



External Assessment Report 2013

Subject(s)	Managing Environmental Resources
Level(s)	Intermediate 1

The statistics used in this report are pre-appeal.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published question papers and marking instructions for the examination.

Comments on candidate performance

General comments

The paper was thought to be topical and to cover the work outlined in the National Course Specification document. It included environmental issues associated with a farm, renewable energy sources, food waste, and leisure activities. Ecological studies were set in a park and a garden food web, and land use issues included the development of a derelict industrial site and a porridge oats mill.

All of the questions were of a similar standard to previous years. The majority of candidates coped well with the paper. All questions were accessed by at least some of the candidates.

There were no presentations from any third year in a secondary school this year.

All questions functioned properly, and very few candidates did not complete the paper. A few candidates displayed a very low level of literacy. These candidates may have achieved more success at a lower level.

Questions that required specific factual information from the National Course Specification content still prove to be the most difficult. Candidates performed much better when extracting information from passages or tables.

Candidates showed, in certain topical issues, a very positive attitude to, and understanding of, environmental issues.

Areas in which candidates performed well

- ◆ Candidates extracted information from a variety of sources and understood the different types of environment (Q1). Good reasons were also given for the location of the muck heap.
- ◆ Reading a graph, describing a trend and drawing a pie chart were well done. Renewable energy was also well answered in Q2. The options to describe acid rain were well chosen.
- ◆ Q3, the garden food web, with its ecological concepts was also well answered by most candidates. The ladybird was mostly correctly identified from the key, and most interesting explanations were given to explain the decrease in hedgehog numbers.
- ◆ In Q4, the passage about Ben Nevis, candidates correctly extracted information from the passage and table. Most knew how to encourage recycling and, pleasingly, most also knew that a bye-law operates at a local level.
- ◆ Candidates knew about raw materials, man-made and physical requirements in Q5.
- ◆ Most candidates coped well with the compound graph in Q6, although a few forgot to label the y-axis.
- ◆ In Q7, most candidates could read from the graph and give an advantage of reduced packaging.

- ◆ Many candidates correctly interpreted the development depicted by the two diagrams in Q8. Many also knew the other facilities required by visitors. Ways of personally reducing energy and water waste were very well answered.

Areas which candidates found demanding

- ◆ Candidates found it very difficult to remember the specific examples that are mentioned in the course specification, in the middle notes column. It should be pointed out that there are many other correct examples, and marks are always awarded for these.
- ◆ In Q1, most candidates could not name another environmental scheme — Special Protection Areas (SPAs) are mentioned in the notes column. They also found it difficult to name an endangered species in Scottish wetland. Answers included whale, seal, tiger, rhino and haddock.
- ◆ The only part of Q2 which posed some difficulty was in giving an advantage of another named renewable energy source.
- ◆ Most candidates correctly identified the ladybird but then, in part ii, proceeded to draw six spots without referring to statement 3, where it stated the spots had to be arranged in a straight line. This was a discriminating question which performed as expected.
- ◆ Most candidates had answered the ecological definitions in Q2 but, when it came to Q4, based in a leisure context on Ben Nevis, without a food web diagram, most of them found it difficult to answer the decomposer question.
- ◆ Again, in Q5, candidates found it difficult to name the organisation SEPA.
- ◆ It was disappointing that many candidates did not know the name of a pitfall trap in Q6c), and most had difficulty in naming and describing how to measure an abiotic factor.
- ◆ The ratio and percentage calculations proved demanding in Q7, as did naming a local environmental organisation and what SSSI stood for in Q8.

Advice to centres for preparation of future candidates

The most recent SQA Arrangements document for Managing Environmental Resources specifies areas of knowledge and names examples that candidates should know for the external exam. However, the nature of the subject allows for many correct alternative examples. Correct alternatives are always awarded marks.

- ◆ Candidates should know one example of an organisation at local, national and international levels.
- ◆ Candidates should know one example of an initiative at local, national and international levels.
- ◆ Candidates should know one example of a piece of legislation at local, national and international levels.
- ◆ A table with three columns for the different levels, and three rows for the three types — organisation, initiative and legislation — which gives nine boxes to be completed, is perhaps a helpful way to summarise this information for candidates to learn.
- ◆ If there is a named example in any part of the contents section in the subject specification, it can be asked for in the external examination.

It is obvious that most centres prepare their candidates very well in graph or chart completion. Please remember that graphs or charts should be completed in pencil. The lines of a pie chart must meet in the centre and should be drawn with a ruler. Bars in a bar chart must be of the same width, white space must not be seen between where the candidate has drawn the line and where it should be drawn, and all the appropriate information in the headings of the table should be presented on the axes. Bars need not be shaded in, as long as the key can be interpreted correctly. Candidates are strongly advised not to hurriedly shade in bars at the end of their answer as this can result in the loss of a mark when the shading goes above the appropriate line.

Practising questions from past papers is an excellent way to improve a candidate's performance in the exam. Past papers with marking schemes are available on SQA's website. These are extremely useful as they provide correct definitions and exemplification.

The space given after a question indicates what type of answer is expected. A short line indicates a one-word answer, whereas a longer line indicates that a longer answer is required. An explanation is usually given two lines.

Candidates should be advised to read the question carefully. If the question states 'from the diagram ...', the answer is expected to come from that diagram in the question paper, and not from the candidate's class notes.

Statistical information: update on Courses

Intermediate 1 Managing Environmental Resources

Number of resulted entries in 2012	118
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Number of resulted entries in 2013	39
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Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark 100				
A	15.4%	15.4%	6	56
B	20.5%	35.9%	8	48
C	35.9%	71.8%	14	40
D	7.7%	79.5%	3	36
No award	20.5%	100.0%	8	-

General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related, as they do not contain identical questions.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.