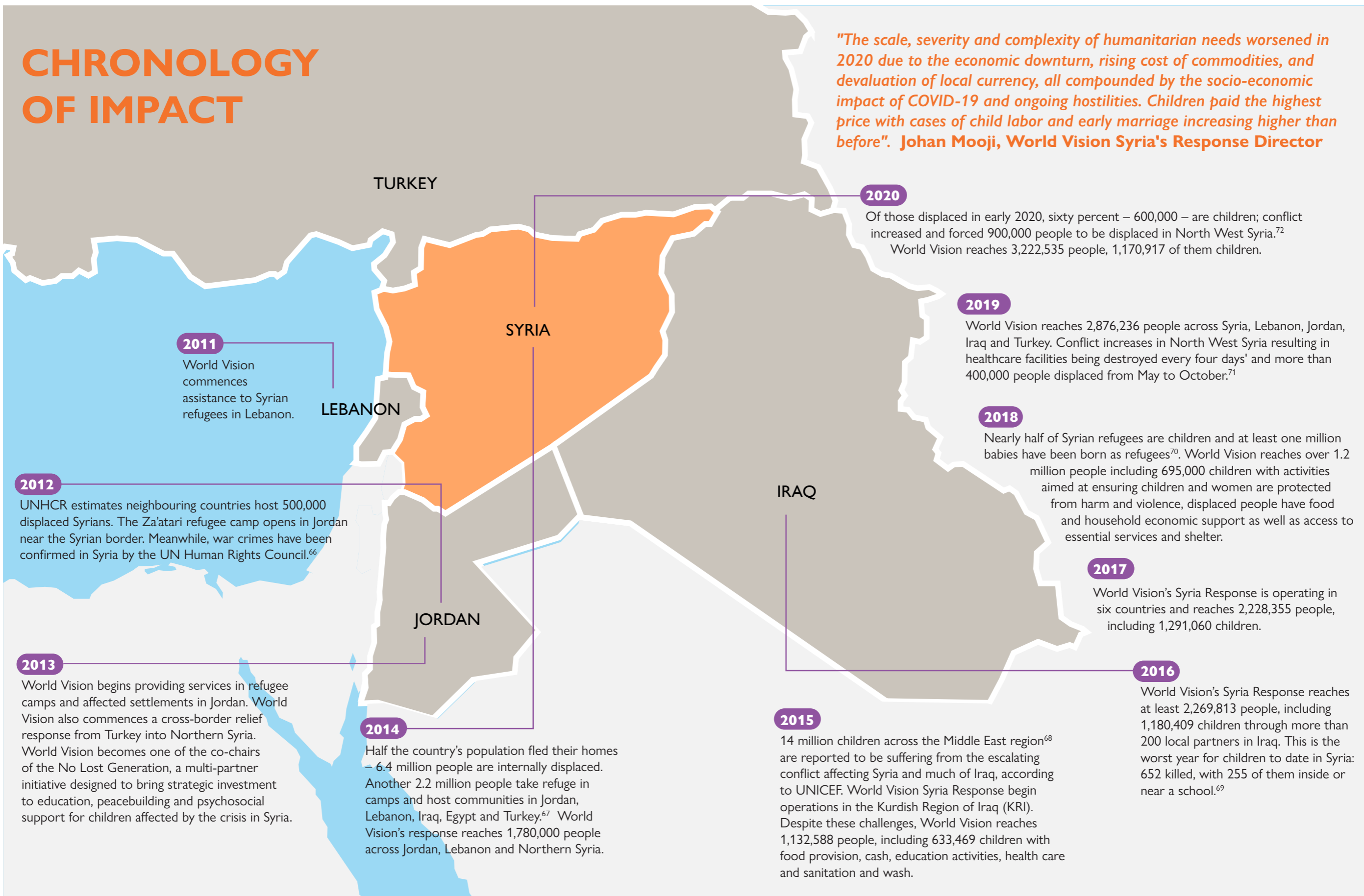
end deportations to Syria and explicitly limit any coercive measures which incentivise return - such as setting targets and quotas for return, restricting legal residency in the location of displacement, or shrinking the protection space, or limiting access to services. Temporary protection schemes should be renewed or refugee status should be granted⁶³

- **With support from the international community, refugee-hosting governments should go further** for children by ensuring the provision of alternative and expedited learning, vocational training, tertiary education and livelihoods opportunities for adolescents and youth affected by conflict and displacement to support self-reliance and eventual durable solutions
- **The international community must step up their commitments on resettlement** of Syrian refugees, especially children, in line with the Global Compact on Refugees. According to our analysis of available UNHCR data less than 2 per cent⁶⁴ of Syrian refugees had their cases submitted last year, while more than 570,000⁶⁵ Syrian refugees are in dire need of resettlement.



George Mghames ©World Vision. Art class is one of the favourite classes for the children; it's a chance for them to go creative with their imagination.

CHRONOLOGY OF IMPACT



ANNEX 1 - RETURNS

FIGURE 5. Refugees on return

WHAT CONCERNS DO YOU HAVE THAT IMPEDES YOU FROM RETURNING TO SYRIA? (N=207)

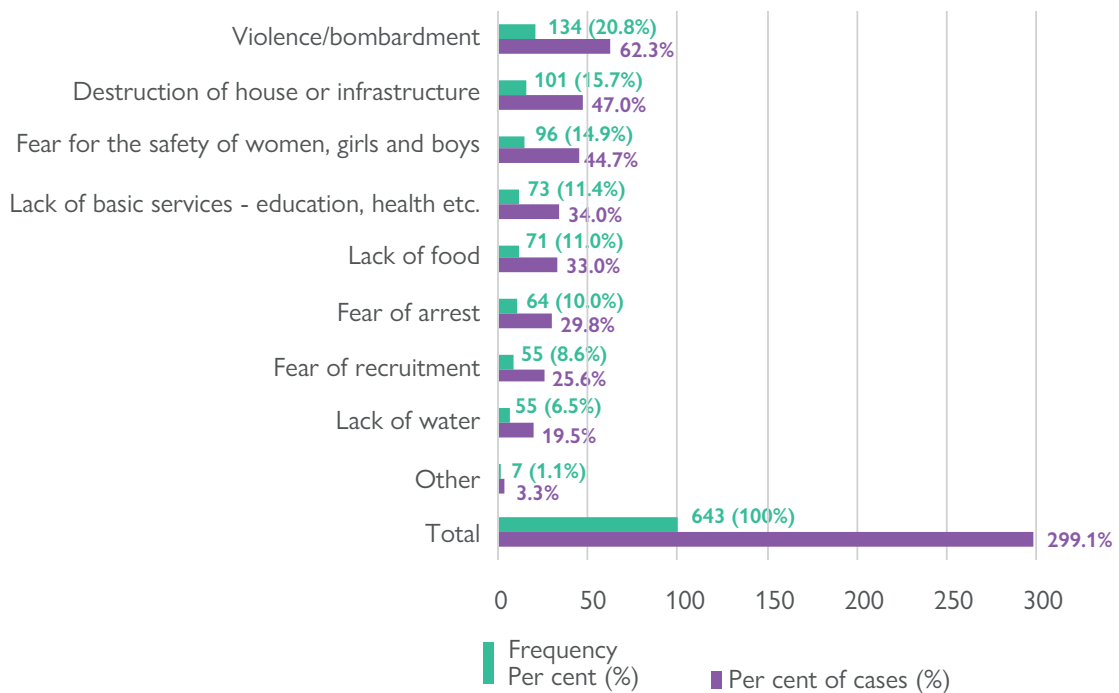
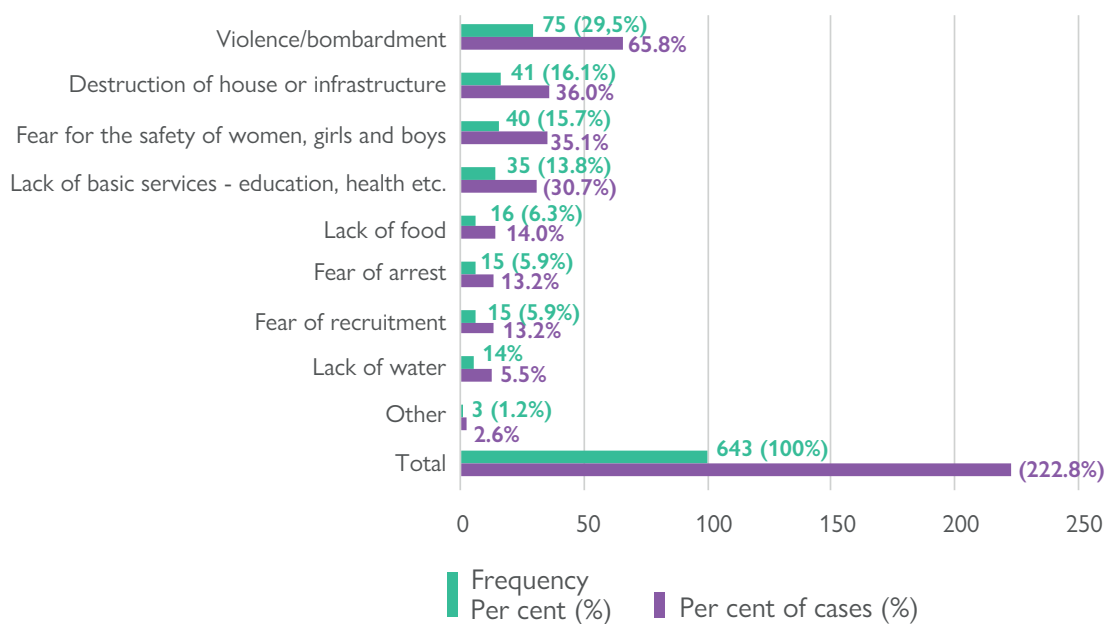


FIGURE 6. IDPs on return

WHAT CONCERNS DO YOU HAVE THAT IMPEDES YOU FROM RETURNING TO TOWN/HOME OF ORIGIN? (N=114)



TECHNICAL ANNEX SYRIA

This technical annex provides a brief overview of our modelling process and the economic literature used to inform the impacts of education and health measures in our modelling.

MODELLING APPROACH

Summary of Approach

Our general approach is the same as that of the 2016 report, but using an updated actual GDP series for Syria which extends to 2020. At a high level, we compare the actual growth path of Syria to an estimated 'counterfactual' scenario which is absent of the conflict. The difference between the two is attributed to the effect of conflict.

We also expand upon our previous analysis by estimating the effects of the conflict on health and education, and the resulting impact on growth. A deterioration of health and education measures is assumed to lead to lower projections of GDP as a result of lower growth rates. This increases the cost of the conflict since Syria's GDP will take longer to converge to the counterfactual scenario.

Econometric Model

The econometric analysis informs the counterfactual scenario in our modelling and is unchanged compared to the 2016 report in terms of methodology and the data sample used. We therefore only estimate the counterfactual growth rates up to 2016, based on our estimation at time of the 2016 report. Beyond 2016 we apply a conflict-free growth rate of 3 per cent a year⁷³ which is a conservative assumption formed by rounding down our model's average predicted growth between 2011 and 2016.

The counterfactual growth rates for 2011-2016 were calculated using a pooled panel data from over 120 countries. This explains the growth rate

as a function of country characteristics, as well as a series of time dummies that control for global macroeconomic conditions prevailing each year. This allows for countries to grow at different rates, depending on their characteristics, and for there to be common shocks each year. This is consistent with the literature on convergence, which holds that less-developed countries have more growth potential and will grow faster than already developed countries.

The choice of country characteristics to control for was informed by academic literature on economic growth. We first identified potentially relevant variables in the World Bank World Development Indicators and then explored the coverage of each variable across countries and over time, to work out the potential scope of the dataset, as there are trade-offs between the time period, range of countries and range of variables that can be included without incurring gaps⁷⁴. Further gaps in the data were addressed using IMF World Economic Outlook and Total Economy Database.

A 'general-to-specific' approach was then used to identify which of these variables should be included in the estimation. This starts with the full range of variables in the model, and one by one drop those that are statistically insignificant, so that only the relevant variables are retained.

This produces the following model for country i in year t :⁷⁵

$$\begin{aligned} \text{Growth GDP Per Capita}_{-it} &= \text{Constant} + (\text{dummy}) \text{ Year}_{-t} + \text{Gross Capital} \\ &\text{Formation}_{-it} \\ &+ \text{Industry Share}_{-it} + \text{Services Share}_{-it} + \text{Literacy} \\ &\text{Rate}_{-it} \\ &+ \text{Log}(\text{GDP Per Capita})_{-it} + \text{Savings Rate}_{-it} \\ &+ (\text{dummy}) \text{ Low Income Country}_{-i} \\ &+ (\text{dummy}) \text{ Lower Middle Income Country}_{-i} \\ &+ \text{Trade Share of GDP}_{-it} + \mu_{-it} \end{aligned}$$

TABLE 1. Basic model results – impact of variables on GDP per capita

Variable	Coefficient	T-statistic
1996 dummy	-0.0078	-1.35
1997 dummy	0.0018	0.41
1998 dummy	0.0051	1.05
1999 dummy	-0.0042	-0.87
2000 dummy	-0.0026	-0.64
2001 dummy	0.007	1.79
2002 dummy	-0.002	-0.57
2003 dummy	-0.0022	-0.55
2004 dummy	0.0092	2.24
2005 dummy	0.0231	5.67
2006 dummy	0.0175	4.53
2007 dummy	0.0228	5.48
2008 dummy	0.0192	4.64
2009 dummy	-0.0039	-0.96
2010 dummy	-0.0406	-8.51
2011 dummy	0.0045	1.3
2012 dummy	0.0021	0.56
2013 dummy	-0.004	-1.21
2014 dummy	-0.0036	-1.08
2015 dummy	-0.0016	-0.57
Gross capital formation	0.1587	9.54
Industry share	-0.0868	-5.4
Services share	-0.1061	-7.34
Literacy rate	0.032	4.68
Log GDP per capita	-0.005	-2.89
Savings rate	0.022	1.97
Low-income country dummy	-0.0213	-3.77
Lower-middle income country dummy	-0.0072	-2.04
Trade share of GDP	0.0023	1.67
Constant	0.0916	5.3

Number of observations – 2418, R-squared 0.24

In the 2016 report, we were seeking to forecast GDP growth for Syria, Lebanon, Jordan and Turkey, and did not want the actual outcomes for these countries to affect the estimates, these countries were excluded from the estimation sample, along with Iran, Iraq and Israel.

Source: Frontier analysis of World Bank, UNHCR and Total Economy Database data

Multiplying these coefficients up by the country characteristics gives the estimate of GDP per capita growth for that year. For example, a country with gross capital formation of 23 per cent, 30 per cent industry, 60 per cent services, 80 per cent literacy, US\$ 5000 GDP per capita, 20 per cent savings rate, 50 per cent trade as share of GDP, classified as lower middle-income would have an estimated growth rate of 4.1

per cent in 2000, but only 0.3 per cent in 2010. The 2011-2015 forecasts for Syria are derived in exactly the same fashion. Note that the 2011-2015 predictions for Syria use 2010 characteristics instead of 2011-2015 actuals, as the latter may themselves be affected by the onset of conflict (e.g. conflict lowers savings rate, which would in turn lower the counterfactual).

The counterfactual growth rates contain an average global macroeconomic component and a country characteristics component⁷⁶. In general, they are fairly flat, with mild dips in 1999 and 2001, a sharp contraction in 2009 and lower growth from 2010 onwards.

Data Sources

GDP for the Econometric model

The main GDP data comes from the World Bank World Development Indicators dataset. The variable of interest is “NY_GDP_PCAP_PP_KD”, which is GDP per capita, PPP (constant 2011 international \$). Where there are gaps, this is supplemented with other data on constant GDP per capita. This data typically extends up to 2014.

More recent GDP data is to be found in the Total Economy Database, which includes GDP estimates for 2015. We incorporate 2015 data by using the “GDP-Capita EKS” variable from TED which measures GDP per capita in 2014 US\$ (converted to 2014 price level with updated 2011 PPPs). The growth rates in from this series are applied to the NY_GDP_PCAP_PP_KD series to create an extended series of real GDP per capita that is measured on a consistent basis over time. For Syria, the NY_GDP_PCAP_PP_KD series is not reported at all in WDI. Instead, we use “NY_GDP_PCAP_KD” - GDP per capita (constant 2005 US\$), which is available up to 2007. Note that growth rates in NY_GDP_PCAP_PP_KD and in NY_GDP_PCAP_KD are the same, with all that differs being the \$/PPP base. We then extend the series up to 2015 using the using growth rates from the TED data and re-base into 2011 PPP-adjusted dollars for comparability with other countries. So, essentially the GDP data for Syria in the conflict period is the TED data. The TED and WDI series are very similar to each other over time, there should not be any particular issues involved with using the TED data.

Syrian GDP (post-conflict)

The econometric model uses World Development Indicators (WDI) data on sector mix, literacy, savings, capital formation, GDP and openness to trade. However, the WDI does

not contain any post-conflict data for Syria. To generate an actual GDP series for the post-conflict period, we take the following steps:

- Use 2010 Syria nominal GDP (NGDP)
- Convert to US\$ in purchasing power parity (PPP) terms using PPPEX conversion rate
- Apply real growth rates as reported in Penn World Tables⁷⁷ V10.0 (RGDPNA series)
- We then divide US current GDP by constant GDP (NGDP/NGDP_R), which is used to rebase the series in 2020 \$US.)
- Data for 2020 are derived by calculating year-on-year growth rates for the past three years and using the average of these to extend 2019 data to 2020

Population data

Population data is taken from the “SP.POPTOTL” measure in WDI. This measure which counts all residents regardless of legal status or citizenship, but excludes refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. This series goes up to 2014; 2015 data are created by applying 2014 growth rates to 2014 totals.

We then use UNHCR Refugee Population Statistics to construct a refugee-inclusive measure of population. This data lists refugee populations for each country of origin and country of residence. Refugees originating from a country are subtracted from the origin country's population and added to the population of the country they are residing in. Refugee-inclusive GDP per capita numbers and associated growth rates are calculated by dividing through the GDP series derived above by these population figures. Counterfactual population figures are derived by assuming no further changes in refugee population from 2010 onwards.

Changes to school enrolment

The changes in enrolment figures are calculated by combining the latest reported WDI data with the UNICEF report⁷⁸ on Syria's education sector. The latest reported WDI data (from 2005) has

primary enrolment of 99 per cent (SE_PRM_TENR variable) and secondary enrolment at 70 per cent (SE_SEC_ENRR).

The UNICEF report says primary enrolment (as of 2015) is 78 per cent, implying a 21 percentage point reduction compared to the WSI's 2005 figure.⁷⁹

Secondary enrolment was not directly stated in the report, but can be implied from other statistics. We assume throughout our calculation that primary and secondary schooling are approximately equal in size. The UNICEF report says that the “2014/15 kindergarten to Grade 12 GER (gross enrolment ratio) was 60 per cent”⁸⁰. The WDI data implies an overall enrolment ratio of 84.5 per cent in 2005 (the average of 99 per cent and 70 per cent) meaning a 24.5 percentage point reduction in total enrolment must have occurred to match the 60 per cent figure reported by UNICEF. If primary schooling enrolment falls by 21 percentage points, this will account for 10.5 percentage points of the total fall. By a similar logic, secondary enrolment must fall by 28 percentage points to account for the remaining 14 percentage point fall in total enrolment. Therefore our central assumption is a 21 percentage point fall in primary schooling and a 28 percentage point fall in secondary schooling.

It is worth caveating that these estimates have a high degree of uncertainty, given the difficulties in assessing school closures. For example, the UNICEF paper itself is on the basis of researching specific districts and estimating what fraction of all schools are closed.

Cost Estimation

The cost of the conflict is measured by the difference between the actual path of GDP and our estimated counterfactual GDP path. Therefore, to assess *future* costs of the conflict, we must form a projection of the actual and counterfactual scenarios.

When constructing our counterfactual scenario, we apply our estimated growth rates for 2011-2016 to Syria's pre-conflict GDP. Beyond 2016 we apply a conflict-free growth rate of 3 per cent a

year⁸¹ which is a conservative assumption formed by rounding down our model's average predicted growth between 2011 and 2016.

When projecting actual GDP, we consider a number of alternative scenarios or ‘convergence paths’. These apply different growth rates to Syria's actual GDP in 2020 such that forecasted actual GDP converges to (equals) counterfactual GDP levels within 10 and 15 years respectively. It is worth noting that the counterfactual scenario is also growing over this period, meaning convergence paths correspond to a relatively higher growth rate than the counterfactual scenario.

We have formed new convergence paths based on the likely long-term impacts of the conflict on education and health, and the resulting impact on growth rates. Applying our estimated education and health effects reduces growth rates in each of the convergence paths, leading to a higher total cost. The next section discussed the estimation and implementation of education and health effects in more detail.

THE IMPACT OF EDUCATION AND HEALTH ON GROWTH

Lost education opportunities and adverse health outcomes affect children disproportionately and create long-term damage for the entire economy. To estimate the growth effect of health and education deterioration as a result of the conflict, we combine estimated effects in the economic literature with data on the total change in health and education variables.

The economic literature suggests that many variables could influence growth rates. Many combinations of variables and measures of these variables have been tested in the literature, with each paper having a slightly different model specification. In their paper, Doppelhofer, Miller and Sala-i-Martin⁸² explore numerous combinations of variables to understand which are consistently predicting growth. Schooling and health measures are deemed to be significant drivers on growth by their method, as they are

highly significant in most models, when other influences are controlled for.

Our central assumption is that the conflict reduced Syrian life expectancy by 13 years, and reduced enrolment by 21 percentage points for primary schooling and by 28 percentage points for secondary schooling.⁸³

The effects of education and health on growth

Barro⁸⁴ provides an early analysis into the positive association between both primary and secondary education and economic growth. In the study, Barro examines the determinants of average growth in a cross section of 98 countries between 1960 and 1985⁸⁵. Education is measured by primary and secondary school enrolment rates in 1960. These variables, constructed from United Nations' data, measure the number of students enrolled in the designated grade levels relative to the total population of the corresponding age group, and seek to measure the total human capital⁸⁶ of a country's workforce. Other variables which are expected to influence economic growth are controlled for, including, starting levels of GDP; public and private investment; and measures of political instability.

Barro's results suggest a positive relationship between both primary and secondary education, and per capita growth rates (all else equal). **A 1 percentage point increase in primary (secondary) school enrolment in 1960 is associated with a 0.025 (0.030) percentage point increase in per capita growth in 1985.**

Barro⁸⁷ expands on earlier growth literature by investigating the two-way relationship between health and economic growth. Barro (and others) find that health indicators such as life expectancy are important indicators of subsequent growth, and may even be a better prediction than initial levels of education. In the growth component of his analysis, Barro⁸⁸ investigates the growth rates of real GDP per capita in 100 countries between 1960 and 1990⁸⁹, controlling for education and life expectancy at birth. The results imply that, all else equal, a rise in life expectancy from 50 to 70 years is associated with an increase in GDP growth on

1.4% percentage points per year⁹⁰. Equivalently, **a 1 per cent increase in life expectancy is associated with an increase in GDP growth of approximately 0.4 percentage points.**

However, there are mixed results for education, with only male upper-level schooling having a significantly positive effect on growth after accounting for the effects of life expectancy. Gallup and Sachs⁹¹ look specifically at the impact of malaria on GDP growth, but they also control for education and life expectancy, meaning the effects of these variables can also be discerned. They emphasise that both education and life expectancy seek to measure human capital, and their methodology is similar to Barro⁹² in that they also conduct a cross-country data set for the 1965-1990 period. Life expectancy at birth is found to have a significantly positive effect on GDP growth across model specifications. For example, in their regression which controls for the possibility of reverse causality between GDP growth and malaria rates, **a 1 per cent rise in life expectancy is associated with a 0.3 percentage points rise in GDP growth.** As with Barro (1996), the paper's education measure shows no significant impact on GDP growth once life expectancy was controlled for.

Doppelhofer, Miller and Sala-i-Martin's⁹³ paper includes life expectancy in number of years and primary school enrolment rate. Their estimated effects of education and health are averaged across a multitude of model specifications, providing a robust estimate. We use the effects reported in this paper to inform our central assumption. In their paper, an additional year of life expectancy raises the growth rate by 0.088 percentage points. Given that the reported reduction in life expectancy as a result of the conflict was 13 years, the implied reduction in growth rate due to a fall in life expectancy is 1.14 percentage points ($0.00088 \times -13 = -0.014$). For education, a percentage-point increase in primary enrolment increases growth by 0.019 percentage points. So a 21 percentage point reduction in enrolment reduces growth by 0.41 percentage points ($0.019 \times -21 = -0.004$). **Adding the health and education effects together, the combined effect on growth is approximately -1.55 percentage points.**

Challenges in separating the effects of health and education

Many studies note that life expectancy and education are often highly correlated and may both capture human capital effects. For example, Bloom, Canning and Sevilla⁹⁴ find average years of schooling and life expectancy have a 0.834 correlation for their 1990 sample. Below we show our own correlations between primary and secondary enrolment, life expectancy, stunting and malnutrition. We find a similarly high correlation between health measures and education. For

example, life expectancy has a highly positive correlation with school enrolment, and stunting has a highly negative correlation with school enrolment.

A high degree of correlation can make it difficult to disentangle the separate effects of life expectancy and schooling⁹⁵, but many papers include both variables in their investigation. We look at how the conflict's damage to human capital affects economic growth by combining observed impacts on health and education.

TABLE 2. Correlation between health and education measures

	Primary enrolment	Secondary enrolment	Life expectancy	Stunting	Malnutrition
Primary enrolment	1.00				
Secondary enrolment	0.73	1.00			
Life expectancy	0.68	0.76	1.00		
Stunting	-0.58	-0.82	-0.69	1.00	
Malnutrition	-0.63	-0.74	-0.61	0.87	1.00

Source: Frontier Analysis and World Development Index

Note: Correlations are given as a value between -1 and 1, where -1 implies the two variables are perfectly uncorrelated and 1 implies the variables are perfectly correlated

IMPLEMENTATION IN OUR MODELLING

In our central modelling, we combine the health and education effects reported in Doppelhofer, Miller and Sala-i-Martin⁹⁶ with our assumption of a 13-year reduction in life expectancy, a 21 percentage point reduction in primary school enrolment and a 28 percentage point reduction in secondary school enrolment. **Taken together, the combined effect on growth is estimated to be approximately -1.55 percentage points.** We then apply this effect to the growth rates in each convergence path. For example, if a convergence path originally has a 14 per cent growth rate, we adjusted this from 14 per cent to 12.45 per cent in the scenario where education and health effects are considered. This gives a slower convergence of Syrian GDP to the counterfactual growth path and a higher cost of conflict.

ENDNOTES

- ¹ Stolen Futures: War and Child Marriage in North West Syria, World Vision Report, June 2020: 9. Available online at: <https://www.wvi.org/sites/default/files/2020-07/Stolen%20Future-War%20and%20Child%20Marriage%20in%20Northwest%20Syria-Online.pdf>
- ² The GDP impacts are expressed in Purchasing Power Parity (PPP) terms, which standardises output in terms of a comparable basket of goods.
- ³ \$1.2 trillion is approximately the full European Union budget for the last 10 years put together from 2009 to 2019 https://ec.europa.eu/budget/graphs/revenue_expenditure.html.
- ⁴ Figures come from the United Nations Financial Tracking Service: Trends in reported funding for the Syrian Arab Republic 2011 – 2021. Accessed: February 2021 at <https://fts.unocha.org/countries/218/summary/2021>
- ⁵ The life expectancy are taken from [https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20\(2010-2015\)%20Executive%20Summary_EN.pdf%20.pdf](https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20(2010-2015)%20Executive%20Summary_EN.pdf%20.pdf), <https://reliefweb.int/report/syrian-arab-republic/2016-syrian-arab-republic-humanitarian-response-plan-january-december> :1.
- The changes in enrolment figures are calculated by combining UN World Development Indicators data with the UNICEF report. WDI data for 2005 reports primary enrolment of 99% and secondary enrolment at 70%. The UNICEF report says primary enrolment (as of 2015) was 78%, implying a 21 percentage point reduction from 99%. The impact on secondary enrolment was not directly stated in the report, but can be estimated from other statistics: The WDI data implies an overall enrolment ratio of 84.5% in 2005 (average of 99% and 70%), while the UNICEF report references a gross enrolment ratio of 60%, thus giving a 24.5 percentage point reduction overall. So if primary schooling enrolment fell by 21 percentage points, secondary enrolment would fall by 28 percentage points to give this overall reduction.
- ⁶ UN Human Rights Council, US must remove sanctions and allow Syria to rebuild – UN expert, 29 December 2020, <https://www.ohchr.org/EN/HRBodies/HRC/Pages/NewsDetail.aspx?NewsID=26630&LangID=E>
- ⁷ Into the unknown: Listening to Syria's displaced in the search for durable solutions, Joint Agency NGO Report, June 2020: 6. Available online at: Accessible online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>
- ⁸ Syria: Humanitarian Situation, UK Parliament, debated on Tuesday 3 November 2020, David Linden MP citing the Syrian Observatory for Human Rights, <https://hansard.parliament.uk/Commons/2020-11-03/debates/915133EC-13D7-4C1A-9543-D1741BEF8435/SyriaHumanitarianSituation#>. Note - statistics vary. Conditions in Syria have not been conducive to a precise counting of deaths, injuries and destruction.
- ⁹ UNHCR Operational Portal, Syria Regional Refugee Response: <https://data2.unhcr.org/en/situations/syria>
- ¹⁰ Nearly 585,000 people have been killed since the beginning of the Syrian Revolution, Syrian Observatory for Human Rights, January 2020. Available online at: <https://www.syriahr.com/en/152189/>
- ¹¹ The life expectancy assumptions are taken from [https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20\(2010-2015\)%20Executive%20Summary_EN.pdf%20.pdf](https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20(2010-2015)%20Executive%20Summary_EN.pdf%20.pdf), <https://reliefweb.int/report/syrian-arab-republic/2016-syrian-arab-republic-humanitarian-response-plan-january-december>, along with pre-conflict UN World Development Indicators.
- ¹² North West Syria Gender Analysis: A Comprehensive Gender and Age Analysis for the Northwest Syria Humanitarian Response, World Vision Report, March 2020: 10.
- ¹³ Stolen Futures: War and Child Marriage in North West Syria, World Vision Report, June 2020: 9. Available online at: <https://www.wvi.org/sites/default/files/2020-07/Stolen%20Future-War%20and%20Child%20Marriage%20in%20Northwest%20Syria-Online.pdf>
- ¹⁴ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict in the Syrian Arab Republic." (S/2018/969): para. 14.
- ¹⁵ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409): para.202; (A/70/836 - S/2016/360): 157; (A/72/361 - S/2017/821): para. 180; (A/72/865 - S/2018/465): para. 190; (A/73/907 - S/2019/509):para. 178; (A/74/845 - S/2020/525): para. 177.
- ¹⁶ The Cost of Conflict for Children, World Vision Report, 2016: 1. Available online at: <https://www.wvi.org/sites/default/files/The%20Cost%20of%20Conflict%20for%20Children%20report%20-%20online%20version.pdf>
- ¹⁷ The costs and economic impact of violence against children, Overseas Development Institute and Child Fund International Report, 2014: 1. Available online at <https://www.odi.org/publications/8845-costs-and-economic-impact-violence-against-children>
- ¹⁸ All the participants were Syrian children and youth aged from 16 to 20. Out of these 122 were internally displaced inside North West Syria, 144 were refugees in Jordan, and 93 were refugees in Lebanon. Overall, 53.2% of the respondents were female and 46.8% were male. The survey was carried out in January 2021.
- ¹⁹ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409), para. 197; (A/70/836 - S/2016/360) para. 197; (A/72/361 - S/2017/821) para. 176; (A/72/865 - S/2018/465) para. 188; (A/73/907 - S/2019/509) para. 176; (A/74/845 - S/2020/525) para. 175.
- ²⁰ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict in the Syrian Arab Republic" (S/2018/969) para. 29
- ²¹ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/66/782 – S/2012/261), paras. 119 – 126; (A/67/845–S/2013/245) paras. 150 – 159; (A/68/878–S/2014/339) paras. 146, 147, 150.
- ²² Ibid. Para. 29
- ²³ Ibid. Para. 27
- ²⁴ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409); (A/70/836 - S/2016/360); (A/72/361 - S/2017/821); (A/72/865 - S/2018/465); (A/73/907 - S/2019/509); (A/74/845 - S/2020/525). Note: The UN Monitoring and Reporting Mechanism (MRM) began monitoring, verifying and reporting grave violations of children's rights in the Syrian Arab Republic in 2014, with MRM data presented for the first time in the Secretary-General's 2015 report (S/2015/409).
- ²⁵ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409); (A/70/836 - S/2016/360); (A/72/361 - S/2017/821); (A/72/865 - S/2018/465); (A/73/907 - S/2019/509); (A/74/845 - S/2020/525). Note: (1) The UN Monitoring and Reporting Mechanism (MRM) began monitoring, verifying and reporting grave violations of children's rights in the Syrian Arab Republic in 2014, with MRM data presented for the first time in the Secretary-General's 2015 report (S/2015/409). (2) MRM reporting varies year to year such that 'attacks on education facilities' and 'attacks on education personnel' or 'attacks on health facilities' and 'attacks on health personnel' are reported

separately, to be added together for a combined total, or 'attacks on education' and 'attacks on health' figures are listed, with attacks on personnel listed as being 'included' within the total figure. Summary figures have been tabulated according to the narrative text for that violation in the respective annual reports.

²⁶ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409); (A/70/836 - S/2016/360); (A/72/361 - S/2017/821); (A/72/865 - S/2018/465); (A/73/907 - S/2019/509); (A/74/845 - S/2020/525).

²⁷ After almost ten years of war in Syria, more than half of children continue to be deprived of education, UNICEF Joint statement, 24 January 2021, available at: <https://www.unicef.org/press-releases/after-almost-ten-years-war-syria-more-half-children-continue-be-deprived-education>

²⁸ Findings of Attacks on Health Care in Syria, Physicians for Human Rights, March 2020. Available online at: [syriamap.phr.org/#/en/findings](http://www.phr.org/en/findings)

²⁹ In 4 years, 494 attacks on health killed 470 patients and health staff in Syria, World Health Organization, March 2020. Available online at: <http://www.emro.who.int/syr/syria-news/in-4-years-494-attacks-on-health-killed-470-patients-and-health-staff-in-syria.html>

³⁰ UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409); para. 203; (A/70/836 - S/2016/360); para. 159; (A/72/361 - S/2017/821)" para. 181; (A/72/865 - S/2018/465); para. 191; (A/73/907 - S/2019/509); para. 178; (A/74/845 - S/2020/525): 177.

³¹ Syrian Arab Republic: Recent Developments in Northwest Syria, OCHA, 26 January 2021. Available online at: https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/nw_syria_sitrep24_20210126.pdf

³² UN Security Council. "Report of the Secretary-General on Children and Armed Conflict" (A/69/926 - S/2015/409); para. 196; (A/70/836 - S/2016/360); para. 153; (A/72/361 - S/2017/821); para. 174; (A/72/865 - S/2018/465); para. 186; (A/73/907 - S/2019/509); para. 175; (A/74/845 - S/2020/525); para. 174.

³³ Stolen Futures: War and Child Marriage in North West Syria, World Vision Report, June 2020: 16. Available online at: <https://www.wvi.org/sites/default/files/2020-07/Stolen%20Future-VWar%20and%20Child%20Marriage%20in%20Northwest%20Syria-Online.pdf>

³⁴ USAID. [Aid Workers Security Database](#). Accessed: January 2021.

³⁵ The Cost Of Conflict For Children: Five Years Of The Syria Crisis, World Vision Report, March 2016: 20-22. Available online at: <https://www.wvi.org/sites/default/files/The%20Cost%20of%20Conflict%20for%20Children%20report%20-%20online%20version.pdf>

³⁶ As the updated GDP series only runs up to 2019, 2020 data have been imputed by assuming growth at the same rate as the previous three years. This does not take into account further economic effects from the devaluation of the Syrian pound and the associated impact of inflation on living costs, for example. For simplicity, we also do not model the effects of Covid-19. While it would negatively impact both actual GDP and the hypothetical non-conflict GDP, it is not obvious which of these would be more affected, so no assumptions are made on its effects on recovery to the non-conflict growth path.

³⁷ See annex for details of the model we use to project growth rates in the absence of conflict.

³⁸ Updated estimates of the impact of COVID-19 on global poverty: Looking back at 2020 and the outlook for 2021, World Bank blog post. Accessed: January 2021. Available online at:

<https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>

³⁹ COVID-19 to Add as Many as 150 Million Extreme Poor by 2021, World Bank press release. Accessed: January 2021. Available online at: <https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021>

⁴⁰ The costs and economic impact of violence against children, Overseas Development Institute and Child Fund International Report, 2014: 1. Available online at <https://www.odi.org/publications/8845-costs-and-economic-impact-violence-against-children>

⁴¹ Mind the Gap: Why Mental Health Care Matters for Rebuilding Syria, Center for Strategic and International Studies article, March 2018.

Available online at <https://www.csis.org/npfp/mind-gap-why-mental-health-care-matters-rebuilding-syria>

⁴² Determinants of long-term growth: A Bayesian averaging of classical estimates (BACE) approach. Sala-i-Martin, X., Doppelhofer, G., & Miller, R., American Economic Review, 2004: 813-835.

⁴³ Please refer to the annex for a discussion of the literature.

⁴⁴ The life expectancy and enrolment assumptions are taken from [https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20\(2010-2015\)%20Executive%20Summary_EN.pdf%20.pdf](https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20(2010-2015)%20Executive%20Summary_EN.pdf%20.pdf), <https://reliefweb.int/report/syrian-arab-republic/2016-syrian-arab-republic-humanitarian-response-plan-january-december>, along with pre-conflict UN World Development Indicators.

⁴⁵ Global Wage Report, ILO Report, 2020: p 188.

⁴⁶ The Mobility of Displaced Syrians: An Economic and Social Analysis, World Bank report, February 2019: 169-171. Available online at: <https://www.worldbank.org/en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis>

⁴⁷ Into the unknown: Listening to Syria's displaced in the search for durable solutions, Joint Agency NGO Report, June 2020: 13. Available online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>

⁴⁸ Ibid. p. 20.

⁴⁹ With refugee resettlement at a record low in 2020, UNHCR calls on States to offer places and save lives, UNHCR press release, 25 January 2021. Available online at: <https://www.unhcr.org/news/press/2021/1/600e79ea4/refugee-resettlement-record-low-2020-unhcr-calls-states-offer-places-save.html>

⁵⁰ Returnee Report Series 2020: Socio-Economic and Shelter Conditions, HNAP report, February 2021: 7-8.

⁵¹ See source: 47% of returnees are dependents – ratio conversion. Returnee Report Series 2020: Demographic Overview, HNAP Report, February 2021: 1.

⁵² 'Dependents' are defined as those below or above working age (<16 or >64)

⁵³ World Bank's Age Dependency Ration (SP_POP_DPND), Syria 2019. Available online at: <https://data.worldbank.org/indicator/SP.POP.DPND>

⁵⁴ Into the unknown: Listening to Syria's displaced in the search for durable solutions, Joint Agency NGO Report, June 2020: 6. Available online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>

⁵⁵ World Vision surveyed and spoke with a total of 379 children and young people, both internally displaced (IDPs) in North-West Syria, and Syrian refugees in Jordan and Lebanon. 329 were surveyed: of these 175 were girls and 154 boys. 45 participated in Focus Group Discussions in North West Syria or Jordan, and 5 were interviewed remotely in place of Focus Groups in Lebanon, due to COVID19 restrictions.

⁵⁶ 55,2% male respondents confirmed having challenges to education across the countries interviewed in comparison with only 40% of the girls. This is also evidenced in the Joint Education Needs Assessment Report "Access to Education for Syrian Refugees Children and Youth in Jordan Host Communities" report, 2015: 59.8% of boys were enrolled in education in comparison with 63.5% girls. https://reliefweb.int/sites/reliefweb.int/files/resources/REACH_JENA_HC_March2015.pdf

⁵⁷ The Obstacle Course: Barriers to Education for Syrian Children in Lebanon, Norwegian Refugee Council report, 2020: 2-5. https://www.nrc.no/globalassets/pdf/reports/the-obstacle-course-barriers-to-education/executive-summary---the-obstacle-course_barriers-to-education.pdf

⁵⁸ Into the unknown: Listening to Syria's displaced in the search for durable solutions, Joint Agency NGO Report, June 2020: 8. Available online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>

⁵⁹ 84.2% of IDP young people surveyed think they could return to their hometown during the next two years, and 97.4% of them want to. Refugees are less confident that a return will be possible: 80.9% do not think they will be able to return to Syria within the next 2 years. Those in Lebanon were more willing to return to Syria (65.6%) than those in Jordan (35.1%).

⁶⁰ Global Humanitarian Overview, Syrian Arab Republic. Accessed: 24 February 2020. Available online at: <https://hum-insight.info/#:~:text=In%202021%2C%2035%20million%20people,the%20highest%20figure%20in%20decades.>

⁶¹ *US must remove sanctions and allow Syria to rebuild – UN expert*, UN Human Rights Council press statement, 9 December 2020. Available online at: <https://www.ohchr.org/EN/HRBodies/HRC/Pages/NewsDetail.aspx?NewsID=26630&LangID=E>

⁶² *Into the unknown: Listening to Syria's displaced in the search for durable solutions*, Joint Agency NGO Report, June 2020: 6. Available online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>

⁶³ *Into the unknown: Listening to Syria's displaced in the search for durable solutions*, Joint Agency NGO Report, June 2020: 7. Available online at: <https://dsp-syria.org/sites/default/files/2020-06/Into%20the%20Unknown.pdf>

⁶⁴ Percentage calculated by World Vision based on UNHCR resettlement data available here: https://data2.unhcr.org/en/situations/syria_durable_solutions

⁶⁵ Regional Strategic Overview 2021-2022, Regional Refugee and Resilience Plan, March 2020:11 Available online at: http://www.3rpsyriacrisis.org/wp-content/uploads/2021/03/RSO_2March2021upd.pdf

⁶⁶ Syrian Government and opposition forces responsible for war crimes – UN panel, UN News, 15 August 2012. Available online at: <https://news.un.org/en/story/2012/08/417632-syrian-government-and-opposition-forces-responsible-war-crimes-un-panel>

⁶⁷ Syria Regional Response Plan, UNHCR, 2014: 6. Available online at: <http://data.unhcr.org/syrianrefugees/regional.php>

⁶⁸ *14 million children impacted by conflict in Syria and Iraq*, UNICEF press release, 12 March 2015. Available online at: https://www.unicef.org/media/media_81172.html

⁶⁹ *Hitting Rock Bottom: How 2016 Became The World Year for Syria's Children*, UNICEF Report, March 2017: 2. Available online at: <https://www.unicef.org/media/files/UN055709.pdf>

⁷⁰ Four million Syrian children have only known war since birth, UNICEF press statement, 13 December 2018. Available online at: <https://news.un.org/en/story/2018/12/1028461>

⁷¹ Syrian Arab Republic: Recent Developments in Northwestern Syria, UNHCR Situation Report No. 13, 8 October 2019. Available online at: <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-recent-developments-northwestern-syria-situation-6>

⁷² *Recent Developments in Northwest Syria*, UNHCR Situation Report No. 9, 26 February 2020. Available online at: <https://reliefweb.int/report/syrian-arab-republic/recent-developments-northwest-syria-situation-report-no-9-26-february>

⁷³ Real GDP growth.

⁷⁴ We chose a sample period running from 1995 to 2015, covering 123 countries. Countries with significant gaps were dropped from the dataset – predominantly Sub-Saharan Africa, smaller countries and dependencies

⁷⁵ Insignificant variables in the wider dataset but dropped from the model are manufacturing share of GDP, natural resource rents share of GDP, unemployment rate and population density.

⁷⁶ Note that this model assumes the effects of growth drivers are constant over time, and that global shocks have similar impacts across countries. It is possible that some drivers may decline or increase in importance over time if, for example, some sectors undergo particular bouts of innovation at certain times, giving greater scope for growth. It is also possible that in addition to global shocks, there may be temporal shocks common to sub-groups of countries, e.g. the Eurozone crisis, the Asian financial crisis in 1999.

⁷⁷ *Next Generation of the Penn World Table*, by Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), *The American Economic Review*, 105(10), 3150-3182. Available for download at: www.ggd.net/pwt

⁷⁸ *Syria Education Sector Analysis: The effects of the crisis on education in Syria, 2010-2015*, UNICEF report, 2016: 3. Available online at [The effects of the crisis on education in Syria \(2010-2015\) Executive Summary_EN.pdf .pdf \(unicef.org\)](https://www.unicef.org/syria/files/Syria_Education_Sector_Analysis_The_effects_of_the_crisis_on_education_in_Syria_2010-2015_Executive_Summary_EN.pdf)

⁷⁹ Ibid 76: 3.

⁸⁰ Ibid 76: 3.

⁸¹ Real GDP growth.

⁸² Sala-i-Martin, X., Doppelhofer, G., & Miller, R. (2004). Determinants of long-term growth: A Bayesian averaging of classical estimates (BACE) approach. *American economic review*, 813-835.

⁸³ The life expectancy assumptions is directly taken from [https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20\(2010-2015\)%20Executive%20Summary_EN.pdf%20.pdf](https://www.unicef.org/mena/media/6771/file/The%20effects%20of%20the%20crisis%20on%20education%20in%20Syria%20(2010-2015)%20Executive%20Summary_EN.pdf%20.pdf), <https://reliefweb.int/report/syrian-arab-republic/2016-syrian-arab-republic-humanitarian-response-plan-january-december>, along with pre-conflict UN World Development Indicators

⁸⁴ Barro, R. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 407-443.

⁸⁵ The literature often considers longer term average growth rates, rather than analysing yearly growth rates. Barro (1996, p. 9) explains that this is due to the fact that the underlying economic theory relates to long term growth, and because the variables used in growth regressions are usually only accurately measured in 5 to 10 year periods.

⁸⁶ The skills, knowledge, and experience possessed by an individual or population.

⁸⁷ Barro, R. (1996). Health and economic growth. *World Health Organization*.

⁸⁸ Ibid.

⁸⁹ Barro (1996) analyses growth rates as a panel set up, meaning the dependant variables are average growth rates over three separate periods: 1965-75, 1975-85, 1985-90. This is different to Barro (1991) where the dependant variable was the average growth rate over the entire period, 1960-1985.

⁹⁰ Barro, R. (1996). Health and economic growth. *World Health Organization*.

⁹¹ Gallup, J., & Sachs, J. (2001). The economic burden of malaria. *The American journal of tropical medicine and hygiene*, 64, pp.85-96.

⁹² Barro, R. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 407-443.

⁹³ Sala-i-Martin, X., Doppelhofer, G., & Miller, R. (2004). Determinants of long-term growth: A Bayesian averaging of classical estimates (BACE) approach. *American economic review*, 813-835.

⁹⁴ Bloom, D., Canning, D., & Sevilla, J. (2004). The effect of health on economic growth: a production function approach. *World development*, 32(1), 1-13.

⁹⁵ Ibid.

⁹⁶ Sala-i-Martin, X., Doppelhofer, G., & Miller, R. (2004). Determinants of long-term growth: A Bayesian averaging of classical estimates (BACE) approach. *American economic review*, 813-835.

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