

## Written evidence submitted by Dr Roger Morgan OBE on behalf of Pupils 2 Parliament

### Introduction

1. This submission gives the responses to an online consultation survey independently conducted by the Pupils 2 Parliament project with 103 pupils aged 9 to 11 at St George's Primary Academy, Clun, Shropshire, Knighton CiW Primary School, Powys, Presteigne Primary School, Powys, and Staunton-on-Wye Endowed Primary School, Herefordshire. This was specifically carried out to gather children's views and perspectives on issues raised in the Committee's Call for Evidence.
2. We feel justified in submitting children's views on this topic because of their clear investment and stake in the future success of UK resilience to climate change, their commitment to climate and environmental issues, and the perceptive and fresh thinking they have shown in their responses to our online survey.

### An acceptable level of resilience

3. To address the question of acceptable resilience, both to near-term risks and longer term uncertainties or 'tipping points', we asked the children to tell us whether they want the Government to spend most of its climate change money on things that need doing now to help us in the next two years, things that need doing now to help us in five years' time, and things that need doing now to help us in 20 years' time.
4. The children clearly saw both short and very long term expenditure as significantly more important than mid-term expenditure, and slightly favoured expenditure on long term resilience over short term.
5. 41% of the children supported prioritising expenditure on things that need doing now to help us in 20 years' time, 38% on things to help us in the next two years, and 21% on things to help us in five years' time.
6. Some children wanted immediate and sustained measures for all three timescales. Other stressed the importance of measures that, as well as aiming at immediate, mid-term or long term effects, also have a permanent impact: "things that we can do now which will help for the rest of our lives"; "things to make a change from now until infinite".

### Effectiveness of Government policy, legislation and implementation for managing national security risks arising from climate change

7. Children can be perceptive bellwethers for public opinion on the everyday outcomes of policies, legislation and implementation.
8. To capture this, we asked them how well they thought the UK is currently doing in fighting climate change. All 103 children, across four schools, rated how they saw and heard how the UK is doing on this, on a seven point scale, 'from very well indeed' to 'very poorly indeed'.
9. Their median rating was 'in the middle', with 37% of the children giving this rating. 40% rating the UK's performance as doing better than this, and 23% rating it as doing worse. (Of these, 10% rated it 'very well' or 'very well indeed', and 13% gave it a rating of 'very poorly' or 'very poorly indeed').
10. We asked what each of the children thought the UK is currently doing well in the fight against climate change. We made no suggestions, and sought the children's spontaneous answers through an open ended question. What they saw the UK as doing best to fight climate change is increasing the use of

electric cars, then came increasing awareness that we have to stop climate change, followed by planting trees, and increasing cycling and walking instead of car use.

11. Using more solar energy, and burning less fossil fuel, were each listed by two children.
12. Two children, entirely unprompted, gave their views on UK legislation in relation to climate change: “the laws are good on global warming” and “we are making new laws” about it.
13. We then asked what each of the children thought the UK is doing poorly in the fight against climate change, again asking them an open ended question without suggesting any possible answers. They thought the UK is doing most poorly in still having too many fossil fuelled cars; “we’re using a lot of cars and most of them are still fossil fuel cars”. This was followed by continuing air pollution from factories, and still too little awareness and discussion of climate change. One child said the UK is “overdoing the use of fossil fuels”.
14. Government leaving too much to individuals to make changes to counter climate change, and the UK still using too much energy overall, were each listed by two children as things the UK is doing poorly against climate change. As one child put this: “the Government are sort of listening to people who really want the world to change”, but “they are leaving it to the people who it affects most – us”. On over-use of energy, one child wrote that the country is “using LOTS of energy that isn’t solar”. And at the individual household and childhood level, “we should be ashamed of how badly we are doing, we are using too much energy in one household, with too many children staying on TV and electronics”.
15. After this, we asked the children what they thought the UK needs to do differently in countering climate change, again without providing any suggested answers. The most frequent proposal was to increase the use of electric cars, making them cheaper to buy. One child wrote about “the price of electric cars and that’s why my family don’t have one”. Next came further efforts to reduce air pollution, particularly from manufacturing and power generation; “the UK isn’t closing down most fossil fuelled power plants and other fossil fuel based plants”. One pupil proposed the closure of two or three current fossil fuelled power plants and their replacement by solar and hydro electric power generation.
16. These proposals were followed by making exhaust polluting vehicles illegal as soon as possible, increasing wind, solar and water power generation, and increasing planting of both trees and other plants.
17. Put forward by two children each were the suggestion of limiting the number of polluting factories each company is allowed to operate, and measures to increase awareness of climate change and actions to counter its effects. One child simply wrote “try a bit harder”.
18. Some proposed reduction in consumption by increased sharing of facilities. One proposed increased house sharing to reduce overall building. Another proposed greater use of lease car schemes.
19. Some children proposed the expenditure of more money on protection against the effects of climate change – for example, to “save houses and buildings and give them a bit more protection”; “for the fires they could take down the bushes that set on fire easily. I think to help against the water they could build walls”.
20. The overall verdict of the children was summarised by these two children: “the UK are fighting it well, or not bad”; “the UK is doing OK, but not the best it could”.

21. Finally, on the impact of current policy, legislation and implementation, we asked children to tell us of any effects of climate change that they had personally seen (again without making any suggestions to them).
22. The most frequent effect the children reported was seeing the melting of polar ice, and its effects, on the media. Some elaborated on this by describing what they had learned about the effect on animals such as polar bears.
23. The climate change effect most often seen first-hand by children was flooding: “there was a big flood when I was in the car (not actually in the car)”; “when I was on holiday a few years ago, in the village we stayed at the first few houses were fully submerged”; “the flooding during winter was really bad, which I think is a result of Climate Change”; “I have lots of flooding close to school, and I think each year it is getting warmer”. Linked to this, children also reported seeing unseasonal amounts of rainfall.
24. One child reported; “I was in a plane in Australia and I saw a huge bushfire next to the airport”.
25. Another reported experiencing UK summers getting warmer each year.

#### **Allocation of roles and responsibilities at the national and local level**

26. On this issue, we asked the children which, out of the Government, local Councils, schools, workplaces and individuals, they thought can make a great difference to dealing with climate change. They could identify as many of these as they thought appropriate.
27. The children saw the actions of individual people as the level most able to make a difference. 72% of the children identified individual action as a greatly effective level.
28. This was closely followed by 68% of the children identifying the Government as able to make a great difference.
29. Local Councils were identified by 56% of children as a level able to make a great difference.
30. This was followed by workplaces – schools were identified as able to make a great difference by 52% of children, and adult workplaces by 36%.
31. We further asked the children an open-ended question about what they saw as the obstacles to action against climate change, at any level. In short, ‘what stops people’ from taking action they could take?
32. The children saw the main obstacle as one preventing sufficient switching to electric cars. The obstacle is a combination of the high price of electric cars, coupled with already being happy with an existing petrol or diesel car.
33. Their second most listed obstacle was simply people not caring enough about climate change to take action against it. Part of this came about from people not yet having experienced serious effects from climate change in the UK. People could still think there is no point taking action. One pupil was keen to stress that fighting climate change is often seen as something that motivates children and young people – but older people and elderly people need to be motivated too.
34. The third most listed obstacle was again to do with car use - laziness in driving for short distances that do not require travel by car.

35. Three further obstacles were each identified by two children. One was the cost of many actions against climate change, and another, linked, obstacle was feeling the need for more Government help to take action.
36. The final obstacle to effective action against climate change to be identified by two children was stated in one word: “wars”.
37. Some children had strong opinions about why some people do not take action against climate change: “can’t be bothered”; “a lot of people are not trying, so people there is no point in fighting”; not caring – for example “having the heat full blast when it’s really hot, then opening all the windows”; and the everyday pressures of life – “doing up houses, looking after kids, and helping family”.

### **The forthcoming National Resilience Strategy**

38. We asked children to rate the 13 elements identified in the Call for Evidence as comprising the Critical National Infrastructure (CNI), according to whether they would prioritise that element for Government expenditure on protection from climate change, and on repair in case of climate change damage.
39. Those infrastructure elements are listed here in the overall priority order given by the children, with the top priority first. The figures in brackets are the percentages of children identifying that element as a priority for Government expenditure:

Identified as a priority by over half the children;

- Clean water supply (81%)
- Food supplies (76%)
- Defence (The Army, Navy and Air Force) (74%)
- Health (71%)
- Emergency Services (69%)
- Energy (54%)

Identified as a priority by fewer than half the children;

- Communications (49%)
- Transport (46%)
- Government (41%)
- Chemicals (40%)
- Finance (39%)
- Civil nuclear (34%)
- Space (31%).

40. High ratings for water, food, health, emergency services and energy are perhaps not surprising, but it is significant for the Committee to know how highly children rate defence as a priority for protection in the current world situation.
41. This finding appears to be a robust one, as defence came in the top three priorities in all four schools independently surveyed.
42. We also invited children, without making any suggestions, to propose actions they thought the Government should include in its strategy. We received the following proposals:

- Reduce the number of factories emitting climate change gases
- Increase hydro-electric power generation dams
- Put up protective sea barriers by the coast
- Increase public awareness of climate change and its effects
- Shift from fossil fuelled to renewable electricity generating plants (but not to nuclear generation)
- Do more research into melting of the ice caps
- Stop use of fossil fuelled cars.

43. One child wrote the following proposal for the Strategy:

**“try to get more people to support the fight against climate change, and do as much as they can in their power. But still keep everyone safe. When you make a move against climate change, make sure no-one will be affected in a bad way by it”.**

### **Technological solutions for anticipating and managing the implications of climate change**

44. To find out what technological solutions the children would like to see to fight, or mitigate the effects of, climate change, we asked them what invention they would want to make to help to fight climate change, if they were to be a scientist. Again, we asked this as an open question without suggesting any possible answers.
45. The most frequent technological solution proposed was a means of extracting pollution (or smoke) from the air.
46. Second came an immediate means of reducing pollution from fossil fuelled cars and vans – either by a new form of pollution limiter or exhaust treatment, or by developing non-polluting alternative fuels.
47. This was followed by invention of automated equipment to increase the rate of tree planting, and the development non-polluting machinery and motors of all types.
48. There were numerous individually proposed technologies: better ways to help people understand how to fight climate change, new electric engines – particularly ones that do not create great pollution in their manufacture and that of their batteries, a washing machine that uses cold water, a means of reincorporating broken off ice floes into the polar ice caps, battery powered boats, a ‘giant’ hydro-electric dam, new equipment to detect where climate change is worst, structures to break waves that are threatening the coast, chemicals to counter climate change gases (an anti-climate change pollution ‘serum’ or ‘ingredient’), a computer indicating rapid measures to fight climate change, water wheels to generate electricity for a city, phones that aren’t bad for the environment, new non-polluting ways to travel, new types of zero polluting cars, and a way to stop the melting of polar ice.

### **A concern - Climate Change and Plastic Pollution**

49. This survey and submission have been about climate change and the protection of our national infrastructure against it. But during the survey it became clear that many children do not differentiate between climate change and plastic pollution.
50. 89 of the children had put forward their proposed new technology inventions to combat climate change and its effects. 25% of those 89 children listed technology to deal with plastic pollution among their ‘inventions to fight climate change’. Of the whole group of 103 children, 20% listed dealing with plastic pollution as something they thought the UK is doing well to counter climate change, and 12%

listed dealing with plastic pollution as something they thought the UK is doing poorly in countering climate change.

51. This may be because of widespread media coverage of plastic pollution and other forms of littering, and their effects on animal and particularly marine life, or because plastic pollution and measures to reduce it are more immediately visible, understandable, and more easily implemented in our daily lives.
52. However, although this was not something we expected or sought to find, this is as much a finding of this survey of children as the other findings above. It underlines the need (as some children have proposed) for future Government strategy to work to increase awareness of global warming, its causes and its countermeasures at all levels, to differentiate it from plastic pollution, and to avoid any assumption taking root that reducing or recycling plastic is sufficient action to counter global warming.

### **Last words**

53. We often hear adults saying they are concerned about climate change because of its likely effects on the lives of their children and grandchildren and future generations. This is not the exclusive preserve of adults – primary school children, aged 9 to 11, are also concerned for future generations and for their future children and grandchildren:

**“we need to be prepared for twenty years’ time, otherwise there will be no ‘new generation’”**

**“I put 20 years because there are loads more generations to come, and they all need a world too”.**

I am grateful to the Heads and staff of the four primary schools for enabling their pupils to feed their views in to this submission, and above all to the pupils themselves for their thoughts and views.

*Roger Morgan*

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