

Subject to priorities defined by the Steering Committee and the Presidium, the results of <i>fib</i> 's work in Commissions and Task Groups are published in a continuously numbered series of technical publications called 'Bulletins'. The following categories are used:	
category	minimum approval procedure required prior to publication
Technical Report	approved by a Task Group and the Chairpersons of the Commission
State-of-Art Report	approved by a Commission
Manual or Guide (to good practice)	approved by the Steering Committee of <i>fib</i> or its Publication Board
Recommendation	approved by the Council of <i>fib</i>
Model Code	approved by the General Assembly of <i>fib</i>
Any publication not having met the above requirements will be clearly identified as preliminary draft.	
This Bulletin N° 28 was approved as a <i>fib</i> state-of-art report in autumn 2003 by <i>fib</i> Commission 3, <i>Environmental aspects of design and construction</i>	

This report was drafted by *fib* Task Group 3.3, *Environmental design*:

Koji Sakai (Convenor, Kagawa University, Japan)

Andrzej B. Ajdukiewicz (Silesian Technical University, Poland), Jan Desmyter (Belgian Building Research Institute, Belgium), Petr Hájek (Czech Technical University in Prague, Czech Republic), Makoto Hisada (Public Works Research Institute, Japan), Makihiko Ichikawa (Taiheiyo Cement, Japan), Kenji Kawai (Hiroshima University, Japan), Hirotaka Kawano (Public Works Research Institute, Japan), Hiroyuki Mizuguchi (University of Tokushima, Japan), Takafumi Noguchi (University of Tokyo, Japan), Michael Schmidt (University of Kassel, Germany), Martin Schneider (German Cement Works Association, Germany), Peter Sommer (Consulting Engineer, Switzerland), Petr Stepánek (Technical University of Brno, Czech Republic), Masaki Tamura (Tokyo Metropolitan University, Japan)

Full address details of Task Group members may be found in the *fib* Directory or through the online services on *fib's* website, <http://fib.epfl.ch>.

Cover picture: Life cycle of concrete structure – material and energy flows and consequent environmental impacts (see Fig. 5.3-1)

© fédération internationale du béton (*fib*), 2004

Although the International Federation for Structural Concrete *fib* - fédération internationale du béton - created from CEB and FIP, does its best to ensure that any information given is accurate, no liability or responsibility of any kind (including liability for negligence) is accepted in this respect by the organisation, its members, servants or agents.

All rights reserved. No part of this publication may be reproduced, modified, translated, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission.

First published in 2004 by the International Federation for Structural Concrete (*fib*)

Post address: Case Postale 88, CH-1015 Lausanne, Switzerland

Street address: Federal Institute of Technology Lausanne - EPFL, Département Génie Civil

Tel +41 21 693 2747, Fax +41 21 693 5884, E-mail fib@epfl.ch, web <http://fib.epfl.ch>

ISSN 1562-3610

ISBN 2-88394-068-1

Printed by Sprint-Digital-Druck Stuttgart