

Case study: In Malaysia's Perak State, Kanthan plant is proposing to develop the quarry used to provide the raw materials required for making cement. The plant has maintained the necessary operating leases since operations commenced in 1964 (the latest lease for the quarry and operating permit were granted by the relevant State Government departments in 1990). The quarry development plan proposes to extract limestone from two new locations within the quarry – Area 'C' and Area 'D' - both of which are to the southern part of Kanthan Hill. In preparing the programme, the plant has completed a mining plan, biodiversity study and commenced consultation with stakeholders, including faith groups that have been using caves within Kanthan Hill.

Concerns about the project	What is Lafarge's position?
<ul style="list-style-type: none"> • The quarry development threatens biodiversity based in the area 	<ul style="list-style-type: none"> • A eleven-month biodiversity study of Kanthan Hill, particularly within areas C&D, was completed in June 2014. The study was conducted by the University of Malaya's Institute of Biological Science, led by Professor Dr. Rosli Hashim. • The study's terms of reference were agreed with members of Lafarge's International Biodiversity Panel and shared with some local external associations, including Malaysian Nature Society (MNS) and WWF Malaysia for their comments. • The study involved an independent team of experts. A total of over 500 hours were spent at the site, with around 384 species studied. • At the outset of the study, it was identified that there was sensitive biodiversity in Area D. The level of biodiversity within Area C did not appear to be at the same level of sensitivity due to use of this area by third parties over the years. • This finding was confirmed by the study, which also produced management recommendations on how to manage the biodiversity identified by the study. • Following these findings, access to a potential area of sensitive biodiversity within Area D ('Cathedral Cavern') was restricted to ensure any access was properly managed. • As part of measures to conserve the biodiversity of Area D, the plant is looking into relocating the temple located within Area D.
<ul style="list-style-type: none"> • There is extremely rare biodiversity in Area C & D which cannot be relocated 	<ul style="list-style-type: none"> • Within Cathedral Cavern in Area D, a species identified as a Trapdoor Spider (Iphistius kanthan) was discovered. This species is categorized as 'Critically Endangered' by International Union for Conservation of Nature (IUCN). • As a result, Lafarge has committed to manage the biodiversity conservation of Cathedral Cavern and protect critically endangered species such as Iphistius kanthan, in accordance with the recommendations of the local experts. Access to the cavern remains restricted.

	<ul style="list-style-type: none"> • Management plans for biodiversity found within Area C, which is at a less sensitive level than in Area D, are being developed. Potential options could include the relocation of species and fitting a radio collar to track the movement of the Serow Goat, whose presence (through droppings) was detected in a number of places around the hills, including within Area C. • A consultation process with local authorities and main local stakeholders has started (including Perak State Exco) to allow the necessary planning to be completed and the quarry development program to be implemented.
<ul style="list-style-type: none"> • The biodiversity study did not identify all sensitive species 	<p>The study involved an independent team of experts. A total of over 500 hours were spent at the site, with around 384 species studied. From the study's recommendations, a detailed 12-month action plan is being developed, including:</p> <ul style="list-style-type: none"> • To conduct further biodiversity fieldwork and study in Areas A, C and D on a quarterly basis to gain further understanding of biodiversity in these areas, with the option of inviting other expert organisations to collaborate. • Extend the study to Gunung Kuang, a nearby limestone hill, for comparative study and endemic characterisation. • Invite other expert organisations, such as Forest Research Institute Malaysia (FRIM) to collaborate on the implementation of the biodiversity management plan and rehabilitation work. • To allocate an area for the further study of snails within the Buffer Zone in Area A and set-up a nursery for endemic or endangered flora within the vicinity.
<ul style="list-style-type: none"> • The quarry development plan will impact on local faith groups who use caves within Area C and D 	<ul style="list-style-type: none"> • The plant maintains an active engagement programme with its local stakeholders. It has also engaged with all local faith groups within the Kanthan Hill vicinity, including those that have been using caves within Areas C and D for a number of years without permission. • The caves themselves have been subject to some development, such as concreting and tiling work as well as installation of lighting facilities.

	<ul style="list-style-type: none"> • As part of its program, Lafarge proposes to work with these groups to find an alternative location for their activities and support their relocation. The State Government who had highlighted possible safety issues for the groups to remain in the caves. • The plant has initiated dialogues with all of the temples, although appropriate areas for relocation have not yet been discussed. • Other stakeholder engagement, include: <ul style="list-style-type: none"> • April 2014: Results of biodiversity study presented to Perak State Chief Minister and State Exco • May 2014: Results of study briefed to Perak media • June 2014: Results of study presented to MNS and their stakeholders, which included representatives from FRIM, WWF, and temples • September 2014: Meeting and site visit with committee led by PTG Director, following request by Chief Minister to review quarry development plan. • October 2014: Meeting & briefing with new Chairman of the MNS. • March 2015: Two meetings with Director of Forestry Biodiversity of FRIM and his team.
<p>Press coverage in August and November referred to snail species - <i>charopa lafargei</i> - identified during a study conducted in 2011 by Vermeulen & Marzuki (published in 2014 by Basteria – 78, 1-3: 31-34)</p> <p>The study took place in an area north of Lafarge’s existing quarry operations (known locally as Zone A buffer zone).</p> <p>Its name was derived by the researchers: ‘Scientists name new endangered species after the company that will decide its fate’</p>	<ul style="list-style-type: none"> • The Zone A buffer zone has been protected by Lafarge for many years and there are no plans to quarry in this area in the future. • Although there is reference to actions required by Lafarge to protect the species, only empty snail shells were found during the 2011 study. • Currently, no evidence of live species has been found. Lafarge has committed to further studies to determine the status of these snails. • Other snail species have been identified by press reports: <ul style="list-style-type: none"> ○ <i>Opisthostoma trapezium</i> which relates to a finding in a nearby forest area in 1952. ○ <i>Plectostoma sciaphilum</i>, a snail species whose extinction is related to a cement company based in Bukit Sagu in Pahang, Malaysia (and is completely unrelated to Lafarge or any Lafarge operations). • The study by University of Malaya recommends that further studies on the limestone snails be conducted.
<p>For more information on the position of Malaysian Nature Society on this proposed development, please visit: www.mns.my</p>	

