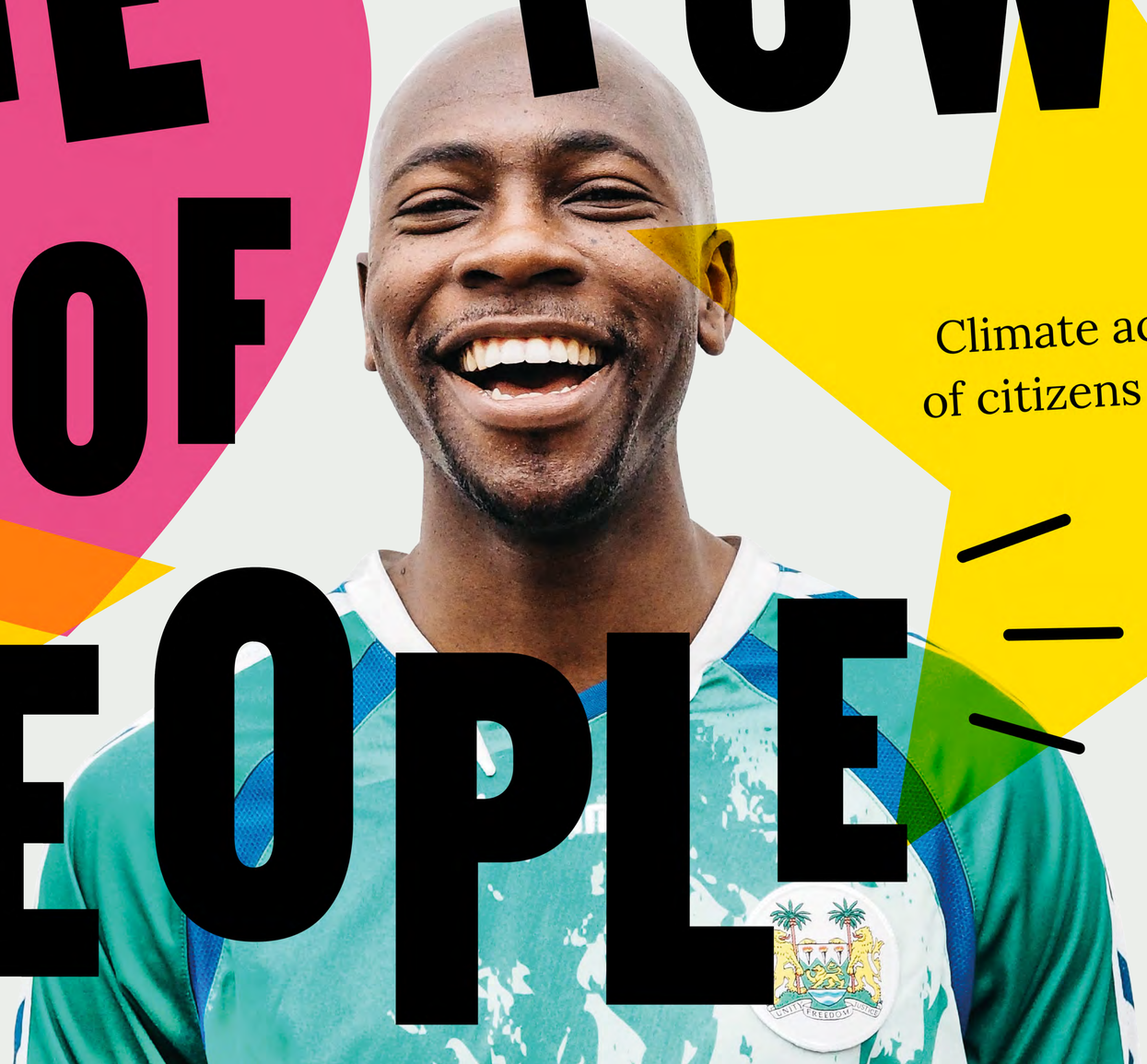
# THE POWER OF PEOPLE



Climate action and the role of citizens and communities.

THE JUMP

ARUP

# THIS REPORT

This report is published by the charity and grassroots climate movement The JUMP. The core analysis was been kindly undertaken by ARUP, and consists of a new assessment of data and evidence developed by Arup, the University of Leeds and C40 in a 2019 research collaboration, The Future of Urban Consumption in a 1.5 Degree World. C40 have reviewed and commented on the work, and support its findings. No new primary data has been collected in this work, but the original evidence base has been revisited to allow new analysis and the generation of new findings and conclusions. This new analysis allowed the team to quantify the potential of individuals and communities acting to reduce our impact on climate change – and conclude that the potential influence of such action on a society-wide basis is far more significant than often thought.

The IP for the original evidence base was kindly been provided by the University of Leeds for the creation of this research. Arup undertook this analysis as a pro-bono donation.

Unless clearly stated otherwise, all content and interpretive commentary is by The JUMP, and represents views of The JUMP only. Content, data, analysis and commentary provided by other partners is clearly labelled as such.

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THE JUMP ARUP C40 CITIES

# PARTNERS:

**The JUMP** is a joyous, grassroots environmental movement working to inspire and empower citizens and communities to act on climate change. Specifically, to 'take The JUMP', by trying six shifts to protect our planet, live with joy and meet great people. The JUMP provides the support, tools, and community to help along the way.

**www.takethejump.org**

**ARUP** is an independent firm of designers, planners, engineers, architects, consultants and technical specialists, working across every aspect of today's built environment. We're more than 16,000 specialists, working across 90+ disciplines, with projects in over 140 countries.

**www.arup.com**

**C40 CITIES** is a network of mayors of nearly 100 world-leading cities collaborating to deliver the urgent action needed right now to confront the climate crisis. C40 mayors have been at the forefront of climate leadership for over 15 years, driving the conversation around climate action and environmental justice to place these issues front and centre in our local policies and on the international agenda.

**www.c40.org**

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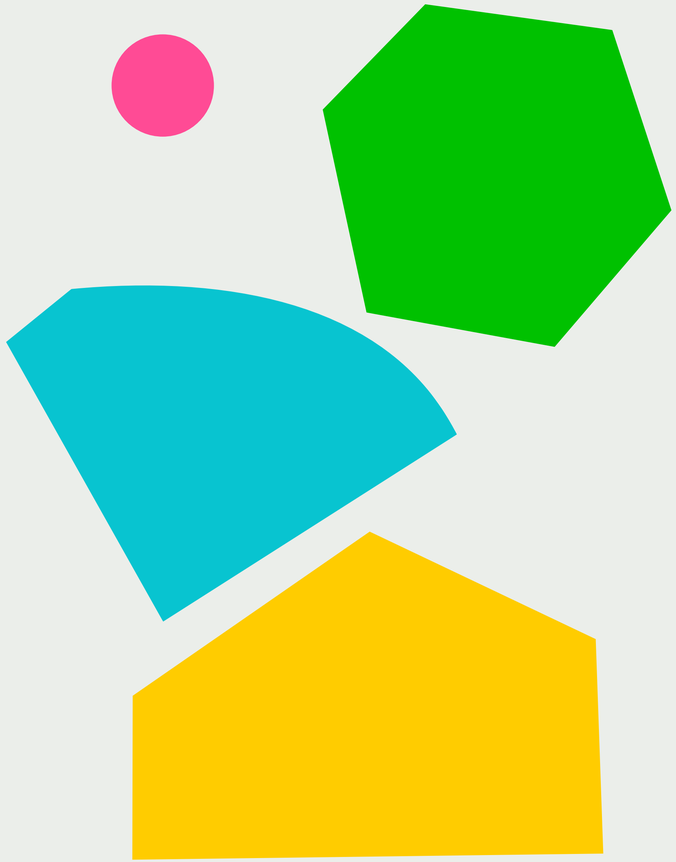




THE JUMP

# SUMMARY


**WE NEED ALL ACTION, FROM ALL ACTORS. NOW!**

# SUMMARY



More and more people around the world are becoming concerned for the state of our planet, and are willing to act. Yet many also feel confused and powerless. Sure, there is a wealth of information out there on what changes individuals can make that will have the most impact. But so what, will this really make any difference when compared to the size of a 21st century global economy? Isn't it really just up to governments and industry to act, and the best we can hope for is to pressure them to do so? Is talk of citizen action even a dangerous distraction?

## ARE INDIVIDUALS POWERLESS IN PREVENTING ECOLOGICAL BREAKDOWN, OR CAN THEY HAVE A SIGNIFICANT AND DIRECT IMPACT IN THE HERE AND NOW?

That's the urgent question this report aims to offer a simple, quantified answer to. At the request of new citizen-led climate movement The JUMP, ARUP has revisited their ground-breaking 2019 research collaboration with the University of Leeds, and C40 Cities. The original research looked at the impact of consumption on greenhouse gas emissions. It showed that to avoid ecological breakdown a 2/3 reduction in the impact of consumption is required by rich countries within 10 years. This staggering shift can be achieved through changes across key sectors such as buildings, energy, food, transport, appliances, trade and textiles.

This new analysis has considered which of those changes citizens and communities have primary influence over, allowing us to outline what action citizens can take, and how much impact that will have.

This is what is unique about this report. We are able to look at the impact of wide scale citizen action in the context of our whole economy, when compared to action by government, industry and others. The findings are profound and clearly indicate that:

**CITIZENS HAVE PRIMARY INFLUENCE OVER**

**25-27%**

**OF THE SAVINGS NEEDED BY 2030**

# THE POWER OF PEOPLE

**THIS RESEARCH SHOWS CITIZENS AND COMMUNITIES ARE NOT POWERLESS IN PROTECTING OUR PLANET!**
**THEIR ACTION IS MEANINGFUL, IMPACTFUL, AND ACTUALLY URGENTLY NEEDED.**

THE JUMP

## THE DATA

Consumption emissions savings needed by 2030 in North American and European countries, to avoid ecological breakdown

Actions where:

**GOVERNMENT AND INDUSTRY HAVE PRIMARY INFLUENCE**

*(*Things citizens can influence indirectly)*

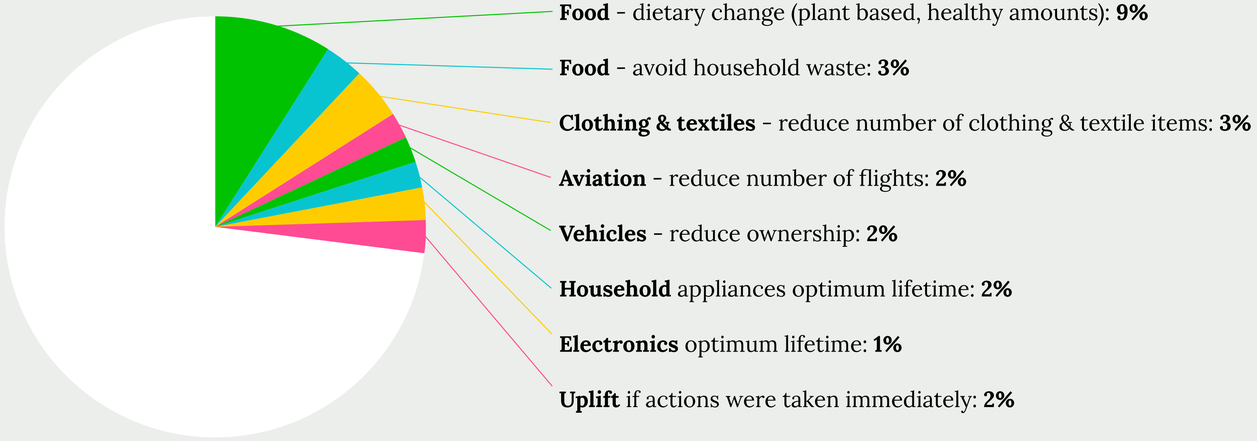
**75-77%**

Actions where:

**CITIZENS HAVE PRIMARY INFLUENCE**

*(*Things citizens can influence directly)*

**25-27%**



- **Food** - dietary change (plant based, healthy amounts): **9%**
- **Food** - avoid household waste: **3%**
- **Clothing & textiles** - reduce number of clothing & textile items: **3%**
- **Aviation** - reduce number of flights: **2%**
- **Vehicles** - reduce ownership: **2%**
- **Household** appliances optimum lifetime: **2%**
- **Electronics** optimum lifetime: **1%**
- **Uplift** if actions were taken immediately: **2%**


## THE CONCLUSIONS

### 1 Citizens have primary influence over 25-27% of the savings needed by 2030 to avoid ecological meltdown, by making key lifestyle changes!

Achieved through reducing vehicle ownership, changing eating habits, reducing flying, reducing the number of new clothes purchased, and keeping electronics and appliances for as long as possible. This is the JUMP that all citizens and communities can make, **click here** to get help making these changes.

### 2 The 25-27% is actually a minimum figure for the impact of citizens, because citizens can also have indirect influence on large portions of the remaining 73%.

Citizens can also have indirect influence over government and industry, encouraging them to make the changes needed. For instance through consumer demand or political activity to influence policy. This is the JUMP that all citizens and communities can make, click here to get help having an infleunce.

### 3 At the same time, government and industry still have most responsibility

Government and industry are still responsible for the large majority of needed emissions reductions, **73%**. For example by decarbonising electricity supplies.

They also have a role in facilitating the transitions needed by individuals to ensure the **25-27%**. For instance, by ensuring there are accessible, affordable low carbon transport options. There is no one lead actor: we need all a ction from all actors now!

### 4 Individual action is particularly relevant between now and 2030, the most important decade for climate action.

Given the time it takes for robust and urgent action by governments and industry to deliver deep reductions, it is vital that citizens take these actions by 2030.

### 5 For the changes led by citizens and communities, it is higher income groups that must take faster and bigger action

Lower income groups tend to exhibit lower levels of high impact behaviour such as flying and multiple vehicle households. As a result, when considering lower income groups, the responsibility for making shifts is lower than high income groups, dropping from covering 25-27% of emissions to just 9%.

# TAKE THE JUMP BY TRYING SIX SHIFTS TO PROTECT OUR EARTH AND LIVE WITH JOY



## TRY THE SHIFTS WE CAN ALL MAKE TO DIRECTLY DELIVER UP TO A 27% SAVING BY 2030

**EAT GREEN:** Combing reducing household food waste to zero and a shift to a mostly plant based diet, would deliver 12% of the total savings needed by North American and European countries.

**DRESS RETRO:** By reducing the number new items of clothing to a target of three, maximum eight, delivering 6% of the total savings needed.

**HOLIDAY LOCAL:** As close as is possible, reduce personal flights to one short-haul flight every three years, and one long-haul every eight years.

**TRAVEL FRESH:** For those who can, reducing vehicle ownership and if possible moving away from personal vehicle ownership, would deliver 2% of the total savings needed by 2030.

**END CLUTTER:** By optimising the lifetime of both electronics and appliances, keeping them for at least seven years, would deliver the 3% of the total savings needed.


## ENCOURAGE CHANGE IN THE SYSTEMS AROUND US TO DELIVER THE REMAINING 73%

**CHANGE THE SYSTEM:** To influence the remaining 73% of emissions citizens could take action that encourages and supports industry and government to make the urgently needed, high impact changes to 'change the system', For instance swapping to a green energy supplier, changing to a green pension, retrofitting our homes, or taking political action. Taking the jump involves trying at least one of these interventions.

# QUOTES



## ARUP

Ben Smith,
Director of climate change

As the scientific evidence mounts, it's clear that we all must do more and with greater urgency, to reduce emissions and mitigate the threat of climate change. Our research shows that all of us, from politicians, city and business leaders to individual citizens, have important roles to play. We can all show leadership to inspire those around us. We are delighted that our research has catalysed The Jump. The platform, six shifts and community toolbox are informed by science, and it's exciting to see the movement growing. It's a positive movement aimed at raising awareness amongst ordinary people and providing support and encouragement to make simple lifestyle changes that can make a big difference.

## C40 CITIES

Rachel Huxley,Director of knowledge and learning

This analysis shows the collective impact that individuals, and individual choices and action, can contribute to combating climate change. This is really important in showing that citizen action really does add up, and alongside government and private sector action, individuals can make a major contribution to tackling climate change. At C40 cities we see clearly the power of citizens in asking for, supporting and acting for change. And whilst we know that the climate crisis isn't a question of who should act, because we all need to act in order to achieve 1.5D, this report's focus and findings is welcome as it provides hope for all the citizens out there that they can make a difference.

## THE JUMP

Tom Bailey,
co-founder

This pioneering analysis ends once and for all the debate about whether citizens can have a role in protecting our earth. We don't have time to wait for one group to act, we need 'all action from all actors now'. It is in direct response to this analysis, and the evidence that there are clear six shifts we all need to make in the next ten years, that a new movement has been born. The JUMP is a fun grassroots movement of people leading the way to less 'stuff and more joy'. Coming together to make practical changes, support and inspire each other, celebrate success and drive a shift in society's mindsets and cultures. It all starts today with citizens and communities 'taking The JUMP', by trying the 6 Shifts. We are hugely grateful to Arup, C40 and the University of Leeds for making this analysis and the work leading up to it available to all.

# BACKGROUND

# 1.1 THE ONGOING DEBATE ABOUT THE ROLE OF CITIZENS AND COMMUNITIES - THE 'FIRST MOVER PROBLEM'

## CITIZENS ARE CONCERNED FOR THE PLANET AND WANT ACTION

A recent poll of G20 countries showed that 83% of citizens are now concerned about the very real and deteriorating state of our planet, and are more willing to act. Research by UNDP demonstrated a similar trend in the wider world . As we push on from COP26 and governments continue to lack the ambition needed, we need to see where else we can drive immediate and high impact action.

The question therefore is, can citizens take action that is significant and meaningful, leading to a direct reduction in environmental impact? Or are citizens the passive recipients of the world around them, unable to make change until systems make it easy? Is protecting the planet really the job of governments and big business? Who needs to make the first move? These are the questions this report aims to offer a simple, quantified answer to.

## CITIZENS OFTEN FEEL THEY ARE POWERLESS AND THAT THEIR ACTIONS ARE TOO SMALL TO BE RELEVANT

This is a live question for The JUMP, an organisation that has been working to inspire and activate citizens and communities to act throughout 2021. When we speak to people, we regularly hear comments like:

***"It's not up to me and my family to act, I heard only 100 companies emit 70% of the world emissions and so what is the point us doing anything?"***

***"Governments have the most power and are the ones that must act first."***

***"Until the conditions are right, it's impossible for citizens to have an impact because of the systemic barriers we face. How can I shift my mode of transport when there is no alternative to the car where I live?"***

These essentially boil down to the notion that another group must take action first, and it's 'not me'. In the case of individuals, the feeling is that government and industry are not taking sufficient action, and until then citizen action is meaningless. Part of the reason for this is that certain high-emitting industries have often actively seek to push responsibility for action onto citizens rather than act for themselves. For instance, the 'litter bug' campaigns in the US in the 70's and onwards (such as Keep America Beautiful campaign funded by packaging companies). This 'first mover' debate has hobbled action for decades.

While there is already good evidence that this debate is a false one, and that in fact systemic change and citizen action are two sides of the same coin, and that all actors have important parts to play, there remains limited clear evidence around the real scale and potential reach of citizen direct action.

## CITIZENS ARE CONFUSED ABOUT WHAT LEVEL OF ACTION IS MOST HELPFUL

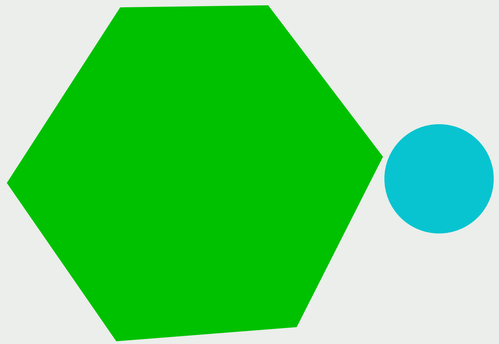
While there may be strong awareness that individuals do have some degree of influence by citizens, there is often confusion about the level of change required. About how much is enough.

***"Sure there's plenty of information showing how regular flying leads to very high personal emissions, but what is the target for us as individuals? Do we all have to give up flying entirely or is there a safe balance?"***

To have a clear set of convergence points that citizens can set as a medium-term target would be hugely helpful in ending the debate about how much is enough, giving confidence that we're hitting the level of change needed to avoid meltdown.

# 1.2 EXISTING RESEARCH DEMONSTRATES THE IMPORTANCE OF REDUCING THE IMPACT OF CONSUMPTION

In 2019 Arup, C40 and Leeds University produced a ground-breaking piece of research called The Future of Urban Consumption in 1.5 Degree World. It looked at the impact of urban consumption on climate breakdown and explored the type and scale of changes needed to ensure that GHG emissions are reduced in line with internationally agreed, climate-safe limits. The work focused on consumption in cities, offering a full picture of typical consumption patterns and impacts of citizens all around the world.



The research showed that by 2030 we need a 2/3 reduction in the emissions impact of consumption in cities in rich countries. This is a transformative scale of reduction and can be achieved mostly across six consumption categories: food; buildings and infrastructure; private transport; aviation; clothing and textiles; and electronics and household appliances.

The research outlined the actions that need to be taken to achieve this reduction, and the different actors who have the influence to drive these actions. It focused on local government, national government, industry and citizens. It is important to be clear where different actors should focus their efforts, because almost all the necessary changes are influenced by the actions of national and local government, business and citizens – but to differing degrees. So, who has most influence will vary depending on the type of climate action needed. In each case, one of these groups will have the most influence, with another group having a secondary but still important role, and others having little or no role. At the time the research mapped these links, but did not quantify the scale of impact on reducing consumption emissions that could be achieved through these mapped actions.

The search also demonstrated that high-consuming countries have the most impact, and must reduce consumption fastest. The global reduction in consumption emissions needed by 2030 is 50%, but in rich countries a 2/3 reduction is needed because their current consumption is so high.

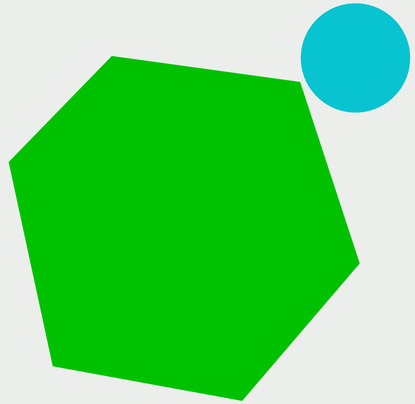
# 1.3 AN OPPORTUNITY TO ANSWER A VITAL QUESTION

The team considered it so important to use this evidence base in the original research to answer the question of how much influence and power citizens actually have to reduce emissions. Therefore in 2021, The JUMP asked the organisations that were part this research collaboration to return to that analysis and answer an important question:

***Of the consumption-based emissions (CBE) reductions needed in high consuming countries by 2030, what proportion of these savings could come from actions that citizens can implement?***

As mentioned above, high income countries need to reduce the most and reduce first, and so the focus of this work is on high consumption countries in North America and Europe.

Note: This work does not quantify the potential indirect impact of citizen-led 'political action' – such as activism, lobbying or any other effort to reduce consumption emissions through indirectly influencing others to change, such as encouraging government and industry to change their activities and policies. Instead, this research quantifies the impact of actions that citizens can take that will have a *direct* impact on the scale of consumption emissions. See Definitions Box for further explanation. This is not to say that such indirect activities are not of value - and they are considered qualitatively within this work - it is just that calculating their likely impact is beyond the scope of this work due to its complexity.



# 1.3 DEFINITIONS

**CLIMATE 'ACTION':** Interventions made by citizens, businesses, governments or any other actor, that aim to reduce GHG emissions. For instance changing diet, introducing low carbon aviation fuel, setting a national decarbonisation target.

**CLIMATE 'ACTOR':** Citizens, communities, businesses, institutions, governments, or any other entity that can take climate action.

**PRIMARY INFLUENCER** A climate actor (see above) is said to have *primary influence* over the delivery of a climate action (see above), if they are the most important actor in delivering that action, and without them the action could not be implemented. For instance, introducing new low-carbon aviation technologies such as zero carbon aviation fuels, is a clear and necessary climate action. The aviation industry is the primary actor in delivering this action as the designers, procurers and operators of aircraft. For reducing the number of flights taken, the primary influencer is citizens as those who ultimately create the demand for flyer.

**SECONDARY INFLUENCER:** A climate actor (see above) is said to have *secondary influence* over the delivery of a climate action (see above), if they have an important role in enabling that action but are not the lead actor. In the case above, national governments will have an important role in setting policy and targets to encourage the airline industry to invest in and deliver low carbon aviation technologies swiftly. Government also has a role in supporting citizens reduce flights by making sure there are alternative low-cost long-distance travel options such as rail. In both these cases national government has 'secondary influence.'

**DIRECT IMPACT:** An action that has a direct impact is one that leads to a reduction in emissions without requiring any other actors to also take action. For instance by reducing energy use in an industrial plant, this will directly result in less energy use nationally and hence less GHG emissions. Or if a government invests in a fleet of electric vehicles for its operations, this will directly lead to lower fossil fuel emissions in it's operations. The impacts of these actions can be calculated reliably due to being able to allocate the full emissions impact to the action.

**INDIRECT IMPACT:** Indirect impacts are those where an actor takes an action that does not lead directly to GHG emissions reductions, but encourages others to do so, or puts in place the conditions for others to act. For instance a government providing R&D funding for academia and industry to create a new technical solution, is an indirect action from the point of view of the eventual emissions reductions delivered by that new solution. Or political campaigning by civil society that leads to governments taking more concrete climate action is indirect because it is the government that takes the action in the end. The impacts of these actions are much more complex to calculate.

**CONSUMPTION EMISSIONS:** The consumption-based approach captures direct and lifecycle GHG emissions of goods and services (including those from raw materials, manufacture, distribution, retail and disposal) and allocates GHG emissions to the final ***consumers*** of those goods and services, rather than to the original ***producers*** of those GHG emissions.

# APPROACH


## THE METHOD USED TO DEVELOP NEW FINDINGS BASED ON THE EARLIER RESEARCH.

## ANALYTICAL METHODOLOGY - ARUP

For an explanation of the full method used in the original study, please see pages 25-31 of that report. This analysis builds on that approach by identifying the contribution of citizen action to overall emissions reduction in high-income cities, where high-income cities corresponded to the 40 cities from the original 2019 research in Europe, North America, Oceania and certain Asian nations.

The resulting data for each of the high-income cities was extracted for four previously modelled scenarios:

- **No Further Climate Action**
- **National Determined Contributions + city-level commitments**
- **Nationally Determined Contributions + city-level commitments + ambitious consumption interventions**
- **1.5-degree target**

The results were aggregated for all high-income cities and summed over the period 2021-2030. This analysis showed that ambitious consumption interventions have the potential to cover 32% of the gap between the 'No Further Climate Action' and the '1.5-degree target' scenarios during this period.

Next, the ambitious consumption interventions were reviewed against the stakeholder mapping framework. The framework was developed alongside the original 2019 research to identify how climate actions are distributed across cut different supply chain actors. The framework states that high-income citizens have the ability to directly deliver 6 of the consumption interventions modelled in the original 2019 research. These are:

- **Reduce number of flights**
- **Reduce the number of new clothing items bought each year**
- **Optimise lifetimes of IT equipment**
- **Reduce household waste**
- **Dietary change to lower meat and dairy consumption**
- **Reduce car ownership**

During the period between 2021-2030, these 6 interventions account for 78% of the total emissions reduction from changes in consumption behaviour.

It should be noted that it is not only citizens that have the ability to directly deliver these 6 interventions. In some cases, business and government also have strong influence, but the point here is that each actor can act unilaterally, without dependence on another. All stakeholders must use their influence to deliver the savings needed by 2030 to align with a 1.5-degree future.

For an explanation of the full method used in the original study, please see pages 62-65 of that work.

It is acknowledged that this new analysis is based on an assessment of data processed in 2019. While this may mean the data set misses the likely small changes to conditions between 2019 and 2022 (such as changes in consumption patterns, increased income levels etc) , it is the view of the authors that the key trends and propositions of this analysis will be accurate in 2022.



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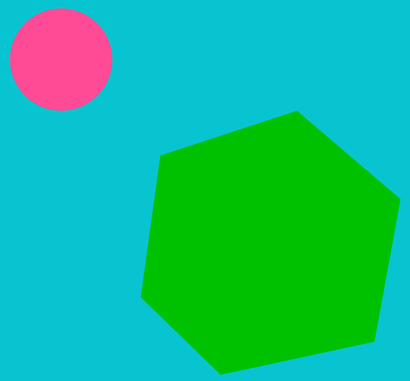
# RESULTS AND ANALYSIS



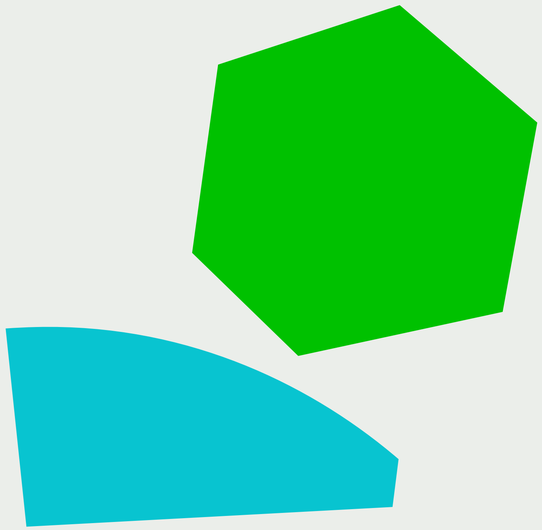
The section outlines the findings of this new analysis and is broken into five parts. Each section outlines a question set by The JUMP; the responding results of the Arup analysis, presented clearly, objectively and without commentary; and then a further reflection on the significance and implication of that analysis, by The JUMP.

Unless stated otherwise, all the following results refer to higher income groups, considering only citizens in North America and Europe.

All savings figures are presented as the percentage contribution to the total emissions cumulative reductions needed by 2030, relative to 2021.

# 3.1 THE IMPACT OF CLIMATE ACTIONS OVER WHICH CITIZENS HAVE PRIMARY INFLUENCE

This section covers the emissions reduction impact of actions that citizens have primary influence over, and so give a quantified idea of what they can achieve. The specific question put to Arup is: ***Of the consumption-based emissions (CBE) reductions needed in high consuming countries by 2030, what proportion of these savings could come from actions that citizens have primary influence over?***



## RESEARCH ANALYSIS - ARUP

Of the climate actions considered in the core analysis, seven have been designated as having individuals as the primary influencer, that is, as having primary influence over delivery of the climate action. Meaning that individuals can implement these unilaterally, without necessarily requiring the need for significant input from local or national governments or industry. The following table outlines these interventions, offers a description and the net reduction potential as a percentage of the total reduction required by European and North American nations by 2030: **(see following page for table.)**

# 3.1 THE IMPACT OF CLIMATE ACTIONS OVER WHICH CITIZENS HAVE PRIMARY INFLUENCE

| Intervention where individuals have primary influence | Targeted change | Reduction potential |
|---|---|---|
| **Vehicles - Reduce ownership** | Avoid personal vehicle ownership | 2% |
| **Food - Dietary change** | Move to plant based diet | 9% |
| **Food - Avoid household waste** | Avoid all household food waste | 3% |
| **Aviation - Reduce number of flights** | Minimise flying to one return short-haul flight every 3 years, one long-haul every 8 years. | 2% |
| **Clothing & Textiles - Reduce number of clothing & textile items** | Aim to keep new items of clothing to 3 items, with max of 8. | 6% |
| **Household appliances optimum lifetime** | Maintain appliances for at least 7 years | 2% |
| **Electronic optimum lifetime** | Maintain electronics for at least 7 years | 1% |
| **Uplift if actions were taken immediately** | If all actions were implemented before 2030 | 2% |
| | Total: | 25% - 27% |

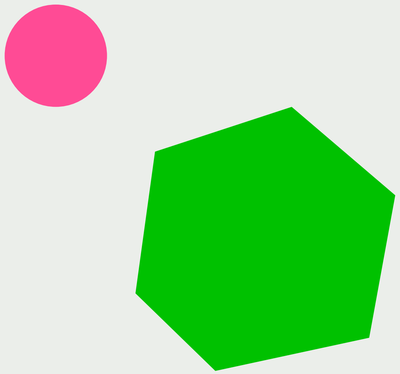
**These are the % contribution each measure makes towards the overall reduction needed across the whole economy of North American and European countries to ensure consumption emissions are within climate safe limits by 2030. The figures show the average impact of widescale adoption of these shifts by 2030, indicating the priority areas for action at that economy-wide level. This is not an outline of the impact of action by a single individual.*

Together these 7 measures contribute to 25-27% of the total reductions needed by 2030. The 27% represents the maximum impact if the measures we implemented at scale within the next few years. 25% is if they are implemented in a steady build-up across the decade.

Food-related actions make up almost half of these changes on average.

It is important to note that these are average numbers for citizens in these countries. For individual citizens these numbers may vary. For instance, high-income individuals who travel regularly by plane will see a much higher saving than 2% from cutting flights back to one every three years.

# 3.1 THE IMPACT OF CLIMATE ACTIONS OVER WHICH CITIZENS HAVE PRIMARY INFLUENCE



## WHAT THIS MEANS

We asked the question 'Are individuals powerless, or can they have a significant impact in the here and now without having to wait for business and government?' The evidence gives a clear overarching answer:

## CONCLUSION:

**Citizens and communities are not powerless. Their action is meaningful, impactful, and actually needed if we are to avoid ecological breakdown.**

Beyond this, we can draw several vital conclusions from the analysis, that can act as a call to action for individuals and communities:

## CONCLUSION:

**If citizens in high consuming countries act now, they have primary influence over 25-27% of the savings needed by 2030 to avoid ecological meltdown – by making clear, constructive, and doable lifestyle changes!**

Locally, in the here and now, citizens and communities have primary influence over the delivery of 25%-27% of the changes needed not just across the entire economy of North American and European countries, but also of the global impact of the goods and services consumed in those countries.

This potential impact is huge, and fully refutes any notion that citizens and communities must sit back and wait for leadership, or that local or individual action is not important. A huge and direct impact can be made right in the here and now, by taking action in our own lives and communities.

This can be achieved by working on reducing vehicle ownership, changing eating habits, reducing flying, reducing the number of new clothes purchased, and keeping electronics and appliances for as long as possible. We also now have a clear numerical target for each of these shifts so there is no longer confusion or debate about how and where to act, which can be a significant barrier to action.

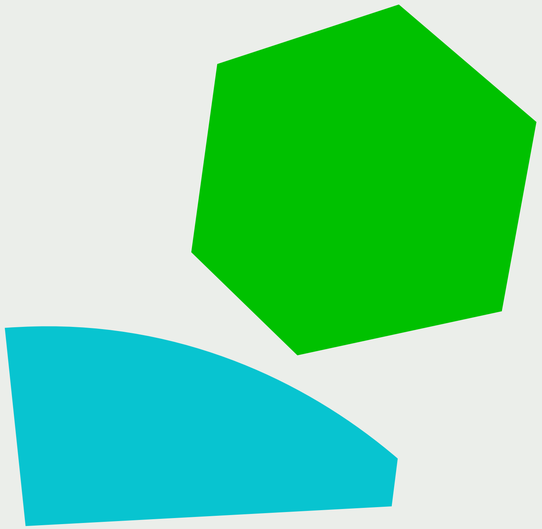
## CONCLUSION:

**In fact, swift and robust action by individuals is not just helpful, but is needed, because without it we are unlikely to stay within carbon budgets.**

The evidence shows that even if government and industry were to show maximum ambition, delivering all the climate actions over which they have primary influence (see following section for a breakout of what makes up these actions), there would still remain up to a 27% emissions reduction gap, unless citizens also took action. This would still lead to carbon budgets being exceeded. In high-consuming countries everyone must make these shifts by 2030. If they do not, it is unlikely government and industry can decarbonise fast enough to make up the difference. Therefore, individuals in fact not only can, but must take the actions.

# 3.2 SHARED INFLUENCE

***Citizens have primary influence over 25%-27% of reductions, but do other actors such as government and business also have a role, even if a smaller one, in delivering these actions?***



## RESEARCH ANALYSIS - ARUP

While citizens have primary influence over these high impact actions, government and industry also have secondary influence in many cases, meaning they can have an important facilitating role in delivering the action. For example, optimising and maximising the lifetime of electronics is more of a challenge for citizens if available electronic products are not designed to be repairable, meaning if any one component breaks, the whole product needs replacing. This shows the crucial role of industry in helping optimise the lifetime of appliances.

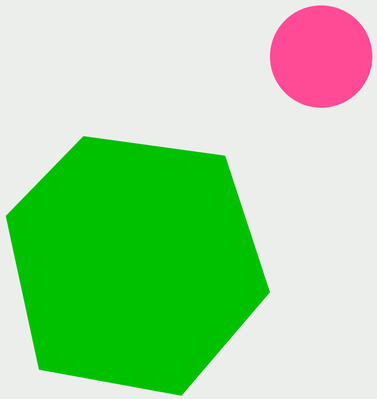
## WHAT THIS MEANS - THE JUMP

## CONCLUSION:

**Government and industry can and must support individual action**

Although citizens can act unilaterally on these actions, there is much governments and industry can and must do to make it easier for them to do so. Government and industry also have a role in facilitating the transitions needed by individuals to deliver the 25%-27% reduction. . For instance, by ensuring there are accessible, affordable low carbon transport options to allow people to avoid private vehicle ownership. Or making decent, accessible, and affordable green food available for all parts of the population.

***What is the time frame over which citizen action can lead to meaningful impact and how does this compare to action from government and industry?***



## RESEARCH ANALYSIS - ARUP

The modelling shows that on average, citizen action has the potential to scale at a faster rate in the mid-2020s than action by government and industry. Analysis implies that for government and industry, with ambitious policy and action, starting today, reductions will build more slowly throughout the 2020s and significantly increase in pace in the 2030s and 2040s. This is because the actions required by government and industry (see the following section for more info) often require significant changes to infrastructural, technological, legislative, and economic systems. As a result, they can take anything from months to decades to implement. For instance, decarbonising building heating measures in colder countries requires changes to all homes as well as national transmission infrastructure and this could take anything from 10-20 years.

## WHAT THIS MEANS - THE JUMP

The next ten years are crucial to ensuring we stay within carbon budgets, because the longer we wait, the faster and more difficult the necessary reductions become. Citizen action however can often lead to much faster direct impact. Given the scale and pace of worldwide reductions needed, and the time it takes for robust and urgent action by governments and industry to deliver deep reductions, it is vital that citizens make these deep shifts by 2030.

## CONCLUSION:

**Individual action is particularly relevant between now and 2030, a decade which is the most important for avoiding ecological meltdown. Now is the time when citizens can really make a difference!**

# 3.4 LOW INCOME GROUPS

***What impact does income, have on the scale of action and impact that is required by 2030?***

## RESEARCH ANALYSIS - ARUP

The above analysis is for citizens and communities that are not in the low-income category. Even though compared to global income levels, the proportion of population in low-income groups is less in Europe and North America than in other regions, due to inequality there remain significant portions of the population that are economically disadvantaged in all countries in these regions.

For lower-income groups, levels of flying are far lower, as is vehicle ownership per household. Therefore, these two actions have not been included as priority areas for low-income groups. Also, it is often the case that in economically disadvantaged areas, there can be less easy access to affordable, fresh green food. This is often referred to as the 'food desert' phenomenon. Due to these barriers, the food actions have not been included as actions that low-income households have primary influence over currently. This is NOT to say that it is not of concern, or that all low-income households cannot take action to reduce their food impact: many will certainly want to and can. However, it is important for industry and government to address these barriers before low-income groups have the ability and freedom to take these actions.

As a result, when considering lower income groups, the responsibility for making shifts is lower than high income groups, dropping from covering 25-27% of emissions to just 9%.

## WHAT THIS MEANS - THE JUMP

## CONCLUSION:

**For the changes led by citizens and communities, it is higher income groups that must take faster and bigger action**

Even within high-consuming countries, consumption emissions are concentrated in higher income groups. Lower income groups tend to exhibit lower levels of high-impact behaviour such as flying and multiple vehicle households. As a result, the responsibility of these groups to make consumption changes is far lower than for those with higher incomes, and the potential impact of making such changes drops from covering 27% of emissions to just 9%.

# 3.5 CLIMATE ACTIONS THAT INDIVIDUALS DO NOT HAVE PRIMARY INFLUENCE OVER

***If citizens can directly deliver up to 27% of the savings needed by 2030, what about the remaining 73%? Even if these are the main responsibility of industry and local and national government, is there any potential for citizens to influence or facilitate these savings? Can they have any indirect influence on ensuring these actions are taken?***

This is a very complex question, and one that is very hard to quantify because any influence would be partial. This is also because any influence would often be indirect, for instance shifting consumer choices leading to wider changes in industry production methods.

However, although it is beyond the scope of this work to quantify this effect, it is certainly possible to make a qualitative assertion about whether there is likely to be some influence, if we can have a clear idea of what those actions are. Therefore, we have posed a second question to Arup:

*What are the types of changes needed, over which citizens do not have direct or primary influence?*

With this information we may be able to qualitatively consider whether there are any meaningful influence citizens could have over these changes.

## RESEARCH ANALYSIS - ARUP

This section provides some high-level description of the actions and changes needed by governments and industry to deliver the remaining 73% of the reduction.

**Consumption focused action where citizens are not the primary influencer**

The analysis behind this research primarily focuses on actions that reduce consumption emissions. In total these account for X% of total emissions reductions. For a more thorough breakdown and explanation of these interventions please refer to The Future of Urban Consumption in a 1.5 Degree World.

- Food - Avoid supply chain waste
- Food packaging - Material efficiency
- Food packaging - Recycled packaging
- Vehicles - Material efficiency
- Vehicles - Optimum lifetime
- Clothing & Textiles - Reduce supply chain waste
- Construction - Low carbon cement
- Construction - Material efficiency
- Construction - Material switching
- Construction - Reuse building components
- Construction - Enhance Building Utilisation

**Example non-consumption focused action where citizens are not the primary influence**

The remaining savings required in rich countries, account for X% of total savings by 2030. These are a mix of actions by national government, local government and industry as primary and secondary influencers. These changes are well documented in a wide range of other research and policy work. The following list is not exhaustive, but gives some examples of the kinds of actions needed:

- Electricity grid decarbonisation
- Heat supply decarbonisation
- Low carbon transport infrastructure
- Transport mode shift
- Existing building energy efficiency retrofit
- Green finance and investment

# 3.5 CLIMATE ACTIONS THAT INDIVIDUALS DO NOT HAVE PRIMARY INFLUENCE OVER

## WHAT THIS MEANS - THE JUMP

National government and business have the primary influence on vital shifts like decarbonising energy systems and supply chains, upgrading building stocks and delivering low carbon travel infrastructure. These are not included as core individual actions, because the overall shift of the energy sector is very much the primary responsibility of government and industry. However, while not the primary influencer for these actions, there are areas where citizen action can still be helpful and even important. It is clear that citizens can, in some cases, have some degree of indirect influence over these changes, for example:

- Electrical grid decarbonisation through consumer demand: swapping energy suppliers to green energy providers will create market demand for a wider shift in energy systems
- Building emissions: influencing building material emissions and improving material efficiency by purchasing new homes that use less concrete and more timber
- Vehicle emissions: improving material efficiency in vehicles by purchasing vehicles that use less metal and plastic in their construction
- Political activity to influence policy: while this report is unable to quantify the scope and scale of this potential impact, it is an observable contributor to change
- Driving wider shifts away from a culture and mindset that prioritises more and more consumption, creating a general landscape of prioritising people and planet.

## CONCLUSION:

**The 27% is actually a minimum figure for the impact of citizens, because citizens can also have indirect influence on portions of the remaining 73%.**

*The biggest impacts must still come from changes that only government and industry can make: while individuals have a huge role, government and industry are still responsible for 73% of the necessary emissions reductions through actions like decarbonising energy, buildings, transport and supply chains.*

## CONCLUSION:

**While they can have a tremendous impact, it is not up to citizens to 'save the world' on their own! Government and industry still have most responsibility.**

Based on these conclusions, and all the analysis above, it is clear all key actor group must implement the changes over which they primary influence, if they do not, meeting our 1.5-degree carbon budgets will be very unlikely. Therefore, there is no time for any group to wait, all need to act immediately to have a hope of avoiding ecological meltdown.

## CONCLUSION:

**There is no one silver bullet, and no one lead actor. We need all action, from all actors, NOW!**

# SO, WHAT NOW?


**These findings are truly transformative, inspiring, and empowering. They show that anyone can and indeed must have an impact. That citizens and communities can go out and start taking action now. We also know exactly what this action must look like, and when it must happen (now!). No more confusion. This report is a clear call to action for all citizens and communities, particularly in high-consuming countries, and particularly amongst higher income groups.**

So this report shows citizens can have an impact.

But how do we do it? Why not take the jump and try six shifts that include the most important changes needed to avoid climate meltdown.

The targets in these shifts are the globally sustainable convergence levels, as calculated in the research.

Anyone can ‘take The JUMP’, either alone or as part of a community, with many communities already doing so, and a growing digital movement building. Try the six shifts to protect our earth and live with joy.

**www.takethejump.org**

# TAKE THE JUMP BY TRYING SIX SHIFTS TO PROTECT OUR EARTH AND LIVE WITH JOY

## TRY THE SHIFTS WE CAN ALL MAKE TO DIRECTLY DELIVER UP TO A 27% SAVING BY 2030

**EAT GREEN:** Combing reducing household food waste to zero and a shift to a mostly plant based diet, would deliver 12% of the total savings needed by North American and European countries.

**DRESS RETRO:** By reducing the number new items of clothing to a target of three, maximum eight, delivering 6% of the total savings needed.

**HOLIDAY LOCAL:** As close as is possible, reduce personal flights to one short-haul flight every three years, and one long-haul every eight years.

**TRAVEL FRESH:** For those who can, reducing vehicle ownership and if possible moving away from personal vehicle ownership, would deliver 2% of the total savings needed by 2030.

**END CLUTTER:** By optimising the lifetime of both electronics and appliances, keeping them for at least seven years, would deliver the 3% of the total savings needed.


## ENCOURAGE CHANGE IN THE SYSTEMS AROUND US TO DELIVER THE REMAINING 73%

**CHANGE THE SYSTEM:** To influence the remaining 73% of emissions citizens could take action that encourages and supports industry and government to make the urgently needed, high impact changes to 'change the system', For instance swapping to a green energy supplier, changing to a green pension, retrofitting our homes, or taking political action. Taking the jump involves trying at least one of these interventions.

If you would like to know more, or would be interested in having an impact yourself, why not ‘take The JUMP’ and sign up to trying these 6 Shifts for 1, 3 or 6 months. We have the community and the tools to help.

No more confusion, ‘take The JUMP’ and we can be sure we are doing what’s needed to protect our earth and live with joy.

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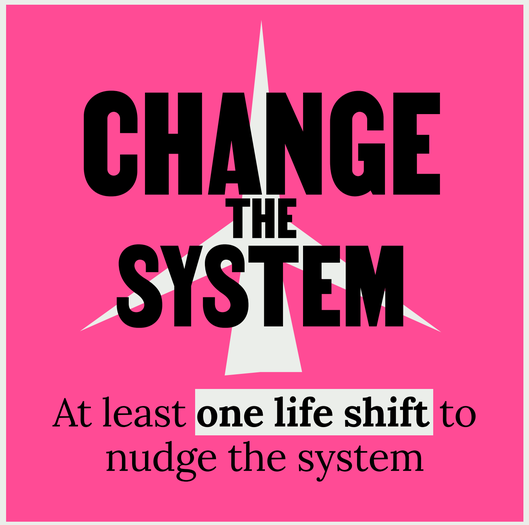






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