

Report of the thirty-third session of GESAMP

Rome, 5–9 May 2003

The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) held its Thirty-third Session at FAO headquarters, Rome, from 5 to 9 May 2003. The Group considered a number of major topics at this session, including the future of GESAMP and the completion of the Strategic Plan, which GESAMP and its supporting agencies are committed to implementing as soon as possible. The supporting agencies have agreed to initiate the development of the GESAMP pool of experts and to take concrete steps to establish the GESAMP office. GESAMP took note of UN General Assembly resolution A/RES/57/141 requesting the establishment of a regular global marine assessment process by 2004 and proposed that it play a significant role in that process. The main work item of the GESAMP Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships focused on the re-evaluation of the hazards of the substances listed in the International Bulk Chemicals Code, of which a total of 680 substances have now been evaluated. GESAMP noted the progress made on the completion of the hazard profiles for 19 vegetable, animal and fish oils. The Working Group on Environmental Exposure Models for Application in Seafood Risk Analysis is presently focusing on the development and testing of exposure assessment models for organic chemicals, especially in order to identify bioaccumulation models that could be useful in predicting the safety of seafood harvested from a given water body. GESAMP further noted the current concerns about the pollution caused by the accident of the tanker "Prestige", which now lies on the seabed at a water depth greater than 3 000 metres, and noted that a series of scientific questions await major research on the behaviour and impact of oil and other substances released in the oceans, particularly at great depths.



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of Marine Environmental Protection (GESAMP)**

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**IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP
Joint Group of Experts on the
Scientific Aspects of Marine Environmental Protection
- GESAMP -**

**REPORT OF THE THIRTY-THIRD SESSION
Rome, 5 - 9 May 2003**



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2003

Notes

1. GESAMP is an advisory body consisting of specialized experts nominated by the Sponsoring Agencies (IMO, FAO, UNESCO-IOC, WMO, WHO, IAEA, UN, UNEP). Its principal task is to provide scientific advice concerning the prevention, reduction and control of the degradation of the marine environment to the Sponsoring Agencies.
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3. The report contains views expressed by members of GESAMP who act in their individual capacities; they may not necessarily correspond with those of the Sponsoring Agencies.
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EXECUTIVE SUMMARY

1 Introduction: The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) held its thirty-third session at the Headquarters of the Food and Agriculture Organization of the United Nations in Rome from 5 to 9 May 2003. GESAMP was established in 1969 by a number of United Nations Organizations as a Joint Group to encourage the independent, interdisciplinary consideration of marine pollution and environmental protection problems with a view to avoiding duplication of efforts within the United Nations system. The main topics considered at this session are described below:

2 Future of GESAMP - Completion of the Strategic Plan: The UN Commission on Sustainable Development (CSD) at its fourth (1996) and seventh (1999) sessions recognised GESAMP as a "source of agreed, independent scientific advice", but invited GESAMP's sponsoring organizations to review the Group "with a view to improving its effectiveness and comprehensiveness" and "establishing a means for GESAMP to interact with scientific representatives of Governments and major groups." In response to this, the Sponsoring Agencies commissioned an independent and in-depth review of GESAMP (2000–2002) and, subsequently, developed a draft Strategic Plan.

The revised GESAMP Mission Statement as indicated in the draft Strategic Plan is "to provide authoritative, independent, interdisciplinary scientific advice to organizations and governments to support the protection and sustainable use of the marine environment."

In fulfilment of its mission GESAMP has the following functions:

In response to requests, to (1) integrate and synthesise the results of regional and thematic assessments and scientific studies to support global assessments of the marine environment, (2) provide scientific and technical guidance on the design and execution of marine environmental assessments, (3) provide scientific reviews, analyses, and advice on specific topics relevant to the condition of the marine environment, its investigation, protection, and/or management.

On a regular basis, to (4) provide an overview of the marine environmental monitoring, assessment, and related activities of UN agencies and advise on how these activities might be improved and better integrated and coordinated and (5) to identify new and emerging issues regarding the degradation of the marine environment that are of relevance to governments and sponsoring organizations.

Among the major topics developed in the Strategic Plan were: the nomination of experts to a GESAMP pool by governments, regional organizations, scientific bodies, and other groups in addition to the UN Sponsoring Agencies; mechanisms for Governments and major groups to propose and sponsor GESAMP projects; and the development of a GESAMP Office to more effectively and efficiently co-ordinate GESAMP's activities and products.

GESAMP and its supporting agencies are committed to implementing the new Strategic Plan as soon as possible. The supporting agencies have agreed to initiate the development of the GESAMP pool of experts and to take concrete steps to establish the GESAMP office.

3 Contribution to the Establishment of a Regular Global Marine Assessment Process by 2004: GESAMP took note of UN General Assembly resolution A/RES/57/141, paragraph 45, requesting the establishment of a regular global marine assessment (GMA) process by 2004 and proposed that it be involved in a significant way in that process. It was envisaged that the GMA Process would comprise three phases, (1) a Design/Stakeholder Engagement Phase, (2) a Regional Phase and (3) a Global Phase. With its scientific expertise and long-standing experience in marine environmental assessments, GESAMP was eminently

well qualified for a leadership role in the global scientific panel for the GMA. It could contribute to designing the scientific aspects of the assessment in Phase 1 and to the synthesis of the regional and sectoral assessments into the global scientific assessment in Phase 3. Furthermore, the GESAMP pool of experts could provide specialist expertise in specific sectoral and technical issues. GESAMP believes that it should also be involved at other levels of the GMA to ensure the necessary linkage to the process as a whole.

4 Evaluation of the Hazards of Harmful Substances Carried by Ships: The main work item focused on the re-evaluation of the hazards of the substances listed in the International Bulk Chemicals (IBC) Code, of which a total of 680 substances have now been evaluated. Some 90 of these substances do not contain sufficient data for IMO to assign pollution categories. The Working Group had called on industry to provide the necessary data on many occasions without success.

The future role of the EHS Working Group is being considered and might include the continued evaluation of new bulk liquid chemical substances, the evaluation of chemicals for transport as packaged goods, the evaluation of the hazards associated with the proposed use of ballast water biocides, and the provision of advice on the hazards of anti-fouling biocides.

GESAMP took note of progress made with the completion of the hazard profiles for 19 vegetable, animal and fish oils. Despite the fact that many of these oils are destined for human consumption, the few aquatic toxicity studies available show that not all are 'non-toxic' to the aquatic environment as claimed. To date, the Working Group has completed six of the 19 products on the basis of the available test data. As information from industry has not been forthcoming for the missing products, it was decided to give all these 13 products a precautionary rating of '(2)' indicating 'slight' aquatic ecotoxicity. GESAMP considered that the use of such expert judgement was justified in the given circumstances.

5 Environmental Exposure Models for Application in Seafood Risk Analysis: The Working Group identified three inherent risks to public health through consumption of seafood produced in marine waters i.e. chemical contaminants, microbial pathogens and marine phycotoxins. The Working Group had decided as first priority to focus on the development and testing of exposure assessment models for organic chemicals. The main objectives of this work are to identify bioaccumulation models which could be useful in predicting the safety of seafood harvested from a given water body, to review and evaluate these models for potential application with regards to contaminants of greatest concern, and to quantitatively test these models as to their ability to predict tissue residue levels based on environmental (i.e., water or sediment) contaminant concentrations and relevant physiological variables.

6 Identification of New and Emerging Issues Regarding the Degradation of the Marine Environment: GESAMP noted the current concerns about the pollution caused by the accident of the Bahamian tanker "Prestige", which now lies on the seabed at a water depth greater than 3 000 metres. Contrary to expectations that the oil would solidify at that high pressure and low temperature, the wreck is still releasing heavy fuel to the deep marine environment. The Group, while recognizing the existence of various scientific programmes on long-term effects of oil released to the marine environment, noted that a series of scientific questions await major research on behaviour and impact of oil and other substances released in the oceans, particularly at great depths.

RÉSUMÉ

1 Introduction: Le Groupe mixte d'experts chargé d'examiner les aspects scientifiques de la protection de l'environnement marin (GESAMP) a tenu sa trente-troisième session au siège de l'Organisation des Nations Unies pour l'alimentation et l'agriculture, à Rome, du 5 au 9 mai 2003. Le GESAMP a été constitué en 1969 par différents organismes des Nations Unies en tant que groupe mixte pour favoriser l'étude indépendante et interdisciplinaire de la pollution marine et des problèmes de protection de l'environnement, en vue d'éviter le chevauchement des travaux dans le système des Nations Unies. Les principaux sujets examinés lors de cette session sont décrits ci-après:

2 Avenir du GESAMP – Exécution du plan stratégique: La Commission du développement durable (CDD) de l'ONU, à ses quatrième (1996) et septième (1999) sessions, a reconnu que le GESAMP était «une source d'avis scientifiques convenus et indépendants» E305, mais a invité les organes de parrainage du GESAMP à réexaminer le mandat du Groupe «en vue d'améliorer son efficacité et son caractère systématique» et «de donner au Groupe les moyens d'interagir avec les représentants scientifiques des gouvernements et des grands groupes». En réponse à cela, les organes de parrainage ont commandité un examen indépendant et approfondi du GESAMP (2000–2002) et, par la suite, ont établi un projet de plan stratégique.

Le mandat révisé du GESAMP, tel que formulé dans le projet de plan stratégique, est de «fournir des avis scientifiques faisant autorité, indépendants et interdisciplinaires aux organismes et aux gouvernements pour appuyer la protection et l'utilisation durable de l'environnement marin.»

Pour s'acquitter de sa mission le GESAMP exerce les fonctions suivantes:

En réponse aux demandes qui lui sont faites, 1) il intègre et fait la synthèse des résultats des évaluations régionales et thématiques et des études scientifiques pour appuyer les évaluations mondiales de l'état du milieu marin; 2) il fournit des avis scientifiques et techniques sur la conception et l'exécution des évaluations de l'état du milieu marin; et 3) il examine et analyse des questions spécifiques se rapportant à l'état du milieu marin, à son observation, à sa protection et/ou à sa gestion, et formule des avis scientifiques à leur sujet.

De façon régulière, 4) il fait le point des activités de suivi du milieu marin, des activités d'évaluation des organismes de l'ONU et activités connexes, et formule un avis sur la façon dont ces activités pourraient être améliorées et mieux intégrées et coordonnées; enfin 5) il identifie les questions nouvelles ou émergentes se rapportant à la dégradation du milieu marin qui concernent les gouvernements et les organismes de parrainage.

Au nombre des grands points dont traite le plan stratégique figurent: la nomination des experts inscrits sur la liste commune du GESAMP par les gouvernements, les organismes régionaux, les entités scientifiques et d'autres groupes en sus des organismes de parrainage de l'ONU; les mécanismes permettant aux gouvernements et aux grands groupes de proposer et de parrainer des projets menés par le GESAMP; et la mise sur pied d'un bureau du GESAMP pour coordonner de manière plus efficace et efficiente les activités et les produits du GESAMP.

Le GESAMP et ses organes d'appui sont déterminés à mettre en œuvre dès que possible ce nouveau plan stratégique. Les organes d'appui ont accepté de lancer l'établissement de la liste d'experts du GESAMP et de prendre des mesures concrètes pour créer le bureau du GESAMP.

3 Contribution à l'établissement d'un processus ordinaire pour les analyses et évaluations mondiales de l'état du milieu marin d'ici à 2004: Le GESAMP a pris note de la résolution A/RES/57/141 de l'Assemblée générale de l'ONU, paragraphe 45, demandant l'établissement d'un processus ordinaire pour les analyses et évaluations mondiales de l'état du milieu marin d'ici à 2004, et a proposé de s'impliquer de manière significative dans ce processus. Il a été envisagé que ce processus comporte trois phases: 1) une phase de conception et d'engagement des parties prenantes; 2) une phase régionale; et 3) une phase mondiale. Du fait de son expertise scientifique et de sa longue expérience des évaluations de l'état du milieu marin, le GESAMP est éminemment qualifié pour exercer un rôle de pointe dans le groupe scientifique mondial chargé du processus ordinaire. Il pourrait contribuer à la conception des aspects scientifiques de l'évaluation dans sa phase 1 et à la synthèse des évaluations régionales et sectorielles pour l'évaluation scientifique mondiale dans sa phase 3. En outre, le groupe d'experts du GESAMP pourrait apporter l'expertise de spécialistes dans des domaines sectoriels et techniques spécifiques. Le GESAMP estime qu'il devrait également être associé au processus ordinaire d'évaluation à d'autres niveaux encore pour assurer les liaisons nécessaires avec le processus dans son ensemble.

4 Evaluation des risques liés aux substances nocives transportées par les navires: Le travail s'est essentiellement concentré sur la réévaluation des risques présentés par les substances énumérées dans le Recueil international de règles sur les transporteurs de produits chimiques (Recueil IBC), dont au total 680 substances ont maintenant été évaluées. Environ 90 de ces substances ne sont pas assorties de données suffisantes pour que l'OMI assigne des catégories de pollution. Le groupe de travail a invité en diverses occasions l'industrie à fournir les données nécessaires, sans succès.

Le rôle futur du groupe de travail sur les substances nocives est à l'examen et pourrait être élargi à l'évaluation continue de nouvelles substances chimiques liquides transportées en vrac, à l'évaluation des produits chimiques transportés sous emballage, à l'évaluation des risques associés à l'utilisation proposée de biocides dans les eaux de ballast et à la fourniture d'avis sur les risques présentés par les biocides anti-salissure des œuvres vives.

Le GESAMP a noté les progrès accomplis avec l'achèvement des profils de risque pour 19 huiles tirées de produits végétaux, animaux ou du poisson. Bien que plusieurs de ces huiles soient destinées à la consommation humaine, les rares études de toxicité disponibles montrent que toutes ne sont pas inoffensives pour l'environnement aquatique comme il est prétendu qu'elles le seraient. Jusqu'ici, le groupe de travail a achevé six profils sur les 19 produits, sur la base des données disponibles. Comme les informations demandées au secteur industriel n'ont pas été communiquées pour les produits restants, il a été décidé d'attribuer à ces 13 produits une cotation de précaution de «2» correspondant à une écotoxicité aquatique «légère». Le GESAMP a estimé que l'application de cette évaluation d'experts était justifiée en la circonstance.

5 Modèles d'exposition environnementale pour application dans l'analyse de l'innocuité des fruits de mer: Le groupe de travail a identifié trois risques de santé publique relatifs à la consommation de fruits de mer produits dans les eaux marines, à savoir une contamination par des contaminants chimiques, des agents microbiens pathogènes et des phytotoxines marines. Le groupe de travail a décidé de donner la priorité au développement et à la mise à l'épreuve de modèles d'évaluation de l'exposition aux substances chimiques organiques. Les principaux objectifs de ce travail consistent à identifier des modèles de bioaccumulation qui pourraient permettre de prévoir l'innocuité des fruits de mer récoltés dans des eaux données, d'examiner et d'évaluer ces modèles en vue d'une application potentielle aux contaminants les plus préoccupants, et de procéder à des essais quantitatifs de ces

modèles pour établir leur capacité de prévision des niveaux de résidus présents dans les tissus à partir de concentrations environnementales données de contaminants (à savoir dans les eaux ou dans les sédiments) et des variables physiologiques pertinentes.

6 Identification de questions nouvelles ou émergentes relatives à la dégradation de l'environnement marin: Le GESAMP a noté les préoccupations auxquelles donne lieu la pollution provoquée par l'accident du navire-citerne bahaméen «Prestige», qui se trouve maintenant sur le fond de la mer par des fonds dépassant 3 000 mètres. Contrairement aux attentes que le pétrole se solidifierait sous l'effet de la forte pression et d'une basse température, l'épave continue de dégager du fioul lourd dans l'environnement marin profond. Le Groupe, tout en observant l'existence de divers programmes scientifiques sur les effets à long terme de dégagements de pétrole dans l'environnement marin, a noté qu'une série de questions scientifiques restent sans réponse en attendant que soient menées des recherches de fond sur le comportement et l'impact du pétrole et d'autres substances libérées dans les océans, en particulier aux grandes profondeurs.

УСТАНОВОЧНОЕ РЕЗЮМЕ

1 Введение. Объединенная группа экспертов по научным аспектам защиты морской среды (ГЕСАМП) провела 5–9 мая 2003 года в штаб-квартире Продовольственной и сельскохозяйственной организации ООН в Риме свою тридцать третью сессию. ГЕСАМП была образована в 1969 году рядом организаций системы Организации Объединенных Наций как совместная группа, призванная содействовать независимому, междисциплинарному рассмотрению проблем загрязнения моря и охраны окружающей среды и предотвращать дублирование усилий в рамках этой системы. Ниже описываются основные темы, рассматривавшиеся на этой сессии.

2 Будущее ГЕСАМП – составление Стратегического плана. Комиссия по устойчивому развитию (КУР) ООН на своей четвертой (1996 год) и седьмой (1999 год) сессиях признала ГЕСАМП в качестве "источника согласованных, независимых научных рекомендаций", однако предложила организациям-спонсорам ГЕСАМП провести обзор Группы "с целью повышения ее эффективности и комплексности" и "создания для ГЕСАМП средства взаимодействия с научными представителями правительств и основных групп." В ответ на это учреждения-спонсоры провели независимый углубленный обзор ГЕСАМП (2000-2002 годы) и впоследствии разработали проект стратегического плана.

Пересмотренным программным заявлением ГЕСАМП, указанным в проекте стратегического плана, является "предоставление авторитетных, независимых, междисциплинарных научных рекомендаций организациям и правительствам для поддержки защиты и устойчивого использования морской среды."

Во исполнение своей миссии ГЕСАМП выполняет нижеследующие функции.

В ответ на просьбы: 1) объединяет и обобщает результаты региональных и тематических оценок и научных исследований для поддержки глобальных оценок морской среды, 2) предоставляет научно-технические рекомендации о разработке и выполнении оценок морской среды, 3) предоставляет научные обзоры, анализы и консультации по конкретным темам, имеющим отношение к состоянию морской среды, ее исследованию, защите и/или управлению.

На регулярной основе: 4) предоставляет обзор мониторинга, оценки морской среды и относящейся к этому деятельности учреждений ООН и предоставляет консультации относительно совершенствования и улучшения интеграции и координации этой деятельности и 5) выявляет новые возникающие вопросы, касающиеся деградации морской среды, которые значимы для правительств и организаций-спонсоров.

К основным темам, разработанным в Стратегическом плане, относятся: назначение экспертов в пул ГЕСАМП правительствами, региональными организациями, научными органами и другими группами, помимо учреждений-спонсоров ООН; механизмы предложения и спонсирования проектов ГЕСАМП, предназначенные для правительств и основных групп; и создание бюро ГЕСАМП для более эффективной и действенной координации деятельности ГЕСАМП и выдаваемой ею продукции.

ГЕСАМП и поддерживающие ее учреждения обязались как можно скорее приступить к осуществлению нового Стратегического плана. Поддерживающие учреждения согласились начать разработку пула экспертов ГЕСАМП и предпринять конкретные шаги для учреждения бюро ГЕСАМП.

3 Вклад в учреждение к 2004 году регулярного процесса глобальной оценки состояния морской среды. ГЕСАМП приняла к сведению пункт 45 резолюции A/RES/57/141 Генеральной Ассамблеи ООН, в котором предлагается учредить к 2004 году регулярный процесс глобальной оценки состояния морской среды (ГОМС), и предложила, что ей следует принять активное участие в этом процессе. Предполагалось, что процесс ГОМС будет включать три этапа: 1) этап проектирования/сотрудничества заинтересованных сторон, 2) региональный этап и 3) глобальный этап. Обладая специальными научными знаниями и большим опытом оценок состояния морской среды, ГЕСАМП высоко компетентна осуществлять руководство глобальной научной группой по ГОМС. Она могла бы внести вклад в проектирование научных аспектов оценки на этапе 1 и в объединение региональных и секторальных оценок в глобальную научную оценку на этапе 3. Кроме того, эксперты ГЕСАМП могли бы предоставить специальные знания по конкретным секторальным и техническим вопросам. ГЕСАМП считает, что ей также следует участвовать в работе на других уровнях ГОМС для обеспечения необходимой связи с процессом в целом.

4 Оценка опасности вредных веществ, перевозимых на судах. Основной пункт работы был сосредоточен на переоценке опасности веществ, перечисленных в Международном кодексе по химовозам (МКХ), из которых к настоящему времени оценены всего 680 веществ. Почти по 90 из этих веществ нет достаточных данных, с тем чтобы ИМО присвоила им категории загрязнителя. Неоднократно, но безуспешно Рабочая группа призвала отрасль предоставить необходимые данные.

Рассматривается будущая роль Рабочей группы EHS, которая может включать дальнейшую оценку новых жидких химических веществ, перевозимых наливом, оценку химических веществ для перевозки в качестве грузов в упаковке, оценку опасности, связанной с предлагаемым использованием биоцидов для водяного балласта, а также предоставление рекомендаций относительно опасности противообрастающих биоцидов.

ГЕСАМП приняла к сведению достигнутый прогресс в завершении профилей опасности 19 растительных масел, животных и рыбьих жиров. Несмотря на тот факт, что многие из этих масел и жиров предназначены для употребления в пищу человеком, несколько имеющихся исследований токсичности для водной среды показывают, что, вопреки утверждениям, не все из них "нетоксичны" для водной среды. К настоящему моменту Рабочая группа на основании имеющихся опытных данных завершила оценку 6 из 19 продуктов. Поскольку поступление от отрасли информации об остальных продуктах в ближайшее время не ожидается, было решено присвоить всем этим 13 продуктам предупреждающую категорию "(2)", указывающую на "незначительную" экотоксичность для водной среды. ГЕСАМП сочла, что использование такой экспертной оценки в данных обстоятельствах обосновано.

5 Модели экологического воздействия для применения при анализе риска в отношении морепродуктов. Рабочая группа установила три вида риска для здоровья

человека в результате употребления в пищу морепродуктов, производимых в морских водах, т.е. химические загрязнители, микробные патогены и морские фитотоксины. Рабочая группа решила в первую очередь сосредоточить внимание на разработке и испытании моделей оценки воздействия органических веществ. Основными целями этой работы являются установление моделей биоаккумуляции, которые могут быть полезными в прогнозировании безопасности морепродуктов, собранных в данном водоеме, обзор и оценка этих моделей для возможного применения в отношении загрязнителей, вызывающих наибольшую обеспокоенность, и количественное испытание этих моделей на их способность прогнозировать уровни остатков тканей на основании концентраций загрязнителей в окружающей среде (т.е. вода или осадки) и соответствующих физиологических переменных.

6 Выявление новых возникающих вопросов, касающихся деградации морской среды. ГЕСАМП отметила существующую обеспокоенность загрязнением, вызванным аварией багамского танкера "Престиж", который в настоящее время лежит на морском дне на глубине более 3000 метров. Вопреки предположениям, что при высоком давлении и низкой температуре нефть будет затвердевать, из затонувшего судна по-прежнему вытекает тяжелое топливо в глубоководную морскую среду. Признавая наличие различных научных программ по длительному воздействию нефти, сброшенной в морскую среду, Группа отметила, что широкие исследования поведения и воздействия нефти и других веществ, сброшенных в океан, особенно на больших глубинах, позволят дать ответы на ряд научных вопросов.

RESUMEN OPERATIVO

1 Introducción. El Grupo Mixto de Expertos sobre los Aspectos Científicos de la Protección del Medio Marino (GESAMP) celebró su 33ª reunión en la sede de la Organización de las Naciones Unidas para la Agricultura y la Alimentación en Roma, del 5 al 9 de mayo de 2003. El GESAMP fue establecido en 1969 por varias organizaciones de las Naciones Unidas como un grupo mixto con el propósito de estimular un examen independiente e interdisciplinario de los problemas de contaminación marina y protección del medio ambiente, con miras a evitar la duplicación de tareas dentro del sistema de las Naciones Unidas. A continuación se describen los principales temas que se examinaron en esta reunión.

2 Futuro del GESAMP– Finalización del plan estratégico. La Comisión de las Naciones Unidas sobre el Desarrollo Sostenible (CDS) reconoció en sus períodos de sesiones cuarto (1996) y séptimo (1999) que el GESAMP constituía una «fuente de asesoramiento científico aceptado e independiente», pero invitó a las organizaciones patrocinadoras del GESAMP a que procedieran a un examen del Grupo, «con miras a mejorar su eficacia y exhaustividad» y «establecer los medios para que el GESAMP pudiera interactuar con los representantes científicos de los gobiernos y principales agrupaciones». Atendiendo a esta solicitud, los organismos patrocinadores encargaron un examen independiente y pormenorizado del GESAMP (2000-2002) y ulteriormente elaboraron un proyecto de plan estratégico.

La declaración revisada sobre la misión del GESAMP según se define en el proyecto de plan estratégico, indica que ésta consiste en «prestar asesoramiento científico actualizado, independiente e interdisciplinario a las organizaciones y gobiernos en apoyo de la protección y la utilización sostenible del medio marino».

En el cumplimiento de su misión el GESAMP tiene las siguientes funciones:

Atendiendo a solicitudes, 1) integrar y sintetizar los resultados de las evaluaciones regionales y temáticas y estudios científicos en apoyo de evaluaciones mundiales del medio marino; 2) prestar orientación científica y técnica en la concepción y realización de evaluaciones del medio marino, 3) aportar exámenes, análisis y asesoramiento científico sobre temas específicos pertinentes a la condición del medio marino, su investigación, protección y/u ordenación.

Con carácter periódico, 4) ofrecer un panorama general de las actividades de seguimiento y evaluación y actividades conexas de los organismos de las Naciones Unidas en relación con el medio marino, y prestar asesoramiento sobre la manera de mejorar e integrar y coordinar mejor esas actividades y 5) definir cuestiones nuevas e incipientes en relación con la degradación del medio marino, que tengan pertinencia para los gobiernos y organizaciones patrocinadoras.

Entre los temas principales elaborados en el plan estratégico pueden mencionarse la designación por parte de gobiernos, organizaciones regionales, órganos científicos y otros grupos, además de los organismos patrocinadores de las Naciones Unidas, de expertos para la constitución de un grupo común del GESAMP; mecanismos para que los gobiernos y los grupos importantes propongan y patrocinen proyectos del GESAMP, y el establecimiento de

una oficina del GESAMP para coordinar de forma más eficaz y eficiente las actividades y productos del Grupo.

El GESAMP y los organismos que lo respaldan se han comprometido a aplicar el nuevo plan estratégico con la mayor prontitud. Dichos organismos han acordado iniciar el establecimiento de un grupo de expertos del GESAMP y adoptar medidas concretas para establecer la oficina del GESAMP.

3 Contribución al establecimiento de un proceso para la evaluación periódica del medio marino mundial para 2004. El GESAMP tomó nota de la resolución A/RES/57/141 de la Asamblea General de las Naciones Unidas que, en su párrafo 45, pedía el establecimiento de un proceso de evaluación periódica del medio marino para 2004 y proponía que el GESAMP participara de forma activa en ese proceso. Según lo previsto, el proceso de evaluación mundial del medio marino abarcaría tres etapas: 1) una fase de concepción e integración de las partes interesadas, 2) una fase regional y 3) una fase mundial. Con sus conocimientos científicos especializados y su larga experiencia en evaluaciones del medio marino, el GESAMP estaba en una situación inmejorable para asumir una función de liderazgo en el grupo mundial de expertos científicos para esta evaluación. Podría contribuir a la formulación de los aspectos científicos de la evaluación en la fase 1 y a la síntesis de las evaluaciones regionales y sectoriales en una evaluación científica mundial en la fase 3. Además, el grupo de expertos del GESAMP podría aportar conocimientos científicos especializados en cuestiones técnicas y sectoriales específicas. El GESAMP estima que también ha de participar a otros niveles del programa para asegurar la necesaria coordinación con el proceso en su conjunto.

4 Evaluación de los peligros de las sustancias perjudiciales transportadas por buques. El principal aspecto de la labor se centró en una nueva evaluación de los peligros de las sustancias enumeradas en el Código Internacional de Productos Químicos a Granel, de las cuales hasta la fecha se han evaluado en total 680. En relación con unas 90 de estas sustancias no se dispone de suficientes datos para que la OMI les asigne una de las categorías de contaminación. En muchas oportunidades el Grupo de Trabajo había exhortado a la industria a suministrar los datos necesarios, pero sin resultados.

Se está examinando la función futura del Grupo de Trabajo sobre evaluación de los peligros de sustancias perjudiciales que podría incluir la evaluación permanente de nuevas sustancias químicas líquidas a granel, la evaluación de productos químicos que se transporten envasados, la evaluación de los peligros asociados con la utilización propuesta de productos biocidas en el agua de lastre y la prestación de asesoramiento sobre los peligros de los biocidas antiincrustantes.

El GESAMP tomó nota de los progresos alcanzados en la realización de los perfiles de peligros de 19 aceites vegetales, animales y de pescado. Pese a que muchos de estos aceites estaban destinados al consumo humano, los pocos estudios de toxicidad acuática disponibles mostraban que no todos eran «no tóxicos» para el medio acuático como se afirmaba. Hasta la fecha, el Grupo de Trabajo había finalizado el análisis de seis de los 19 productos, sobre la base de los datos de ensayos disponibles. Como no se había recibido información de la industria para los productos restantes, se decidió clasificar de forma preventiva a esos 13 productos en la categoría «(2)», que indicaba una «ligera» ecotoxicidad acuática. El GESAMP consideró que el uso de ese dictamen de expertos se justificaba en las circunstancias dadas.

5 Modelos de exposición ambiental para aplicación en el análisis de riesgos de alimentos marinos. El Grupo de Trabajo identificó tres riesgos intrínsecos para la salud pública relacionados con el consumo de pescados y mariscos producidos en aguas marinas, a saber, contaminantes químicos, patógenos microbianos y ficotoxinas marinas. El Grupo de Trabajo había decidido como primera prioridad centrarse en la elaboración y ensayo de modelos de evaluación de la exposición para sustancias químicas orgánicas. Los principales objetivos de esta labor eran identificar modelos de bioacumulación que pudieran ser útiles para predecir la inocuidad de los mariscos recogidos en una determinada masa acuática, examinar y evaluar esos modelos para su posible aplicación con respecto a agentes contaminantes que eran fuente de mayor preocupación, y realizar ensayos cuantitativos con estos modelos en cuanto a su capacidad para predecir los niveles de residuos en los tejidos sobre la base de las concentraciones de contaminantes en el medio (agua o sedimentos) y las variables fisiológicas pertinentes.

6 Identificación de cuestiones nuevas e incipientes en relación con la degradación del medio marino. El GESAMP tomó nota de las preocupaciones existentes acerca de la contaminación causada por el accidente del petrolero de Bahamas “Prestige”, que ahora yacía en el fondo del mar a una profundidad de más de 3 000 metros. En contra de las expectativas de que el petróleo se solidificaría a esa elevada presión y baja temperatura, los restos del naufragio seguían descargando combustible pesado en el medio marino profundo. El Grupo, al mismo tiempo que reconoció la existencia de diversos programas científicos sobre los efectos a largo plazo del petróleo descargado en el medio marino, observó que para responder a diversos interrogantes científicos aún faltaban investigaciones significativas sobre el comportamiento y los efectos del petróleo y otras sustancias descargadas en los océanos, particularmente a gran profundidad.

1 INTRODUCTION

1.1 The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) held its thirty-third session from 5 to 9 May 2003 at the Food and Agriculture Organization of the United Nations (FAO) Headquarters in Rome, Italy, under the Chair of Mr M. Huber. Mr R. Duce served as the Vice-Chairperson. On Monday, 5 May, the Members of GESAMP met for informal discussions, while the Intersecretariat held pre-session meetings together with the Chair and Vice-Chairperson.

Opening of the session

1.2 The Chairperson of GESAMP, Mr M. Huber, called the thirty-third full session of GESAMP to order at 09.30 a.m. on 6 May 2003.

1.3 Mr Ichiro Nomura, Assistant Director-General of the FAO Fisheries Department welcomed the participants to the FAO Headquarters on behalf of the host organization and indicated that this session was expected to generate important decisions and recommendations which would be significant for GESAMP's future.

1.4 Mr Nomura stated that FAO had always supported GESAMP and numerous Working Groups and continued to recognize GESAMP's outstanding role as an independent scientific advisory body in the UN System. GESAMP's good reputation and excellence was well known, as recently referred to during the twenty-fifth session of the FAO Committee on Fisheries. As in the past, the FAO's Fisheries Department would continue providing the necessary technical secretariat support to GESAMP and its Working Groups. FAO further offered the use of Community Directory Server software (CDS) in further developing GESAMP's website, a software which would provide a wide range of opportunities for enhanced interaction, communication and exchange, as successfully developed and used for the UN Atlas for the Oceans.

1.5 FAO supported GESAMP's scientific advisory role in the establishment of a regular global marine assessment process (GMA) by 2004 (UN Resolution A/RES/57/141) and would also actively contribute to the GMA process itself, i.e. on the world's fisheries and aquaculture, with particular emphasis on fisheries resources, their status, trends and outlook.

1.6 Whilst noting that the establishment of a regular GMA process would involve significant challenges and required substantial additional commitments by all collaborating agencies and institutions, FAO recommended that existing mechanisms and frameworks be used and that no new structures be established. Instead, the task of the GMA process should be accomplished through better and more effective collaboration among UN Agencies concerned.

1.7 In conclusion, Mr Nomura expressed his wish for a successful session, one that would present a strong signal in favour of good and effective inter-agency collaboration, including clear indications of the level of commitment of each of the Sponsoring Agencies of GESAMP on the following issues:

- support for GESAMP's future;
- support for GESAMP's role in the GMA process; and

- report to the GMA on relevant sectoral issues under the remit of each Agency.

Adoption of the Agenda

1.8 The agenda for the session as adopted is provided in Annex I to this report. Annexes II and III provide, respectively, the list of documents and the list of participants.

2 REPORT OF THE ADMINISTRATIVE SECRETARY

2.1 Mr Koji Sekimizu, the Administrative Secretary of GESAMP, recalled that 2002 had been an important year as outlined below.

2.2 The World Summit on Sustainable Development (WSSD) Plan of Implementation had set important targets for interagency co-operation by endorsing (Paragraph 36b) the establishment by 2004 of a regular process under the United Nations for Global Reporting and Assessment of the State of the Marine Environment (GMA), including socio-economic aspects, both current and foreseeable, building on existing regional assessments. This initiative was subsequently confirmed by UN Resolution A/RES/57/141, paragraph 45.

2.3 This year also marked the twentieth anniversary of the adoption of the UN Convention of the Law of the Sea, which had been commemorated at a special session during the 57th UN General Assembly in December 2002 with participation of the Chairperson of GESAMP.

2.4 The Administrative Secretary also informed the meeting of the following developments in the Sponsoring Agencies during the last intersessional period.

2.5 IMO and its Marine Environment Protection Committee (MEPC) had continued working on the draft IMO Convention for the Control and Management of Ships' Ballast Water and Sediments. All outstanding issues should be resolved at the 49th session of MEPC (July 2003) where the draft Convention should be approved for consideration at the Diplomatic Conference on Ballast Water Management to be held in February 2004.

2.6 The sinking of the Bahamian tanker "Prestige" near the Spanish coast in November 2002 causing a continuous release of heavy fuel oil had not only resulted in major impacts on fisheries and tourism in north-western Spain and in France, but also in unilateral action to accelerate the phasing out the use of single hull oil tankers in European waters by 2010. At the recommendation of IMO, the 15 Member States of the European Union had recently submitted proposals to IMO for amending the global MARPOL 73/78 Convention in this regard, which would be considered at the forty-ninth session of MEPC in July 2003 and which, if accepted, would be formally adopted at a special session of that Committee in December 2003.

2.7 In this context several non-Governmental Organizations had contacted the UN Secretary-General, Mr Kofi Annan, to establish an interagency taskforce on sub-standard shipping/flags of convenience. This issue would be discussed at an informal UN meeting in Paris (France), on 7 May 2003, with the participation of the UN Technical Secretary of GESAMP.

2.8 Guidelines for recycling of vessels were being developed for adoption at the IMO Assembly in November 2003. Under these guidelines a so-called “Green Passport” should be issued. This document would contain an inventory of all materials, potentially hazardous to human health or the environment used in the construction of the ship, and accompany the vessel throughout its working life.

2.9 The GEF/World Bank/IMO project for a “Marine Electronic Highway” was currently being implemented in the Malacca Straits which is aimed at improved safety of navigation and environmental management in these waters comparable with transport in the air.

2.10 In February 2003, the FAO Committee on Fisheries adopted the “Strategy for Improving Information on Status and Trends of Capture Fisheries” thereby contributing to FAO priorities under the WSSD Plan of Implementation.

2.11 FAO was developing methodologies, tools and guidance for the implementation of the “Code of Conduct for Responsible Fisheries” established in 1995.

2.12 FAO continued its work on various “International Plans of Action”, i.e.,

- to prevent, deter and eliminate Illegal, Unreported and Unregulated Fishing (IPOA IUU Fishing);
- for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA Seabirds);
- for the Conservation and Management of Sharks (IPOA Sharks);
- for the Management of Fishing Capacity (IPOA Capacity).

2.13 An FAO Expert Consultation on Ecosystem-based Fisheries Management was held in Reykjavik (Iceland) in September 2002 where preliminary guidelines were developed for an Ecosystem Approach to Fisheries (EAF).

2.14 FAO continued to work under partnership arrangements in fisheries to ensure the effective implementation of the targets set in the WSSD Plan of Implementation in that priority area of the organization. These included among others:

- the UN Atlas of the Oceans;
- the Fisheries Resources Monitoring System (FIRMS); and
- the Support Unit for International Fisheries and Aquatic Research (SIFAR).

2.15 The FAO Fisheries Department co-operated with the CITES Secretariat on CITES provisions related to commercially exploited aquatic species and continued to work on an FAO-CITES Secretariat MoU and related issues.

3. REPORT OF THE CHAIRPERSON OF GESAMP

3.1 The Chairperson, Mr M. Huber, informed the members of the activities of the Chairperson and the Vice-Chairperson, Mr R. Duce, during the intersessional period. To keep the membership of GESAMP aware of the activities taking place during this period, two intersessional reports were sent to the Members. These reports provided updates on

developments regarding the GESAMP Strategic Plan and the Global Marine Assessment (GMA), and other activities of the officers and working groups during the intersessional period. The Chair participated in two meetings on behalf of GESAMP during the intersessional period: the fifth meeting of the GIWA Steering Group (8-9 October 2002, Kalmar, Sweden) and the special session on Oceans and Law of the Sea at the fifty-seventh UN General Assembly (8-9 December 2002, New York, USA).

3.2 Two papers concerning GESAMP activities have been published in the peer-reviewed literature during the intersessional period. These are:

Wells, P.G., R.A. Duce & M.E. Huber, 2002. Caring for the sea – accomplishments, activities and future of the United Nations GESAMP (the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection). *Ocean & Coastal Management* **45**:77-89.

The Chairperson thanked Mr Wells for providing reprints of this paper to the meeting.

Huber, M.E., R.A. Duce, J.M. Bowers, D. Insull, L. Jetic & S. Keckes, 2002. Priority problems facing the global marine and coastal environment and recommended approaches for their solution. *Oceans & Coastal Management* **46**:479-485.

This publication arose from Rep. Studies GESAMP no. 70 and is identified as being published on behalf of GESAMP.

3.3 In April 2002 the Chair contacted the Executive Secretary of the Convention on Biological Diversity to open a dialogue on areas of potential mutual interest and co-operation with regard to the GMA, and potentially other matters. The Chair contacted several other persons during the intersessional period on matters to be covered under agenda items.

4. FUTURE OF GESAMP: COMPLETION OF THE STRATEGIC PLAN

4.1 The UN Commission on Sustainable Development (CSD) at its fourth (1996) and seventh (1999) sessions recognised GESAMP as a "source of agreed, independent scientific advice", but invited GESAMP's Sponsoring Agencies to review the Group "with a view to improving its effectiveness and comprehensiveness" and "establishing a means for GESAMP to interact with scientific representatives of Governments and major groups." In 2000 the Sponsoring Agencies of GESAMP commissioned an independent review to evaluate whether GESAMP should be continued, and if so, how GESAMP might be improved in the future. This independent review, completed in 2001, strongly recommended that GESAMP should be continued. It also recommended sweeping changes in GESAMP's *modus operandi*, products, and product delivery, concluding that such changes "would result in GESAMP becoming the world's first choice for marine environment protection advice and guidance."

4.2 In response to this independent review, a draft Strategic Plan to implement the recommendations of the review was developed by a consultant through extensive discussion within and among GESAMP's Sponsoring Agencies, members, and other interested parties. The GESAMP Mission Statement as indicated in the draft Strategic Plan is as follows:

"To provide authoritative, independent, interdisciplinary scientific advice to organizations and governments to support the protection and sustainable use of the marine environment."

4.3 In fulfilment of its mission GESAMP has the following functions:

In response to requests, to:

- integrate and synthesise the results of regional and thematic assessments and scientific studies to support global assessments of the marine environment;
- provide scientific and technical guidance on the design and execution of marine environmental assessments;
- provide scientific reviews, analyses, and advice on specific topics relevant to the condition of the marine environment, its investigation, protection, and/or management.

On a regular basis, to:

- provide an overview of the marine environmental monitoring, assessment, and related activities of UN agencies and advise on how these activities might be improved and better integrated and coordinated;
- identify new and emerging issues regarding the degradation of the marine environment that are of relevance to governments and sponsoring organizations.

4.4 A summary of the draft Strategic Plan is presented in Annex IV. The Strategic Plan consists of three major sections - an introduction, a section on the strategic approach to a revitalized GESAMP, and a final section on a conceptual framework for the future GESAMP. The draft plan also includes several annexes, which cover a range of operational matters, financial issues, and examples of future project activities. It also includes a GESAMP Strategy Matrix, which outlines a series of issues identified by CSD for improvement, with clear goals and strategies to attain those improvements.

4.5 The draft Strategic Plan was discussed extensively by GESAMP, and a number of issues were discussed. Among the major topics developed in the Strategic Plan were the following:

- the nomination of experts to a GESAMP pool by governments, regional organizations, scientific bodies, and other groups in addition to the UN Sponsoring Agencies;
- mechanisms for the participation of all pool experts in GESAMP activities;
- mechanisms for Governments and major groups to propose and sponsor GESAMP projects;
- regular consultation with users in the design and conduct of GESAMP activities;
- the separation of scientific and policy advisory processes through a multi-tiered approach.
- the development of a GESAMP Office to more effectively and efficiently coordinate GESAMP's activities and products;
- a clear indication of the range and types of GESAMP's products;

- processes for making GESAMP's products more timely, user friendly, and relevant.

4.6 It was confirmed that at least six Sponsoring Agencies are strongly committed to the future of GESAMP. It was also agreed that GESAMP will continue to undertake marine assessment activities.

4.7 The draft report indicated a number of areas where input from GESAMP and its Sponsoring Agencies was needed. Each of these was discussed in some detail, and appropriate advice provided. The new Strategic Plan clearly will require additional resources for its implementation. Possible sources of support were discussed, including reallocation of resources from current supporting agencies, raising of extra-budgetary funds, bringing in new supporting agencies and/or external groups, and the formation of a trust fund for the future development of GESAMP. While no formal decisions were made in this area, each Sponsoring Agency was encouraged to look carefully at the possibility of increasing its current level of support to GESAMP, and several agencies indicated that they would be able to do that.

4.8 It was agreed that the consultant would modify the draft Strategic Plan in light of the comments and suggestions of GESAMP and the Sponsoring Agencies, submitting a final draft of the Strategic Plan to GESAMP and the Sponsoring Agencies within two months. This draft would then be considered by the GESAMP Intersecretariat, and if approved, each agency would be invited formally to clear the Strategic Plan.

4.9 GESAMP and its Sponsoring Agencies are committed to implementing the new Strategic Plan as soon as possible. The Sponsoring Agencies have agreed to initiate the development of the GESAMP pool of experts and to take concrete steps to establish the GESAMP Office. In that context, GESAMP noted the offer of IAEA to host a self-funded GESAMP Office at its Marine Environment Laboratory in Monaco. FAO did offer to improve GESAMP's website. UN/DOALOS offered staff for research and to pursue funding opportunities. IMO will increase its budget allocation for GESAMP activities. All these commitments were highly appreciated.

5. CONTRIBUTION TO THE ESTABLISHMENT OF A REGULAR GLOBAL MARINE ASSESSMENT PROCESS BY 2004 (UNGA Resolution A/RES/57/141)

5.1 GESAMP took note of the letter from UN/DOALOS to the Chair inviting proposals for modalities for a Global Marine Assessment, as requested in UN General Assembly resolution A/RES/57/141, paragraph 45. GESAMP agreed to propose that it be involved in a significant way in the GMA process. It was pointed out that the Strategic Plan and GESAMP's potential activities in the process were intimately related, and that the two documents should be consistent. After an extensive discussion, the experts prepared a reply, both proposing a modality for the GMA and suggesting how GESAMP could contribute to the process.

5.2 It was envisaged that the GMA Process would comprise three phases:

- Design/Stakeholder Engagement Phase
- Regional Phase

- Global Phase

With its scientific expertise and long-standing experience in marine environmental assessments, GESAMP was eminently well qualified for a leadership role in the global scientific panel for the GMA. It could contribute to designing the scientific aspects of the assessment in Phase 1 and to the synthesis of the regional and sectoral assessments into the global scientific assessment in Phase 3. Furthermore, the GESAMP pool of experts could provide specialist expertise in specific sectoral and technical issues. GESAMP believes that it should also be involved at other levels of the GMA to ensure the necessary linkage to the process as a whole. On the other hand, it would not be appropriate for GESAMP to be directly involved in regional assessments, capacity-building or policy analysis, except in order to provide information or advice on request. In the opinion of the GESAMP experts, although the initial GMA will reveal gaps and inconsistencies, one of its most important functions could be to lead to capacity-building in national and regional assessments where an analysis of the initial results exposes a need for improvement and enhanced co-operation. In this way the GMA could lead the way to increased collaboration and improved oceans governance.

5.3 Copies of the letter from DOALOS and of the Chair's reply are attached in Annex V.

6 EVALUATION OF HAZARDS OF HARMFUL SUBSTANCES CARRIED BY SHIPS

Progress in the 2002-2003 intersessional period and at the 39th session of Working Group 1 (EHS)

6.1 The thirty-ninth session of the GESAMP Working Group on the Evaluation of Hazards of Substances carried by ships (EHS) was held from 28 April to 2 May 2003 at IMO Headquarters in London. The currently eight members of the Working Group, with backgrounds in ecotoxicology, environmental chemistry, occupational safety, mammalian toxicology and behaviour of chemicals in seawater, had been drawn from Japan, United States and Europe. The main work item considered by EHS was the re-evaluation of the hazards of the substances listed in the International Bulk Chemicals (IBC) Code, as requested by IMO in 1998, in particular the completion of a 'first pass' through this list. This activity is in support of the revision by IMO of Annex II to the MARPOL 73/78 Convention.

6.2 A total of 680 substances listed in the IBC Code have now been evaluated. The Working Group agreed that it was now essential to begin the process of consolidating the hazard profiles for the 15 major groups of compounds in that Code. This would serve to ensure accuracy and correct any errors, ensuring a level playing field for manufacturers and shippers. This was considered as the most critical part of the revision process, demanding extensive preparation in advance of meetings by the members. The Group considered that at least one full EHS meeting and an intersessional meeting of each of the three EHS sub-groups¹ would be needed to complete the consolidation process.

6.3 Some 90 of the 680 IBC Code substances do not contain sufficient data for IMO to assign pollution categories (this number may improve following the thirty-ninth session of EHS and the consolidation process described above). The Working Group, through IMO, had called on industry to provide the necessary data on many occasions. Having searched all of

¹ Sub-groups are established on (1) Eco-toxicology, (2) Mammalian toxicology and human health, and on (3) Physical-chemical properties.

the considerable data sources available to it, the Working Group concluded that further data searches would not be worthwhile.

6.4 GESAMP took note of the progress achieved with revising the IBC Code substances.

Specific issues of concern to Working Group 1 (EHS)

Future role of EHS in providing advice to IMO.

6.5 With the completion of work on Annex II to the MARPOL 73/78 Convention originally expected in 2002, IMO's Marine Environment Protection Committee (MEPC), at its forty-seventh meeting, had requested the Working Group to give an indication of the role that it could fulfil in the future. Part of the concern expressed by MEPC was related to the future evaluation of packaged goods under the Globally Harmonized System (GHS) for chemical hazard classification. Following discussion at the thirty-eighth session of EHS, in 2002, the secretary of the Working Group informed MEPC through a short submission to its forty-eighth meeting. MEPC felt unable to discuss this submission as written and requested the secretariat to resubmit a short list of activities for consideration one by one at its forty-ninth meeting (July 2003). They include:

- Continued evaluation of new bulk liquid chemical substances entering the IBC Code.
- Upon request of the IMO Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC), the GHS Sub-committee, shippers or, in particular, manufacturers to evaluate chemicals for transport as packaged goods, bearing in mind that the GHS is intended as a self-classification system and that the continuation of work previously carried out by EHS on chemicals carried as packaged goods, seems uncertain. Nevertheless at the thirty-eighth meeting of EHS, a special request from manufacturers to evaluate two such chemicals was received.
- Evaluation of the hazards associated with the proposed use of ballast water biocides, as discussed at GESAMP XXXII.
- Provision of advice on the hazards of anti-fouling biocides.

6.6 GESAMP took note of the future work programme of Working Group 1 (EHS) and requested it to report to the next session on the response received from MEPC.

Completion of the hazard evaluation of vegetable oils

6.7 Approximately 30 million tonnes of vegetable, animal, and fish oils are transported annually in bulk by sea. On repeated occasions since 1996, IMO had requested the industry organizations responsible for producing and shipping this range of oils to discuss appropriate hazard groupings with EHS and to provide the data necessary for a complete hazard evaluation. IMO urgently needed revised GESAMP hazard profiles of 19 vegetable, animal and fish oils in order to assign provisional pollution categories as part of its revision of Annex II to the MARPOL 73/78 Convention.

6.8 Despite the fact that many of these oils are destined for human consumption, the few aquatic toxicity studies available show that not all are 'non-toxic' to the aquatic environment

as claimed. The potential for environmental hazard may vary with the type of oil, country of origin, type of processing and from batch to batch (content of free fatty acids and other low molecular weight impurities). An initial industry sponsored programme of ecotoxicity screening tests on six model oils, at one high concentration (1000mg/L) has confirmed this problem.

6.9 To date, Working Group 1 (EHS) has completed 6 of the 19 products on the basis of the available test data. As further information from industry has not been forthcoming, IMO has requested the Working Group to complete the missing column B1 (acute aquatic toxicity) and E2 (physical-chemical behaviour) information on the basis of expert judgement, while applying a precautionary approach.

6.10 The Working Group proposed to give all 13 products a precautionary rating of '(2)' in brackets (see GESAMP Reports & Studies No. 64, Section 3.10, on "rating notation and confidence in the supporting data"), indicating 'slight' aquatic ecotoxicity in Column B1. Column E2 has already been completed from literature data.

6.11 In response to the suggestion made by Working Group 1 (EHS), GESAMP considered that the use of expert judgement was justified in the circumstances described by the Working Group.

Globally Harmonized System issues

6.12 IMO had requested the Working Group on a number of occasions to monitor the work of the UN Sub-committee for the Globally Harmonized System on chemical hazard classification (packaged goods). Consequently, the Working Group proposed to inform the GHS Sub-committee of its activities in a short submission, accompanied by GESAMP Reports & Studies No. 64 and the list of 680 consolidated bulk liquid hazard profiles when complete. As EHS was the first chemical hazard evaluation group which had adopted the GHS system in its working methods, with nearly five years of experience in evaluating products, it proposed (in discussion with OECD) to submit a list of its technical findings in order to highlight and seek solutions to some of the problems encountered.

6.13 GESAMP encouraged the Working Group to maintain such contacts with the GHS Sub-committee and the OECD on a regular basis.

Remuneration of EHS Working Group members

6.14 The members of Working Group 1 (EHS) expressed their concern at the increasing personal cost of membership of EHS, and indicated that the process of consolidating groups of substances would take even more preparation than the evaluation of single substances conducted thus far. No recompense was made for this time spent outside of meetings and even normal expenses such as subscriptions to on-line databases were not covered.

6.15 GESAMP noted these concerns and also the suggestion that in other parts of the industry it was accepted practice to conduct hazard evaluations on the basis of fees charged to the industry concerned.

7 ENVIRONMENTAL RISK ASSESSMENT AND COMMUNICATION IN COASTAL AQUACULTURE

7.1 The FAO Technical Secretary of GESAMP informed the Group about recent efforts related to GESAMP Working Group 31 on Environmental Impacts of Coastal Aquaculture, and presented a progress report on behalf of Mr H. Rosenthal, Chairperson of this Working Group.

7.2 Following consultations with Mr Hambrey, the former Chairman of WG 31, the FAO Technical Secretary had distributed the Background and Discussion Paper on Environmental Risk Assessment and Communication in Coastal Aquaculture² to some 70 experts in the field of environmental risk assessment and coastal aquaculture with a view to inviting comments, suggestions, and contributions to this document. The Chair of the ICES Working Group on Environmental Interactions of Mariculture (WGEIM) was also approached. The experts were also invited to provide views and expressions of interest with regard to their possible involvement and participation in collaborating and contributing to a GESAMP Working Group effort in the specific area of environmental risk assessment and communication in coastal aquaculture. Very valuable, constructive and detailed comments and suggestions were received.

7.3 As discussed and agreed during the thirty-second session of GESAMP, there is good opportunity for collaboration between this GESAMP Working Group and the ICES WGEIM. Mr Rosenthal participated in the recent meeting of the ICES WGEIM, held in Vigo, Spain. Mr Rosenthal, Mr E. Black, Chair of WGEIM, and Mr I. Davies have had fruitful discussions on the scope of the GESAMP initiative and on opportunities for exchange and collaboration between the two expert groups. The experts considered that the present document does contain very valuable basic information that is perfectly suited to serve as a starting point and a sound discussion base for a comprehensive review of methodologies applicable to risk assessment in aquaculture. However, there is a need to expand several sections of the report and also to consolidate/streamline the material presented in other sections. Two specific needs were identified:

- to involve experts familiar with investment risk assessment and with ecological modelling; and
- to develop further a practical structure of the document providing a broader and direct guideline for application by a wider clientele. This should be particularly valuable for developing countries as in many cases there will not be the capital to employ expensive consultants to perform an elaborated risk assessment procedure.

7.4 It was felt that the multidisciplinary and complexity of the subjects to be covered would certainly require good preparation and sufficient lead time to work effectively toward an expert workshop of the GESAMP Working Group. The consultations in Vigo also generated a tentative time plan for the Working Group's activities:

² Hambrey, J. and T. Southall, 2002. Environmental risk assessment and communication in coastal aquaculture: A background and discussion paper for GESAMP Working Group 31 on Environmental Impacts of Coastal Aquaculture. 71 p. A Summary paper of this document was also presented to the 32nd Session of GESAMP as GESAMP XXXII/6.

- A three-day preparatory/editorial committee meeting to be held near the end of the year 2003.
- A four-day expert workshop with about 15 experts from various fields participating. The expert workshop will be arranged in conjunction with the next session of the ICES WGEIM which will make effective use of the ICES Working Group expertise. The Chair of WGEIM has already agreed to Mr Rosenthal's proposal to place a recommendation to the ICES Council to ask to expand the WGEIM Working Group meeting in 2004 by one day in order to accommodate the joint session with GESAMP WG 31. It is anticipated that the ICES WGEIM will likely meet end of March 2004.
- A three-day final editorial committee meeting two months after the Expert Workshop in order to incorporate expert comments, corrections and expansion/adjustments while finalizing the document for possible publication.

7.5 The Group welcomed Mr Rosenthal as a new GESAMP member and commended his efforts of continuing the dialogue with the ICES WGEIM. The Group welcomed the opportunity for exchange and collaboration with ICES. With regard to the time plan presented, the Group recommended that adequate time be allocated after the envisaged workshop for the required peer review of the Working Group's draft report.

8 ESTIMATES OF OIL ENTERING THE MARINE ENVIRONMENT FROM SEA-BASED ACTIVITIES

8.1 The IMO Technical Secretary informed the Group of the progress towards the completion of the report on Estimates of Oil Entering the Marine Environment from Sea-based Activities (Working Group 32). GESAMP had reviewed progress reports at its thirty-first (GESAMP XXXI/9) and thirty-second sessions (GESAMP XXXII/5). With extra effort in February 2003 on the part of the Chairperson of Working Group 32 and main author of this report, Mr Wells, the members of the Working Group and with the support of IMO, the manuscript for the report had recently been completed for external review.

8.2 GESAMP noted the time schedule towards completion of this report by the end of 2003 / early 2004 and that the steps listed in this schedule took into account the approval process agreed at GESAMP XXXI and XXXII.

8.3 GESAMP agreed that the report would be considered intersessionally for approval and eventual publication as Reports and Studies, GESAMP No. 75. This item would not be on the agenda for the next session.

8.4 The Group expressed concern about the slow completion of this report and considered what safeguards should be in place to avoid re-occurrence of these situations. Better planning and work management were part of the answer, while approval of reports in the intersessional periods would give more flexibility.

9 ENVIRONMENTAL EXPOSURE MODELS FOR APPLICATION IN SEAFOOD RISK ANALYSIS

9.1 The FAO Technical Secretary of GESAMP introduced the status of Working Group 33. He thanked Mr D. Weston for his efforts as Chairperson and his continued participation in the Working Group. He welcomed Mr F. Gobas as Chair of the Working Group.

9.2 Mr Gobas presented a progress report of the activities of his Working Group. He explained that GESAMP XXXI established Working Group 33 with the expectation that it “will assess the feasibility of the development/adaptation and use of practical and cost-effective aquatic ecotoxicological and microbiological hazard/risk assessment methods for application in seafood safety risk assessment and management”. The Working Group began its efforts with a meeting held at FAO Headquarters in Rome, 10-14 December 2001, to examine the critical issues within GESAMP’s general mandate for the Working Group, and to better define the scope of the Group’s activities.

9.3 The Working Group identified three inherent risks to public health through consumption of seafood produced in marine waters, and for which that risk could potentially be mitigated by application of environmental exposure models:

- chemical contaminants (e.g., pesticides, heavy metals);
- microbial pathogens (e.g., bacteria, viruses); and
- marine phycotoxins (e.g., paralytic shellfish toxin).

The Group believed that while all these potentially toxic agents merit attention, it is not feasible for the Working Group to address all these risks simultaneously, and that a phased approach would be necessary. It was decided that environmental exposure models were best developed in the area of chemical contaminants and that this topic area would be the Working Group’s first priority.

9.4 The Working Group decided to focus its efforts on the development and testing of exposure assessment models for organic chemicals. The main objectives of this work are to:

- identify bioaccumulation models which could be useful in predicting the safety of seafood harvested from a given water body;
- review and evaluate these models for potential application with regard to contaminants of greatest concern in seafood and to the major seafood commodities, either cultured or wild-caught;
- quantitatively test these models as to their ability to predict tissue residue levels based on environmental (i.e., water or sediment) contaminant concentrations and relevant physiological variables.

9.5 With regard to the first objective, considerable progress was made. Several models were identified. In addition, several publications have appeared in the literature which summarize and evaluate various techniques and models that are available. Currently, the Working Group is evaluating and discussing various approaches with the goal to identify a limited number of methods that will be further tested and examined. Following this

evaluation, a short report will be prepared to document the rationale for selecting certain model(s) for review and evaluation.

9.6 With regard to the second objective, the Working Group can benefit from the work that has been done in Canada and some other countries on the development of methods to assess industrial chemicals for Persistence (P) Bioaccumulation (B) and Toxicity (T). It is expected that after models have been selected, these reports and related publications can be used to develop an overview and examination of methods for potential application with regard to contaminants of greatest concern in seafood.

9.7 The third task is believed to be the most substantial in size and scope as it will involve new work. It involves testing the models against empirical data sets. One of the goals of this exercise is to include several classes of contaminants, geographical areas, environmental conditions and species. As part of this component, a data inventory will be established. This inventory will then be analyzed by the Working Group to identify the most relevant data bases that should be used for the model testing and analysis. After an appropriate data base has been established, the models will be tested and evaluated. The output of the model analysis and testing will be reported. This report will be the basis for discussions at a Working Group meeting. This meeting will make recommendations to GESAMP regarding the feasibility of predicting tissue contaminant concentrations from ambient contaminant concentrations. It is expected that the Working Group meeting will be held in 2004 with a final report to follow shortly thereafter.

10 CONTRIBUTION TO THE UNEP/GEF/GIWA PROJECT

10.1 The Group noted the Chairperson's participation in the fifth meeting of the GIWA Steering Group, and that GIWA had invited GESAMP to assist in the peer review of 15 sub-regional assessment reports. GESAMP expressed interest in this collaboration with GIWA, and enquired which sub-regional reports were involved. GESAMP awaits further information and continues to look forward to collaboration with GIWA.

11 ADVICE ON BALLAST WATER MANAGEMENT

11.1 GESAMP, at its thirty-second session, reviewed and adopted the Report of the Correspondence Group on the Treatment and Management of Ships' Ballast Water to Control Introductions of Non-Indigenous Species, prepared under the lead of Mr R. Boelens. In that report various aspects of ballast water management had been identified and a recommendation was given on each of these aspects.

11.2 The IMO Technical Secretary informed the Group that the report of the Correspondence Group had been submitted to the forty-eighth session of the IMO Marine Environment Protection Committee (October 2002) and considered in the context of the continuing development of the draft IMO Convention for the Control and Management of Ships' Ballast Water and Sediments. The Report had been well received and several issues GESAMP had raised were taken into account when the last version of the draft Convention was developed.

11.3 GESAMP had indicated its willingness to assist MEPC in drafting suitable criteria and protocols governing the potential use of biocides to treat ballast water on board of ships. MEPC had not yet considered a concrete request to GESAMP for advice in this regard, but if the prospect of using biocides for ballast water management gained more prominence and the need for criteria and protocols had been acknowledged, such a request might be made in the future.

11.4 GESAMP noted that one of the aims of the draft IMO Ballast Water Convention and the ballast water performance standards contained therein was to stimulate the development of ballast water treatment techniques. The role which biocides might take in ballast water treatment was unclear and, therefore, it could not be confirmed whether or not MEPC would turn to GESAMP for advice in this regard.

12 IDENTIFICATION OF NEW AND EMERGING ISSUES REGARDING THE DEGRADATION OF THE MARINE ENVIRONMENT OF RELEVANCE TO GOVERNMENTS AND SPONSORING ORGANIZATIONS

The accident of the Bahamian tanker “Prestige”

12.1 GESAMP noted the current concerns about the pollution caused by the accident of the Bahamian tanker "Prestige", which now lies on the seabed at a water depth greater than 3000 metres. Contrary to expectations that the oil would solidify at that high pressure and low temperature, the wreck is still releasing heavy fuel to the deep marine environment. The pollution is affecting the marine ecosystem, including hundreds of kilometres of coastline, with an impact on fisheries, tourism and other economic activities.

12.2 GESAMP considered it appropriate to contribute towards the prevention and remediation of the consequences of this type of accidents. Possible actions considered included, amongst others, the creation of a working group that could review and synthesize available information on the impact of accidents of this type and related remediation experiences.

12.3 The Group recognized the existence of various scientific programmes on long-term effects of oil released to the marine environment through ship accidents and recent regimes for emergency response. The Group further noted that a series of scientific questions await major research on behaviour and impact of oil and other substances released in the oceans, particularly at great depths.

12.4 GESAMP recognized the need for a mechanism to respond quickly to major events and noted that provisions to that end were included in the Strategic Plan.

13 FUTURE WORK PROGRAMME

Intersessional work

13.1 GESAMP noted that the following intersessional work was planned:

1. **Evaluation of hazards of harmful substances carried by ships - EHS**
(Working Group 1)

Lead Agency: IMO
 Chairperson: T. Bowmer
 Members: T. Höfer, D. James, M. Marchand, M. Morrissette, F. Pedersen,
 T. Syversen, M. Wakabayashi, J. Crayford, N. Soutar

The Working Group will consolidate the hazard profiles for 15 major groups of compounds. The fortieth session of the Working Group will be held 19-23 April 2004 at IMO Headquarters.

2. **Environmental impacts of coastal aquaculture**
(Working Group 31)

Lead Agency: ` FAO
 (in co-operation with ICES)
 Chairperson: H. Rosenthal
 Members: J. Hambrey, E. Black (chair, ICES WG-EIM), I. Davies
 (member, ICES WG-EIM)

A preparatory meeting of the Working Group will be held late 2003. A workshop of the Working Group is planned in conjunction with the next session of the ICES Working Group on Environmental Interactions of Mariculture in March 2004.

3. **Estimates of oil entering the marine environment from sea-based activities**
(Working Group 32)

Lead Agency: IMO
 Co-sponsor: UNESCO-IOC
 Chairperson: P. Wells
 Members: J. Campbell, P. Johnston, F. Molloy, D. Etkin, T. Wilkins

The work of the Working Group will continue by correspondence / E-mail. The report will be reviewed externally between May and July 2003, and will be distributed to GESAMP members for final review. Editing, printing and distribution of the report is expected to be completed by February 2004.

4. **Environmental exposure models for application in seafood risk analysis**
(Working Group 33)

Lead Agency: FAO
 (in co-operation with ICES)
 Co-sponsor: UNESCO-IOC
 Chairperson: F. Gobas
 Members: R. Blust, R. Cormier, P. Dalgaard, A. DePaola, J.M. Fremy,
 P. Hernandez, B. Jansson (ICES nominee), C. Karman,
 T. Vermeire, D. Weston , W. Wosniok (ICES nominee)

The Working Group will establish data inventories and test and evaluate the models. The Working Group will meet in 2004.

14 ANY OTHER BUSINESS

Use of science in marine environmental policy-making processes.

14.1 The Group recalled that at its thirty-second session GESAMP had been informed of a Ph.D. dissertation by Ms Shelley Lexmond on the use of scientific information in marine environmental policy-making processes, with specific reference to the effects of land-based activities on coastal environments. GESAMP noted that the dissertation, which has now been accepted, identifies a lack of understanding of science among policy-makers as a significant barrier to the formulation of effective policies. The Group also noted that Ms Lexmond's dissertation suggests several potential roles for GESAMP in addressing this situation. The Group proposed that these suggestions might be taken into consideration when finalizing the Strategic Plan.

GESAMP advice on “polluter-pays” principle

14.2 In response to a request from the Ministry of Environment in Nigeria for advice on the “polluter-pays” principle, which it might apply to compensation claims for oil spills in the river delta of the Niger, it was recalled that such advice had been prepared under auspices of GESAMP. GESAMP noted that some advice on the use of effluent charges and other economic instruments is provided in section 5.3.3 of Reports and Studies GESAMP No. 71.

2010 – The Global Biodiversity Challenge

14.3 The observer from UNEP-WCMC, Mr Tim Johnson, gave a presentation on the meeting “2010 – The Global Biodiversity Challenge”, which would be held from 21 to 23 May 2003 in London (United Kingdom). The meeting has the following objectives:

- understanding and measuring biodiversity loss, status and trends, current and projected rates, causes, impacts, and methods for measuring the rate of biodiversity loss;
- actions to reduce the rate of biodiversity loss.

14.4 The Group thanked Mr Johnson for his presentation. In response to a question, Mr Johnson mentioned that it was unlikely that practical mechanisms to monitor biodiversity loss would be developed at this meeting. Instead a framework might be developed for preparation of such mechanisms.

14.5 It was agreed that the Chairperson of GESAMP would respond positively to an invitation of the Secretariat of the Convention on Biological Diversity to attend this meeting and communicate that the IMO Technical Secretary would attend this meeting on behalf of GESAMP.

Invitations / attendance to forthcoming meetings

UNEP's GMA Meeting in the Hague.

14.6 The Group noted that UNEP on 9 May 2003 had invited the Chair of GESAMP to attend the informal UNEP Global Marine Assessment meeting to be held in the Hague (Netherlands) during 26-27 May 2003. The Group agreed that GESAMP should be represented at this meeting. Unfortunately the Chair will not be able to attend this meeting. The Group therefore agreed that Mr T. Bowmer will be attending this meeting on behalf of GESAMP.

Fourth Meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP)

14.7 GESAMP noted the importance of the forthcoming meeting of the Informal Consultative Process (ICP) which will take place during 2-6 June 2003 in New York (USA) at the UN. The Group agreed that the Chair should attend this meeting and give a presentation on GESAMP's achievements and future, the development of its Strategic Plan and its possible role in the establishment and conduct of the regular global marine environmental assessment (GMA) process.

"High Seas Biodiversity" Workshops in Cairns (Australia)

14.8 It was agreed that the Chairperson of GESAMP should attend the two following workshops which would be held from 16 to 20 June 2003 in Cairns (Australia):

- Workshop on the Governance of High Seas Biodiversity Conservation; and
- Workshop on Ecosystem Based Management (EBM) - "Beyond Biodiversity, Sustainable Management and Conservation of the Oceans using EBM".

15 DATE AND PLACE OF THE NEXT SESSION

15.1 GESAMP accepted the offer of UNESCO-IOC to host the thirty-fourth session of GESAMP at UNESCO Headquarters in Paris from 4 to 8 October 2004.

16 ELECTION OF CHAIRPERSONS

16.1. The Group unanimously re-elected Mr M. Huber as Chairperson and Mr R. Duce as Vice-Chairperson for the forthcoming intersessional period and the thirty-fourth session of GESAMP.

17 APPROVAL OF THE REPORT AND CLOSURE OF THE SESSION

17.1 The report of the thirty-third session of GESAMP was considered and approved by the Group on the last day of the session.

17.2 The Chairperson of GESAMP, Mr M. Huber, closed the thirty-third session of GESAMP on 9 May 2003 at 10.20 hrs.

Annex I

AGENDA

- 1 Adoption of the agenda
- 2 Report of the Administrative Secretary
- 3 Report of the Chairperson of GESAMP
- 4 Future of GESAMP: Completion of the “Strategic Plan”
- 5 Contribution to the establishment of a regular Global Marine Assessment Process by 2004 (UNGA Resolution A/RES/57/141)
- 6 Status reports concerning:
 - .1 Evaluation of the hazards of harmful substances carried by ships (WG 1)
 - .2 Initiative on environmental risk assessment and communication in coastal aquaculture (WG 31)
 - .3 Environmental exposure models for application in seafood risk analysis (WG 33)
 - .4 Towards completion of the report on estimates of oil entering the marine environment from sea-based activities (WG 32)
 - .5 Contribution to the UNEP/GEF/GIWA project
 - .6 Advice on ballast water management
- 7 Identification of new and emerging issues regarding the degradation of the marine environment of relevance to Governments and Sponsoring Organizations
- 8 Future work programme
- 9 Any other business
- 10 Date and place of next session
- 11 Election of Chairpersons
- 12 Report of GESAMP XXXIII

Annex II

LIST OF DOCUMENTS

GESAMP XXXIII/1	Admin. Secretary	Agenda
GESAMP XXXIII/4	M. Huber	The New GESAMP – Science to Support Ocean Sustainability
GESAMP XXXIII/5	GESAMP Chair	Contribution to the establishment of a regular Global Marine Assessment process by 2004 (UNGA Resolution A/RES/57/141) Draft response to UN DOALOS on GESAMP’s contribution to the GMA process
GESAMP XXXIII/6.1	IMO	GESAMP Working Group 1
GESAMP XXXIII/6.2	FAO	Environmental risk assessment and communication in coastal aquaculture: Progress report
GESAMP XXXIII/6.3	FAO	Environmental exposure models for application in seafood risk analysis: Status report
GESAMP XXXIII/6.4	IMO	Status report towards completion of the report on estimates of oil entering the marine environment from sea-based activities
GESAMP XXXIII/6.6	IMO	Status report concerning advice on ballast water management
GESAMP XXXIII/7.2	J.-A. Sanchez-Cabeza	The accident of the Prestige vessel
GESAMP XXXIII/Inf.1	Secretariat	List of Participants
GESAMP XXXIII/Inf.2	Secretariat	List of Documents

Annex III

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⁴ Attended Intersecretariat Meeting only

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Annex IV

THE NEW GESAMP
Science to Support Ocean Sustainability
Summary of a Strategic Plan for GESAMP

GESAMP⁵ is a group of experts that provides advice to the United Nations (UN) system on the scientific aspects of marine environmental protection. The need for GESAMP results from first the international policy requirement for a cross-sectoral, interdisciplinary, and science-based approach to marine environmental affairs, and second the practical need to foster coordination and cooperation among UN agencies with relevant responsibilities through a joint advisory mechanism.

GESAMP consists of 25-30 experts in a wide range of disciplines relevant to marine environmental protection, including social science and economics. Experts act in an individual capacity, not as representatives of their governments or institutions, ensuring the independence of GESAMP's advice. Individual studies and assessments are usually carried out by specialist working groups that also include experts who are not current members of GESAMP. This broadens the network of experts involved in GESAMP activities and provides for the tailoring of expertise to specific projects. From its establishment in 1969 to June 2003 GESAMP produced 43 in-depth technical studies, 4 broad assessments of the state of the global marine environment, and 33 reports of its meeting sessions.

GESAMP's mission is *"To provide authoritative, independent, interdisciplinary scientific advice to organizations and governments to support the protection and sustainable use of the marine environment."*

To fulfill its mission GESAMP will, in response to requests:

1. Integrate and synthesise the results of regional and thematic assessments and scientific studies to support global assessments of the marine environment;
2. Provide scientific and technical guidance on the design and execution of marine environmental assessments;
3. Provide scientific reviews, analyses, and advice on specific topics relevant to the condition of the marine environment, its investigation, protection, and/or management.

In addition GESAMP will regularly:

4. Provide an overview of the marine environmental monitoring, assessment, and related activities of UN agencies and advise on how these activities might be improved and better integrated and coordinated;
5. Identify new and emerging issues regarding the degradation of the marine environment that are of relevance to governments and sponsoring organizations.

In 2001 GESAMP's eight Sponsoring Agencies commissioned an independent review that concluded that GESAMP should be continued as an agreed source of independent scientific advice on marine environmental protection to the UN system. Responding to the recommendations of the review, GESAMP's Sponsoring Agencies have developed a proactive

⁵ IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection

strategic plan to update and improve GESAMP's organization, work methods, and management.

The overall objectives of the strategic plan are to:

- maintain and strengthen GESAMP's widely recognised scientific **credibility**;
- strengthen **engagement** both with the broader scientific community and with Governments and other major user groups to enhance the relevance and legitimacy of GESAMP's advice;
- ensure **professionalism** in work methods, management, and product delivery.

An important feature of the strategy is the establishment of a Pool of Experts from which members of GESAMP and its working groups will be selected. In addition to GESAMP's UN Sponsoring Agencies, governments, intergovernmental and regional organizations, scientific bodies, international NGO's, and other major groups may nominate experts to the Pool.

Access to a large pool of expertise will ensure GESAMP's inclusiveness and multi-disciplinarity, thereby maintaining its scientific credibility. Perhaps more importantly, the pool is an important mechanism to engage the broader global scientific community. Pool experts who are not current members of GESAMP and its working groups will be kept up to date on GESAMP's activities and products, and have opportunities to participate through, for example, peer review, issue identification, and contributing to *ad hoc* task teams. This will not only raise GESAMP's profile but also build capacity to participate, not only in GESAMP but in scientific advisory processes more broadly.

GESAMP will proactively seek partnerships with other major organizations and groups for projects and activities. Thus, governments, intergovernmental and regional organizations, scientific bodies, and international NGO's may propose and/or sponsor GESAMP projects. In addition, GESAMP will regularly report its findings and advice directly to intergovernmental fora including the United Nations Open-Ended Informal Consultative Process (ICP), Commission on Sustainable Development (CSD), and the governing bodies of its Sponsoring Agencies.

To ensure the relevance, or saliency, of GESAMP's advice, members of important user groups such as scientists, environmental management practitioners, and policy makers will be explicitly engaged at all phases of GESAMP projects, including their design and execution and the peer review of results. GESAMP products will be professionally edited and produced in appropriate formats to ensure their relevance and user-friendliness, and promoted and distributed so as to maximise their visibility and availability, and therefore their impact.

The results of GESAMP's major reviews, analyses, and assessments will continue to be published in the long-standing *GESAMP Reports and Studies* series, with improved production standards to make the reports more visible and user-friendly. Other GESAMP products will include:

- an *Annual Report of the Chair* on GESAMP's activities, conclusions, and recommendations; consensus statements on new and emerging issues and major events related to marine environmental protection;

- biennial overviews of the marine environmental assessment activities of the UN Sponsoring Agencies and other organizations; and
- an annual business report.

GESAMP's strategic plan provides mechanisms to foster professionalism, including effectiveness, efficiency, transparency, and accountability. All GESAMP activities will be managed on the basis of a two-year rolling work plan, updated annually. The work plan will not only ensure professional management of activities, it will assist in matching GESAMP's collective expertise to its work requirements, enhancing the scientific credibility of the products. At the outset of each individual project a brief will be prepared detailing the agreed budget, efficient and effective work methods including deadlines and milestones, and plans for the publication, distribution, and promotion of the resulting report and other outputs. The annual business report will include performance auditing of GESAMP activities against the work plan and project briefs.

A GESAMP Office is being established to provide a central focal point for GESAMP's interactions with Governments and other major groups as well as the professional, centralised management of GESAMP's Pool of Experts, activities, and finances. GESAMP's core activities will be financed from a Trust Fund, an initial budget estimate for which is USD 600 000 annually. Individual project activities will be financed from separate project budgets, which will vary according to project requirements.

Of particular interest to GESAMP's Sponsoring Agencies, their member Governments, and other stakeholders is GESAMP's role in marine environmental assessment, particularly in the establishment of the regular Global Marine Assessment (GMA) process by 2004 as called for in UN General Assembly resolution A/RES/57/141. GESAMP has considerable experience in assessing the state of the global marine environment, and is the only established mechanism for inter-agency scientific cooperation and coordination among UN organizations with responsibilities in marine environmental protection. GESAMP is therefore well-suited to take the lead in the global scientific panel in designing and synthesising the results of the GMA. GESAMP also believes that, to provide the necessary linkages with the overall process, it should be involved at other levels of the GMA, for example in regional assessments, capacity building, and policy review, but in an information exchange and support role rather than a leadership role.

Annex V

**GESAMP'S CONTRIBUTION TO THE REGULAR GLOBAL MARINE
ASSESSMENT PROCESS**
(UNGA Resolution A/RES/57/141)

Correspondence between UN DOALOS and GESAMP

1. Letter of 25 February 2003 from Ms A. de Marffy, Director, Division for Ocean Affairs and the Law of the Sea, United Nations, to Mr M. Huber, Chairman of GESAMP
2. Letter of 16 May 2003 from Mr M. Huber, Chairman of GESAMP to Ms A. de Marffy, Director, Division for Ocean Affairs and the Law of the Sea, United Nations



REFERENCE: GMA/1

25 February 2003

Dear Mr Huber,

On behalf of the Secretary-General, I have the honour to refer to General Assembly resolution A/RES/57/141, adopted on 12 December 2002, and would like to draw your attention to paragraph 45, which reads as follows:

“Decides to establish by 2004 a regular process under the United Nations for the global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments, and requests the Secretary-General, in close collaboration with Member States, relevant organizations and agencies and programmes of the United Nations system (United Nations Environment Programme, Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization, Food and Agriculture Organization of the United Nations, International Maritime Organization, World Health Organization, International Atomic Energy Agency, World Meteorological Organization and Secretariat of the Convention on Biological Diversity), other competent intergovernmental organizations and relevant non-governmental organizations, to prepare proposals on modalities for a regular process for the global reporting and assessment of the state of the marine environment, drawing, inter alia, upon the work of the United Nations Environment Programme pursuant to Governing Council decision 21/31, and taking into account the recently completed review by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, and to submit these proposals to the General Assembly at its fifty-eighth session for its consideration and decision, including on the convening of a possible intergovernmental meeting;”

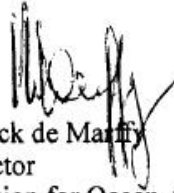
The decision of the General Assembly reflects the recommendation contained in paragraph 36(b) of the Plan of Implementation of the World Summit on Sustainable Development, adopted in Johannesburg in September 2002. It also responds to the need expressed at the third meeting of the Open-ended Informal Consultative Process on Oceans and the Law of the Sea for a global marine assessment mechanism that would enable policy makers and stakeholders to address the problems of the marine environment in a comprehensive, coherent and consistent manner.

Mr Mike Huber
 Chairman of GESAMP
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 32 Beneteau Place
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In response to the request of the General Assembly as an initial step, my Division is contacting Member States and all relevant organizations mentioned in the Assembly resolution in order to solicit proposals on modalities for regular process for the global reporting and assessment of the state of the marine environment, including socio-economic aspects. These proposals will be integrated and presented to the General Assembly at its fifty-eighth session for its consideration.

In order to allow for the timely preparation of necessary documentation and follow-up consultations, I would be grateful if you could send any proposals or comments you may have not later than 14 April 2003, preferably in electronic form to my e-mail address at <marffy@un.org>.

Yours sincerely,



Annick de Marffy
Director
Division for Ocean Affairs and the
Law of the Sea
Office of Legal Affairs

IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP

**JOINT GROUP OF EXPERTS ON THE SCIENTIFIC
ASPECTS OF MARINE ENVIRONMENTAL PROTECTION
(GESAMP)**

16 May 2003

Dear Ms de Marffy,

As I anticipated in my letter of 10 April 2003, GESAMP and its Intersecretariat have had wide-ranging discussions at our session in Rome, 5-9 May 2003, regarding the regular process of global marine assessment (GMA), and its relationship to GESAMP's draft Strategic Plan. It is my pleasure to inform you of the collective view of the GESAMP experts on these matters.

GESAMP is the only long-standing, inter-agency group providing advice on marine environmental assessment and protection to the UN system. Supported by eight UN bodies, GESAMP has extensive experience in assessment of the marine environment (enclosure 1), and this is central to its mission and functions (enclosure 2). GESAMP is thus ideally positioned to play a significant role in the GMA process.

GESAMP recognises that credibility, salience, and legitimacy are essential characteristics of effective assessments, and has drafted a Strategic Plan to restructure its membership, working practices, and activities in order to build upon its existing strengths in these areas. Notable elements of this strategy include:

- The nomination of experts to a GESAMP pool by Governments, regional organizations, scientific bodies, and other groups as well as the UN Sponsoring Organizations;
- Mechanisms for these groups to propose and sponsor GESAMP projects;
- Mechanisms for all pool experts to participate in GESAMP activities;
- Regular consultation with users in the design and execution of GESAMP activities;
- Measures to ensure the user-friendliness and visibility of GESAMP's reporting processes; and
- The separation of scientific and policy advisory processes in an approach that parallels the "two-tiered" approach described in paragraph 57 of the report of the Bremen workshop on the GMA.

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The approach to the GMA process embodied in Figure 1, Annex 10, of the Bremen workshop report involves three stages:

- I. Design/Stakeholder Engagement Phase
- II. Regional Phase
- III. Global Phase

GESAMP generally agrees with this approach and has developed a modified flowchart to indicate our view of how GESAMP might best participate, and also to express our suggestions for further developing the process (enclosure 3; the ovals indicate potential GESAMP contributions).

As enclosures 1 and 2 demonstrate, GESAMP is particularly well-suited for a leadership role in the Global Scientific Panel for the GMA. In our view this panel should focus on designing the scientific aspects of the GMA in Phase I. This is in contrast to the preparation of a draft global assessment prior to the regional assessments, as suggested in the Bremen report. To this end, GESAMP considers it essential that the global process begins with broad stakeholder consultation, including the participation of scientists involved in Phase II regional and national assessments, to help ensure that the questions addressed by the GMA and the indicators used are relevant at regional and national levels, and that the expectations of the global assessment design are realistic.

In Phase III the Global Scientific Panel will synthesise the regional scientific assessments to produce a global scientific assessment. GESAMP's view is that the regional policy reviews should, along with the global scientific assessment, feed into the global policy review rather than the global scientific assessment.

GESAMP can draw upon its pool of experts not only for the Global Scientific Panel, but also for specialist expertise in specific sectoral and technical issues. GESAMP continues to advise the UN system on such issues, with several working groups presently active. This ability to provide in-depth thematic assessments should be useful to the GMA process.

GESAMP understands that the role of the Global Scientific Panel will be embedded in a broader process. In addition to a potential leadership role in the Global Scientific Panel in Phases I and III, GESAMP's view is that it should also be involved at other levels of the GMA to ensure the necessary linkage to the process as a whole. Our expertise is not, however, well-suited to a leading role in the Phase II regional assessments, capacity-building, or policy analysis. For these components a supporting role of providing information, clarification, advice, and other inputs as requested would be more appropriate for GESAMP. In this role GESAMP would seek cooperation with other mechanisms. In Phase II regional assessments, for example, GESAMP sees itself cooperating in a supporting role with mechanisms such as GIWA, GEO, the Millennium Ecosystem Assessment, sectoral and regional seas organizations, and other bodies and mechanisms having expertise in regional assessments. GESAMP has not, however, consulted with these bodies to determine whether or not they are interested in participating in the GMA process.

Based upon GESAMP's experience with global assessments, the GMA will inevitably reveal inconsistencies, gaps, and other shortcomings of regional assessments *for the purposes of global assessment*, but we regard a regular process such as the GMA as the best way to solve these problems. In GESAMP's view, one of the most important features of the GMA is its

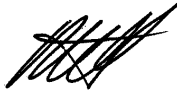
regular, cyclical nature. It is essential that the GMA includes a new feature: continuous process review to provide feedback loops between and within the regional and global levels at each turn of the cycle. This will be the most important element of the GMA process for building national, regional, and global capacity for improved ocean governance. GESAMP could provide input to the process review, along with other partners in the GMA.

GESAMP suggests an approximately 5 year periodicity for the full GMA cycle. The scientific assessment component of each cycle, i.e., the part of the process leading from global design to global assessment in the chart in enclosure 3, would ideally take 2 years but likely require about 3 years for the first cycle. Other components of the GMA process, including process review, direct capacity building, and supporting thematic assessments as required, should occur continuously.

In GESAMP's view the GMA will clearly require the Global Coordinating Mechanism illustrated in Annex IX of the Bremen workshop report. GESAMP suggests that this role be performed by UN bodies with responsibilities related to the marine environment, through appropriate existing interagency cooperation. We do not consider this a suitable role for GESAMP, but do consider it essential that GESAMP's scientific role be closely linked to the Global Coordinating Mechanism. GESAMP's Sponsoring Organizations are already taking concrete steps to establish a central GESAMP Office as called for in our draft Strategic Plan. This Office could provide a suitable existing mechanism both for supporting GESAMP's scientific role in the GMA and for linking the science components with the broader Global Coordinating Mechanism.

On behalf of the GESAMP experts I thank you for the opportunity to express our views on the GMA, and hope you that this is a useful contribution to your work.

Yours Sincerely,



Michael E. Huber
Chair of GESAMP

Cc: GESAMP Members
K. Sekimizu, Administrative Secretary
GESAMP Technical Secretaries

Major GESAMP Reports Related to Assessment of the Global Marine Environment

- 1982.** The review of the health of the oceans. *Reports and Studies, GESAMP No. 15*, 108 pp.
- 1990.** The state of the marine environment. *Reports and Studies, GESAMP No. 39*, 111 pp.
- 1994.** Guidelines for environmental assessment. *Reports and Studies, GESAMP No. 54*, 28 pp.
- 2001.** A sea of troubles. *Reports and Studies, GESAMP No. 70*, 35 pp.
- 2001.** Protecting the oceans from land-based activities. Land-based sources and activities affecting the quality and uses of the marine, coastal, and associated freshwater environment. *Reports and Studies, GESAMP No. 71*, 162 pp.

GESAMP Mission Statement

"To provide authoritative, independent, interdisciplinary scientific advice to organizations and governments to support the protection and sustainable use of the marine environment."

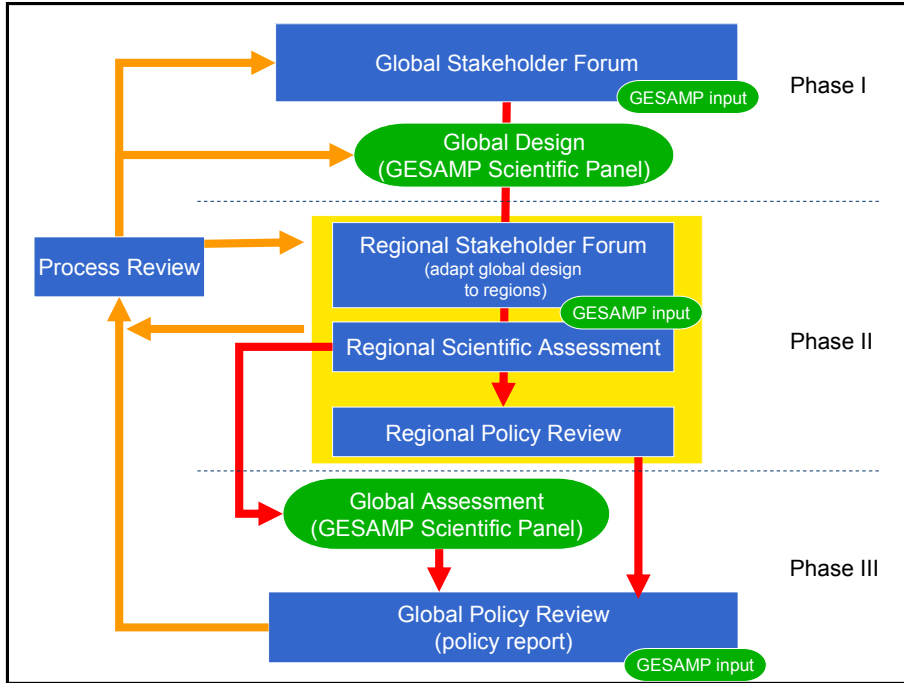
In fulfillment of its mission GESAMP has the following functions:

In response to requests, to:

- 1. Integrate and synthesise the results of regional and thematic assessments and scientific studies to support global assessments of the marine environment;**
- 2. Provide scientific and technical guidance on the design and execution of marine environmental assessments;**
- 3. Provide scientific reviews, analyses, and advice on specific topics relevant to the condition of the marine environment, its investigation, protection, and/or management.**

On a regular basis, to:

- 4. Provide an overview of the marine environmental monitoring, assessment, and related activities of UN agencies and advise on how these activities might be improved and better integrated and coordinated;**
- 5. Identify new and emerging issues regarding the degradation of the marine environment that are of relevance to governments and sponsoring organizations.**



Potential Role of GESAMP:



Leadership role



Support role (e.g., advice, assistance, information)

Reports and Studies GESAMP

The following reports and studies have been published so far. They are available from any of the organizations sponsoring GESAMP.

1. Report of the seventh session, London, 24-30 April 1975. (1975). Rep. Stud.GESAMP, (1):pag.var. Available also in French, Spanish and Russian
2. Review of harmful substances. (1976). Rep.Stud.GESAMP, (2):80 p.
3. Scientific criteria for the selection of sites for dumping of wastes into the sea. (1975). Rep.Stud. GESAMP, (3):21 p. Available also in French, Spanish and Russian
4. Report of the eighth session, Rome, 21-27 April 1976. (1976). Rep. Stud.GESAMP, (4):pag.var. Available also in French and Russian
5. Principles for developing coastal water quality criteria. (1976). Rep.Stud.GESAMP, (5):23 p.
6. Impact of oil on the marine environment. (1977). Rep.Stud.GESAMP, (6):250 p.
7. Scientific aspects of pollution arising from the exploration and exploitation of the sea-bed. (1977). Rep.Stud.GESAMP, (7):37 p.
8. Report of the ninth session, New York, 7-11 March 1977. (1977). Rep. Stud.GESAMP, (8):33 p. Available also in French and Russian
9. Report of the tenth session, Paris, 29 May - 2 June 1978. (1978). Rep. Stud.GESAMP, (9):pag.var. Available also in French, Spanish and Russian
10. Report of the eleventh session, Dubrovnik, 25-29 February 1980. (1980). Rep.Stud.GESAMP, (10):pag.var. Available also in French and Spanish
11. Marine Pollution implications of coastal area development. (1980). Rep. Stud.GESAMP, (11):114 p.
12. Monitoring biological variables related to marine pollution. (1980). Rep. Stud.GESAMP, (12):22 p. Available also in Russian
13. Interchange of pollutants between the atmosphere and the oceans. (1980). Rep.Stud.GESAMP, (13):55 p.
14. Report of the twelfth session, Geneva, 22-29 October 1981. (1981). Rep.Stud.GESAMP, (14):pag.var. Available also in French, Spanish and Russian

15. The review of the health of the oceans. (1982). Rep.Stud.GESAMP, (15):108 p.
16. Scientific criteria for the selection of waste disposal sites at sea. (1982). Rep.Stud.GESAMP, (16):60 p.
17. The evaluation of the hazards of harmful substances carried by ships. (1982). Rep.Stud.GESAMP, (17):pag.var.
18. Report of the thirteenth session, Geneva, 28 February - 4 March 1983. (1983). Rep.Stud.GESAMP, (18):50 p. Available also in French, Spanish and Russian
19. An oceanographic model for the dispersion of wastes disposed of in the deep sea. (1983). Rep.Stud. GESAMP, (19):182 p.
20. Marine pollution implications of ocean energy development. (1984). Rep. Stud.GESAMP, (20):44 p.
21. Report of the fourteenth session, Vienna, 26-30 March 1984. (1984). Rep.Stud.GESAMP, (21):42 p. Available also in French, Spanish and Russian
22. Review of potentially harmful substances. Cadmium, lead and tin. (1985). Rep.Stud.GESAMP, (22):114 p.
23. Interchange of pollutants between the atmosphere and the oceans (part II). (1985). Rep.Stud. GESAMP, (23):55 p.
24. Thermal discharges in the marine environment. (1984). Rep.Stud. GESAMP, (24):44 p.
25. Report of the fifteenth session, New York, 25-29 March 1985. (1985). Rep.Stud.GESAMP, (25):49 p. Available also in French, Spanish and Russian
26. Atmospheric transport of contaminants into the Mediterranean region. (1985). Rep.Stud.GESAMP, (26):53 p.
27. Report of the sixteenth session, London, 17-21 March 1986. (1986). Rep. Stud.GESAMP, (27):74 p. Available also in French, Spanish and Russian
28. Review of potentially harmful substances. Arsenic, mercury and selenium. (1986). Rep.Stud. GESAMP, (28):172 p.
29. Review of potentially harmful substances. Organosilicon compounds (silanes and siloxanes). (1986). Published as UNEP Reg.Seas Rep.Stud., (78):24 p.

30. Environmental capacity. An approach to marine pollution prevention. (1986). Rep.Stud.GESAMP, (30):49 p.
31. Report of the seventeenth session, Rome, 30 March - 3 April 1987. (1987). Rep.Stud.GESAMP, (31):36 p. Available also in French, Spanish and Russian
32. Land-sea boundary flux of contaminants: contributions from rivers. (1987). Rep.Stud.GESAMP, (32):172 p.
33. Report on the eighteenth session, Paris, 11-15 April 1988. (1988). Rep. Stud.GESAMP, (33):56 p. Available also in French, Spanish and Russian
34. Review of potentially harmful substances. Nutrients. (1990). Rep.Stud. GESAMP, (34):40 p.
35. The evaluation of the hazards of harmful substances carried by ships: Revision of GESAMP Reports and Studies No. 17. (1989). Rep.Stud. GESAMP, (35):pag.var.
36. Pollutant modification of atmospheric and oceanic processes and climate: some aspects of the problem. (1989). Rep.Stud.GESAMP, (36):35 p.
37. Report of the nineteenth session, Athens, 8-12 May 1989. (1989). Rep. Stud.GESAMP, (37):47 p. Available also in French, Spanish and Russian
38. Atmospheric input of trace species to the world ocean. (1989). Rep.Stud. GESAMP, (38):111 p.
39. The state of the marine environment. (1990). Rep.Stud.GESAMP, (39):111 p. Available also in Spanish as Inf.Estud.Progr.Mar.Reg.PNUMA, (115):87 p.
40. Long-term consequences of low-level marine contamination: An analytical approach. (1989). Rep. Stud.GESAMP, (40):14 p.
41. Report of the twentieth session, Geneva, 7-11 May 1990. (1990). Rep. Stud.GESAMP, (41):32 p. Available also in French, Spanish and Russian
42. Review of potentially harmful substances. Choosing priority organochlorines for marine hazard assessment. (1990). Rep.Stud. GESAMP, (42):10 p.
43. Coastal modelling. (1991). Rep.Stud.GESAMP, (43):187 p.
44. Report of the twenty-first session, London, 18-22 February 1991. (1991). Rep.Stud.GESAMP, (44):53 p. Available also in French, Spanish and Russian

45. Global strategies for marine environmental protection. (1991). Rep.Stud. GESAMP, (45):34 p.
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