

EDUCATION & SKILLS COMMITTEE INQUIRY ON SUSTAINABLE SCHOOLS

Submission from the Sustainable Development Commission

15 June 2006

We welcome the Education & Skills Committee's decision to look at sustainable schools as we consider the Building Schools for the Future (BSF) refurbishment and new build programme to have the potential to help generations of young people learn new, sustainable patterns of behaviour.

This submission looks at sustainable development, sustainable schools, and school buildings, concluding with recommendations. We have also answered the Committee's relevant questions specifically in the final section.

The Sustainable Development Commission (SDC) is the Government's independent adviser on sustainable development. The SDC is a non-departmental public body. The SDC advises Government across a range of policy areas including education and young people, buildings, climate change and health.

1.0 What is sustainable development and how is it relevant to schools?

The twin goals of sustainable development, defined in the UK Sustainable Development Strategy, are *living within environmental limits* and *ensuring a strong, healthy and just society*. The UK Government has said it will achieve these goals through a *sustainable economy, good governance and using sound science responsibly* (HM Government 2005).

The four priority areas for action identified in *Securing the Future* are:

- *Sustainable consumption and production* - working towards achieving more with less and assessing costs and benefits across the whole life-cycle.
- *Natural resource protection and environmental enhancement* - protecting the natural resources on which we depend.
- *Sustainable communities* - creating places where people want to live and work, now and in the future.
- *Climate change and energy* - confronting the greatest threat to our environment and society.

In addition to these four priorities, *leading by example* and *changing behaviour* are integral to delivering on Government's vision for sustainable development. The Building Schools for the Future programme is the major opportunity for the Government put sustainable development into action on the schools estate. To do this the public sector should put sustainable principles at the centre of its capital

investment to create school buildings, grounds and facilities that support sustainable behaviours among pupils, parents and the local communities.

Formal education has a crucial role to play in promoting sustainable development, both in raising awareness and developing skills. Promoting sustainable development in schools means integrating high standards of achievement and behaviour with the goals of healthy living, environmental awareness, community involvement and citizenship - many of the same aspirations of Every Child Matters.

By linking learning to issues of direct concern to young people – their personal quality of life, and the wellbeing of the communities and environment around them – their school experience becomes more relevant and compelling. For example, issues like climate change, global justice and local quality of life may be turned into engaging learning opportunities for pupils, relevant to key learning outcomes as well as a vehicle for teaching many core curriculum subjects - and a focus for action among the whole school community.

Working towards sustainable development goals in a well designed, comfortable and inspiring building can also improve staff morale and retention, and recruitment of new staff, as well as providing a focus for cooperation with the parents and the local community.

The Prime Minister called for this in September 2004 when he said:

“Sustainable development will not just be a subject in the classroom: it will be in its bricks and mortar and the way the school uses and even generates its own power. Our students won’t just be told about sustainable development, they will see and work within it: a living, learning place in which to explore what a sustainable lifestyle means.”

The Government’s 2005 Sustainable Development Strategy builds on this:

“Sustainable development principles must lie at the core of the education system, such that schools, colleges and universities become showcases of sustainable development among the communities they serve.” (HM Government 2005)

The DfES Sustainable Schools strategy – currently out for consultation until end August 2006 – proposes a framework for sustainable development in schools through eight ‘doorways’ (sustainability themes) as follows: (DfES 2006)

- Food and drink
- Energy and water
- Travel and traffic
- Purchasing and waste
- Buildings and grounds
- Inclusion and participation
- Local well-being
- Global dimension

2.0 Why sustainable school buildings?

We need to make a radical impact on children's understanding and experience of sustainable development if they are to develop the life skills needed to build a sustainable society. In a nation of 60 million people and great diversity this challenge is central to social goals. Capital investment in England's schools presents a key opportunity as the vast majority of the population will pass through the 3,500 secondary schools during their lives. This natural 'bottleneck' provides a unique opportunity for learning about sustainable development.

The UK Sustainable Development Strategy states that '*the Building Schools for the Future programme will ensure that all new schools and academies will be models for sustainable development.*' And further that it '*provides a valuable opportunity for increasing the efficiency of the school building stock*' (HM Government 2005)

Moreover, it is an explicit requirement of the Government's new Sustainable Procurement National Action Plan that:

"Treasury and DfES must work with Building Schools for the Future programme to ensure that it is meeting high sustainability standards and to learn lessons for other capital projects." (Defra 2006)

However, while a vision for sustainable schools has recently been published by the DfES, its implications in terms of the design of school buildings has not been sufficiently thought through. The Government is not yet aware whether its capital investment programmes will result in the schools estate producing higher or lower carbon emissions, nor what the impact will be on water demand, waste production, traffic or other environmental factors. The communications of the delivery body, Partnerships for Schools, make scant reference to sustainable development. This is extremely worrying.

2.1 The scale of the opportunity

The Government is undertaking a series of major capital investment programmes in school buildings which will radically alter children's learning environments. Huge sums of money are committed to these programmes, with very tight timescales. BSF is funded to the tune of 0.5% of GDP. The next major opportunity presented through comprehensive renewal of school building stock is likely to be up to 60 years away.

This capital investment programme offers the opportunity to change not only the fabric of school buildings, but the whole school experience for generations of children. BSF is a programme of national significance in terms of financial expenditure and resource use in construction, creating an opportunity to transform the construction industry and product markets. This has relevance across many policy agendas for public procurement not just education. The economies of scale will allow huge cost savings to be made, supported by standardisation.

BSF offers the government the high profile opportunity to lead by example in cutting carbon emissions and resource use. But these opportunities will only be realised if those running BSF think at the scale of the programme, seeing their decisions in the context of a big shared vision.

2.2 Design for learning

A strong theme within the DfES Sustainable Schools strategy is that school buildings, grounds and the local surroundings offer a resource for learning about real issues in real places among real people as a natural part of their education. The school then becomes a testing ground where pupils think through the problems and opportunities right on their doorstep, while studying the connections to larger, sometimes global challenges. In other words places where sustainable living is normal behaviour, rather than the exception.

School buildings should ensure that sustainable design features are revealed, interpreted and amenable to 'hands on' monitoring and use by pupils. We see BSF as a major opportunity to integrate 'design for learning' features into all new and refurbished building designs.

Future learning needs should also be considered fully within school designs such that school buildings become environments in which enable young people and their communities can engage with sustainable development in theory and practice. It is not clear that BSF will deliver schools that are ready for this challenge into the future.

2.3 Energy efficiency and carbon emissions

The UK's climate change goal is to reduce carbon emissions by 60% by 2050. In the face of rising consumption, this is a major challenge and will require significant effort from all sectors. Even then achieving this target is unlikely to be sufficient: there is already increasing evidence that by 2050 reductions in the order of 80-90% will be required by 2050 or sooner. The Government is committed to leading by example and a clear commitment in a major public building programme will send a powerful message to the private sector that Government is committed to early action on meeting this goal. It is unlikely that there will be another overhaul of the school estate before 2050 on a comparable scale to the current investment, and there is no guarantee that it will ever be repeated.

A recent scoping study commissioned by the DfES with the SDC investigated the total carbon footprint of the schools estate – including emissions from energy use in school buildings, commuting to school and procurement activities. The scoping study shows that while the schools estate contributes 2% to national carbon emissions, it represents almost **15% of UK public sector emissions**. Half of the

emissions that schools produce derive from energy use within school buildings. (SDC 2006).

The SDC is exploring next steps for this study and how targeted emissions reductions could be achieved, giving wider benefits. For example reducing emissions from commuting to school by encouraging cycling and walking brings health benefits.

Schools spend a significant amount of money on heating and powering buildings. Primary schools each spend on average £6,300/year on energy, and secondary schools each spend £39,000-£55,000/year on energy (BRE 2006a), the latter is comparable to the cost of a teacher. Volatile energy and water prices mean schools could be at risk of unaffordable bills if they are not safeguarded through well designed efficient school buildings. Further, the extended schools programme will increase energy costs for buildings by up to 50% due to increased opening hours of school buildings.

We expect that the energy efficiency standards will rise as BSF progresses and therefore first waves could be disadvantaged through lower standards and higher running costs. Whilst we welcome the fact that earlier waves are focusing on deprived schools which will address inequality issues, these schools may also become saddled with higher lifetime energy bills. It may therefore be necessary to provide additional funding for sustainable design in earlier waves.

2.4 Wider environmental opportunities

Sustainable design and management saves money through energy, water, waste and purchasing efficiency, cushioning school budgets from the effects of rising utility bills. This is likely to be an increasingly important consideration over the lifespan of the new and refurbished school building stock. Doing 'more with less' – and doing it at the earliest opportunity – produces a classic 'win-win' for the environment and the school budget. A primary school in Hadleigh in Suffolk has no heating bill due to high building efficiency, solar water heating and, naturally, human body heat. This school can move into the future without the burden of an escalating heating bill.

Environmental design, construction and operation of school buildings can contribute to pupil health and living healthy lifestyles in a number of ways. School buildings should enable young people to maximise health benefits in the way they travel to school, the indoor environment, eating and play.

2.5 Participation in design

As schools increasingly become a community resource, communities should have greater involvement in their creation. Pupils, parents, teaching staff, non-teaching staff, heads and governors should all be engaged in the development of the brief

and design process. For secondary schools, parents of pupils in the feeder schools also have a legitimate interest. Participation in design must be very carefully handled in order to ensure it can be meaningful and provide satisfactory outcomes for all parties. The current short design and consultation period in BSF is therefore not adequate.

As noted by the DfES Sustainable Schools strategy, *'Schools that involve pupils in the design of playing areas experience reduced incidents of bad behaviour, including bullying and vandalism. Pupils begin to feel, "This is my school and I want to look after it."'*

3.0 Our Assessment of BREEAM

The DfES's response to the environmental agenda has been to make it a condition of capital funding that new build and refurbishment projects achieve at least a "very good" rating under the BRE's environmental assessment method for schools 'BREEAM Schools' (BRE 2006b).

The Government's commitment to the use of BREEAM Schools on all capital investment in schools is encouraging, and will ensure that school buildings are delivered to an environmental performance level beyond the statutory minimum of the Building Regulations and DfES Building Bulletins. BREEAM Schools is relatively new and will require some time to become settled in the construction industry, and it will be some time before its impact can be fully evaluated. We are very keen for this evaluation to be conducted independently of Government and for the lessons learned to be disseminated widely.

The major drawback of BREEAM Schools is that it does not encapsulate a vision for sustainable school buildings and is therefore unable to inspire, and is not designed to assist with the basic design decisions necessary to make the most of the current capital investment opportunities. The current urgency on the climate change situation and lack of progress towards sustainable development demands a very much stronger response than BREEAM and the question of whether to seek BREEAM "very good" or "excellent" is something of a red herring as neither would on its own create a generation of sustainable school buildings. If BREEAM is the limit of the aspiration, BSF and other capital programmes will fail to support schools sufficiently in meeting these goals.

Below, we place the Government's own goals for sustainable schools against the BREEAM standard and assess whether the latter is sufficient to achieve the goal.

Potential targets for a vision for the school estate are also suggested – the aim is to start a discussion and suggest the level of aspiration we would expect. These are prompts for targets and goals that we consider should be developed by DfES, in partnership with stakeholders such as Defra, SDC, Cabe, industry, and NGOs. Some targets are based on the targets for the government estate, which we consider could be adopted for schools.

i. Food and drink

Government goal

An unhealthy diet contributes to obesity and poor pupil concentration. Healthy, ethically sourced food can reverse these effects while protecting the environment and supporting local producers and suppliers.

By 2020 we would like all schools to be models of healthy, local and sustainable food and drink produced or prepared on site (where possible), with strong commitments to the environment, social responsibility and animal welfare, and with increased opportunity to involve local suppliers.

BREEAM does not currently contribute to the 'food and drink' goal.

Potential school building vision:

- Space for growing food on all feasible school sites.
- Space and facilities for composting food, green waste and biodegradable materials and all school sites.
- Space for community farmers market on all feasible school grounds.
- All schools to have suitable facilities for preparation of fresh food

ii. Energy and water

Government goal

Rising demand for energy and water is storing up problems for future generations. Energy and water conservation can tackle this problem while saving schools money.

By 2020 we would like all schools to be models of energy efficiency and renewable energy, showcasing wind, solar and bio-fuel sources in their communities, and maximising their use of rainwater and wastewater resources.

BREEAM creates a framework to encourage designers to implement low energy and low water design features. CO₂ emissions should be minimised, and energy management is recognised. Low water use fittings, rainwater/greywater recycling and water management technologies are encouraged. **BREEAM** does not define a carbon emissions goal for school buildings. However the energy standards for refurbished schools are the same as for new schools, which sets a challenging requirement.

Potential school building vision:

- Construction phase of all new buildings/refurbishments carbon neutral.
- All school buildings carbon neutral in operation by 2020.
- All schools carbon emissions (direct and indirect) reduced by 30% over 1990 levels by 2020.

- All schools showcase renewable energy (with technologies safely accessible where possible) for use as a learning resource and community focus.
- All schools optimise rainwater harvesting and greywater recycling, with a target to reduce mains water consumption by 25% on 2004 levels by 2020. Consider setting a water consumption target of m³ per person/year
- All schools to have interactive displays about heat, power, water usage and weather conditions.

All above goals should be achieved despite the increase in demand anticipated through extended schools.

iii. Travel and traffic

Government goal

Rising vehicle use adds to congestion, road accidents and pollution. Car-sharing and public transportation help ease these concerns, while walking and cycling also boost fitness and well-being.

By 2020 we would like all schools to be models of sustainable travel where vehicles are used only when absolutely necessary and facilities for healthier, less polluting or less dangerous modes of transport are exemplary.

BREEAM rewards designs for site selection for good public transport facilities, good cyclist facilities, and safe and secure pedestrian and cycle access routes. BREEAM does not have high aspirations for delivering cycle/pedestrian travel – a maximum of cycle spaces for 10% of pupils is required.

Potential school building vision:

- All schools to have cycling facilities for 100% of pupils that have the option to cycle to school.
- All schools to be located on designated cycle routes, or appropriate cycle routes to be established if they do not exist. Infrastructure requirements for the creation of safe walking and cycling routes and public transport within the school catchment to be an integral part of the planning application and construction costs for new schools and major refurbishments
- All schools to have well defined safe walking routes within at least a 1.5 km radius of the school. Infrastructure requirements to deter the school run (e.g. to encourage parking away from the school and provision for safe walking the last 1.5km) to be an integral part of the planning application and construction costs for new schools and major refurbishments

iv. Purchasing and waste

Government goal

Waste, and the throw-away culture that encourages it, can be addressed through sustainable consumption. Schools can reduce costs and support markets for ethical goods and services at the same time.

By 2020 we would like all schools to be models of resource efficiency, using low impact goods that minimise (or eliminate) disposable packaging from local suppliers with high environmental and ethical standards, and recycling, repairing and reusing as much as possible.

BREEAM encourages use of construction materials with a low life cycle environmental impact and reuse/recycling of construction materials as well as encouraging provision of facilities for recycling of consumables in use.

Potential school building vision:

- Diversion of 80% of construction waste from landfill
- All schools to reduce their waste arisings by 25% by 2020, relative to 2004/2005 levels
- All schools to recycle 75% of their waste arisings by 2020, with goal of zero waste to landfill by 2050.
- All schools to include combined school and community recycling facilities.
- All schools to have live interactive displays about recycling progress, material flows for use in learning
- All schools to have repair workshops to recondition equipment or prepare for reuse or charitable giving.

v. Building and grounds

Government goal

Good design of school buildings and grounds can translate into improved staff morale, pupil behaviour and achievement, as well as opportunities for food growing and nature conservation.

By 2020 we would like all schools to be regarded as living, learning places where pupils see what a sustainable lifestyle means through their involvement in the improvement of school buildings, grounds and the natural environment.

BREEAM recognises good design practice in:

- engaging the community: to involve the local community and building users, flexibility in the design to enable the building to be used as a

shared facility with the local community and reducing the opportunity for crime.

- design for good management: enabling building users to understand and operate the building efficiently, buildings that can be easily maintained during lifecycle.
- learning dimension: the building and school site to be a learning resource.

However these elements are not prioritised within the BREEAM tool. This means they are not weighted heavily in the scoring in comparison to energy.

BREEAM also recognises good practice in designing for comfortable and healthy internal environments considering daylighting and visual environment design, ventilation and indoor air quality, healthy materials and thermal comfort.

BREEAM also encourages design practice to promote ecology through use of brownfield land and land that already has limited value to wildlife. It recognises improvements to ecology, including pupils and staff in the design of the school grounds and developing partnerships with local wildlife groups.

Potential school building vision:

- All schools increase the ecological value of their estate by 50% over 2004 levels by 2020
- All sustainable design features to be revealed and interpreted as learning resources.
- All schools to engage stakeholders in design of buildings and grounds.

vi. Inclusion and participation

Government goal

Schools can promote a sense of community by providing an inclusive, welcoming atmosphere that values everyone's participation and contribution, and challenges prejudice and injustice in all its forms.

By 2020 we would like all schools to be models of social inclusion, enabling all pupils to participate fully in school life while instilling a long-lasting respect for human rights, freedoms and creative expression.

BREEAM does not promote design of accessible environments for visually or mobility impaired users.

BREEAM recognises involvement of the local community and building users in the design process in order to increase local "ownership".

Potential school building vision:

- Accessible, flexible, adaptable design of building and grounds for all.
- Quality space for display of school work and ethos to community.
- Facilities to allow monitoring of performance of the school environment to promote learning about the building
- Meaningful consultation in school design involving pupils, staff and local community (including feeder schools):
- Quiet areas for thought and prayer.

vii. Local well-being

Government goal

With their central locations and extensive facilities, schools can act as hubs of learning and change in their local communities, contributing to the environment and quality of life while strengthening key relationships.

By 2020 we would like all schools to be models of good corporate citizenship within their local areas, enriching their educational mission with active support for the well-being of the local community and environment.

BREEAM recognises involvement of the local community and building users in the design process in order to increase local “ownership” and accommodate a range of travel options for building users.

Potential school building vision:

- All schools to include facilities and flexibility to act as extended schools, including child care, adult learning and other community use.
- All schools to showcase sustainable design features and technologies to the local community, such as renewable energy systems and water/energy efficiency devices.

viii. Global dimension

Government goal

Growing interdependence between countries changes the way we view the world, including our own culture. Schools can respond by developing a responsible, international outlook among young people, based upon an appreciation of the impact of their personal values, choices and behaviours on global challenges.

By 2020 we would like all schools to be models of good global citizenship, enriching their educational mission with active support for the well-being of the global environment and community.

BREEAM recognises the specification of responsibly sourced materials in construction.

Potential school building vision:

- All timber used in building projects to be obtained from certified sustainable sources.
- All materials used to have country of origin recorded

This brief analysis suggests that BREEAM Schools does encourage incremental improvement in environmental design of school buildings, but by itself offers no guarantee that projects will deliver the standard of buildings needed to support sustainable schools. In particular BREEAM Schools does not offer a vision of sustainable school buildings that those commissioning, designing and constructing can work towards.

3.1 How BREEAM Schools could be strengthened

BREEAM Schools has an important role in delivering improved environmental standards in buildings. We feel that some elements of the BREEAM process could be improved to deliver a short-term advantage.

It is important to maintain a level of flexibility in setting standards for sustainable design, in order to maintain value for money, and allow designers optimise designs for their locality. Standards should remain performance based rather than prescriptive in approach. We do consider that a **radical review of the standards** in BREEAM Schools and the Building Bulletins will be necessary to deliver the sustainable schools vision. The vision of what BSF is aiming to achieve in terms of sustainable development should be included in BSF documentation and made clear to clients, designers and contractors. Cabe Client Design Advisers should help with dissemination of the vision.

The tradability on key resource efficiency areas such as energy and water consumption should be reduced to **set minimum standards for key resource efficiency criteria**. This would mean that all schools achieving BREEAM “Very Good”, for example, would have to achieve a defined energy efficiency/carbon reduction standard above the regulatory minimum. The development of the Code for Sustainable Homes is an example where this weakness is being tackled.

We are aware that other versions of BREEAM require a **Post Construction Review** to ensure that elements designed into the building are delivered during construction. Without this, changes and ‘value engineering’ during construction may mean that the completed building does not actually achieve its BREEAM standard. This should become included in BREEAM Schools.

4.0 Further BSF challenges and solutions

Our focus up to this point has been on BREEAM Schools, but there are a number of other issues that we consider need attention.

We are aware that many players within the construction industry would be able and willing to deliver higher standards if required. The SDC and industry partners are keen to co-operate in helping to define a vision for sustainable school buildings, and how this may be achieved in practice. Industry initiatives such as the Schools Design Forum being developed by the BRE Trust (in association with the SDC), and the British Council for Schools and Education (to be launched on 19 June 06), are two vehicles that may be used to find solutions with industry.

4.1 Operation of sustainable school buildings

There is currently no standard for the resource efficiency of schools in use. The operational energy use of buildings is notoriously complex to predict as it is determined by a range of building management factors. Monitoring of a number of 'sustainable' schools revealed that their energy consumption was significantly higher than predicted.

A payment mechanism is included in BSF contracts which attempts to encourage energy efficient management and operation of school buildings in use. This transfers the demand risk of energy consumption onto the private sector operator without exposing them to the risk of price volatility. However it does not appear that the payment mechanism incentivises continuous improvement in energy efficiency or installation of low carbon technologies. **Better incentivisation arrangements will need to be developed** to ensure schools are maintained and operated to minimise emissions. It may be worth considering the payment mechanism developed by the Department of Health for health buildings, which includes incentives for continuous reduction in energy consumption.

Post occupancy evaluation of schools would enable assessment of both the performance of the building as built but also an assessment of the ongoing operation of the school. Many aspects of the building-related vision outlined above will require ongoing care in operation and maintenance of buildings to deliver enhanced sustainable performance.

4.2 Whole life costing

There continues to be a split between the management of capital and running cost budgets, which works against the use of whole life costing in design. Capital budgets for schools are fixed by DfES on a formula basis and there is no flexibility within that formula to ensure that whole life costs may be minimised through increased capital investment. **The DfES should consider accommodating whole life costing in the capital budget formula.**

SDC's research suggests that increased capital funding with paybacks within 30 years would deliver additional savings of 20,000 tonnes of carbon per year for the secondary schools and up to 10,000 tonnes of carbon per year for primary schools (BRE 2006).

The study showed that the 15% of schools that will undergo 'minor refurbishment' in BSF could benefit from £5m investment in energy efficiency that will payback in less than 5 years, saving £5,000 annually for each school.

Installing micro wind turbines and biomass boilers in 10% of schools undergoing major refurbishment or being rebuilt would require an investment of £45m, and save 15,000 tonnes of carbon per year, paying back within 30 years.

Further, 'invest to save' resources are limited at the local level. The recently announced £20m revolving loan fund for energy efficiency to be administered by local authorities should be made available to schools. This would enable schools to make investments in resource efficiency which would reduce utilities bills, allowing the school to pay back the initial investment over several years and benefit from savings into the future.

The vision proposed in this submission may require increased capital investment but will deliver greater direct and indirect savings across the public sector.

4.3 Evaluation and continuous improvement

The procurement of schools through BSF will run for 15 years, which allows time for lessons learnt to be fed back into the procurement process. There is a need for a process that **identifies, validates and promotes learning** (of pros and cons) of all new and refurbished schools, including independent reviewing and reporting. As schools are procured in waves, with delivery consortia getting exclusive contracts to design, construct (and potentially operate) a series of schools, a requirement for evaluation and feedback into future projects is also essential.

The Key Performance Indicators for BSF include three environmental indicators (number of schools achieving BREEAM very good, construction waste, energy efficiency). A greater range of indicators is needed to track whether the BSF programme is delivering sustainable school buildings to achieve the sustainable schools vision, and establishing whether buildings are being managed in a sustainable way.

5.0 Conclusions

Although the DfES capital investment programmes are very ambitious in terms of scale, we consider them to be unambitious and unfocused in terms of sustainable development. Without a clear vision and absolute goals defining what is meant by 'sustainable school buildings', the pressures to deliver new schools on budget and on time will mean that sustainable design will remain a low priority. We consider that there is a very real risk that programmes like BSF will be very rushed and risk delivering poor design and poor levels of sustainability. **It would be highly regrettable from the perspective of educational standards, children's well being, cost-efficiency and, ultimately, the quality of life of local communities across the country, if this rare opportunity was lost.** Anything less could deliver schools that might be barely acceptable today but not fit for the future.

The scale of this public investment requires standards of sustainability to be raised significantly, whilst also achieving value for money for the public purse. The public sector is committed to lead by example to deliver sustainable development, as the recent Sustainable Procurement Task Force report (Defra 2006) so clearly states. It is our view that the Government is in a position to raise sustainability performance significantly whilst maintaining value for money.

Identifying and specifying how school buildings can help meet the 2020 vision encapsulated within the DfES's own Sustainable Schools strategy is vital if we are to bring the capital investment programmes on track in terms of delivering world class schools of lasting value to our communities. We ask the DfES to seize the opportunity, be bold and think big in approaching the huge task.

We feel the mood is right for determined action in this area. Our view is that it is better to get the delivery mechanisms and performance standards right than rush through another wave of ill-designed schools, which will be our legacy for several decades. **Perhaps one of the reasons we are having to build so many new schools now is because the last waves of buildings were not inspiring, not built or maintained to last, not built with sustainability in mind.**

6.0 Recommendations

The DfES should recognise sustainable development as the overarching principle for BSF and not one in a long list of competing agendas.

The DfES and Partnerships for Schools should work with the SDC, Defra, Cabe, NGOs and industry groups (such as SDF) to formulate a bold, but practical, vision of sustainable school buildings and a sustainable schools estate. This vision should be consistent with the goals of the DfES Sustainable Schools strategy and the UK Sustainable Development Strategy.

Taking into account leading practice, the DfES should commission research into (a) the true costs and benefits of high quality sustainable design based on the vision outlined above, and not restricting their thinking to 'very good' or 'excellent' on the BREEAM Schools scale; and (b) methods of linking sustainable design to pupil learning.

A delivery road map should be developed for and with building clients, designers and contractors, incorporating revisions to BSF contractual documents and tools such as BREEAM Schools. The latter should be radically adjusted to become a key tool to delivering the vision.

A process of evaluation and reporting should be developed to ensure delivery of the vision, including regular independent reviews, post occupancy evaluation, increased range of Key Performance Indicators and feedback of lessons learnt into the procurement process.

Capital budgets for BSF should be reviewed to incorporate allowance for whole life costing. Better incentives should be developed to encourage resource efficient operation of school buildings.

The vision, road map, research and guidance should be actively promoted through all available communication channels, positioning sustainable development as a fundamental objective of the capital programmes, not a 'bolt on'.

7.0 Education and Skills Committee questions

As the above sections may have raised more questions than they answer, we list summary answers to relevant Committee questions below.

Sustainability

Will BSF ensure that schools are sustainable - environmentally, economically and socially?

BSF will not currently ensure that schools are sustainable. The vision for sustainable schools delivery through BSF has not yet been sufficiently developed. A number of elements are currently limiting the potential to deliver sustainable schools through BSF.

Will schools built under BSF satisfy the government's definition of sustainable development as being that 'which meets the needs of the present without compromising the ability of future generations to meet their own needs'?

The BSF programme will not contribute sufficiently to delivering the UK Sustainable Development Strategy or the DfES Sustainable Schools Strategy. The scale of the opportunity to deliver these visions has not been grasped and the programme is currently focused on delivering incremental change in a number of defined areas rather in the context of a much bigger picture. Sustainable development needs to be the overarching principle of BSF and not one in a list of many agendas.

How effective are the tools currently used in BSF to secure sustainable school design, including the Building Research Establishment's Environmental Assessment Method (BREEAM)?

Our assessment of BREEAM Schools is that it does not suitably define a vision for sustainable schools, and will not on its own secure sustainable school design. It will deliver incremental improvement in environmental performance of school buildings, but a step change is needed to move towards the Government's sustainable development (and indeed sustainable procurement – Defra 2006) goals.

Delivery and Funding

How well is the BSF delivery and procurement model working to deliver sustainable schools and best value, including through Partnerships for Schools and Local Education Partnerships?

Partnerships for Schools does not promote sustainable schools as an overarching priority, nor even as a priority.

How successfully are Private Sector Providers working within the BSF framework to deliver sustainable schools and best value?

The BSF contractual arrangements are not designed to sufficiently incentivise

private sector providers to design, build and operate sustainable schools.

Are BSF funding levels sufficient to deliver sustainable transformation?

BSF funding levels are based on a fixed formula and do not allow whole life costing to maximise benefits of upfront investment in sustainable measures.

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