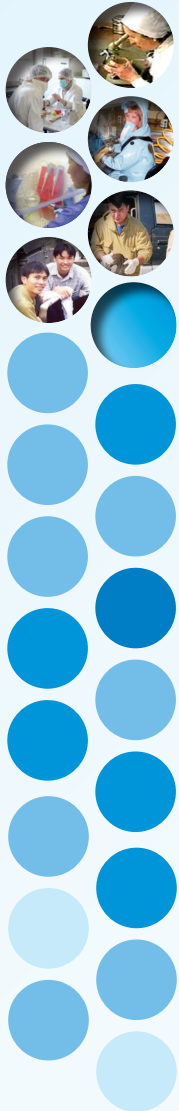




IFBA

International Federation of
Biosafety Associations



2nd Annual Conference **Biosafety and Biosecurity: Building Sustainable Capacity**

June 28-29, 2012 Johannesburg, South Africa
Sandton Convention Centre

Conference Outcome Document



1.0 Conference Overview

This document summarizes the outcomes of the 2nd Conference of the International Federation of Biosafety Associations (IFBA), *Biosafety and Biosecurity: Building Sustainable Capacity*, held in Johannesburg, South Africa on 28 and 29 June, 2012. The conference sought to identify innovative approaches to biosafety and biosecurity that are affordable, practical and sustainable; to raise awareness and highlight the significant benefits of sound practices; to advocate strategies to collectively address urgent gaps and priorities in under-addressed regions of the world; and, to facilitate collaboration among the African and international biosafety communities. The conference was co-hosted by the African Biological Safety Association who have transformed the face of biosafety with the formation of several new national associations including in Ghana, Nigeria, Mali, Cameroon, Cote D'Ivoire, Kenya, Morocco, Egypt, Uganda and South Africa.

The meeting was opened by IFBA Executive Director Maureen Ellis with the participation of IFBA Board Chair Willy Tonui, President Tubi Abiola of the African Biosafety Association and President Delille Wessels of the South African Biorisk Association. There was much appreciation for the many dedicated laboratory professionals who put their lives at risk every day to provide essential public and animal health services for HIV, TB and other dangerous diseases. Infections among healthcare workers occur far too often and are completely preventable given good biosafety practices and laboratory facilities. The IFBA's task is to help ensure that these individuals in all countries have the knowledge and tools they need for a safe, secure and healthy workplace. Participating in the discussions were 130 dignitaries from 47 countries representing regional and national biosafety associations, international organizations, governments, academia, civil society and the broader public & animal health and security communities.

Stephen Lewis, Co-Director AIDS-Free World, delivered the keynote address and reminded delegates of the vital value of the work that is done in laboratories worldwide. He stressed the centrality of biosafety to global public health and called for increased attention and resources to be paid to this indispensable issue. Including the targets and objectives of biosafety into the agenda for an AIDS-free generation, the agendas of the World Health Assembly, UN Security Council, G8, G20, and post-2015 Millennium Development Goals should be vigorously pursued by the IFBA. Mr. Lewis concluded his address by acknowledging the important breakthrough that can be attained when it is unmistakably understood that HIV and the major diseases of the world cannot be handled without adequate biosafety and biosecurity measures in place.

With this in mind, the IFBA was immensely proud to support the Hillcrest AIDS Centre Trust, a non-profit non-governmental organization located in South Africa. The Centre provides care to all those infected or affected by HIV/AIDS in a practical way including income-generating projects to enable people to earn a living through crafts and artwork. This year's conference

bags were sewn by Hillcrest's crafters (woman infected or affected by HIV/AIDS) using traditional South African shweshwe fabric. Each conference delegate's badge was also adorned with a Zulu Love letter made by Centre's beaders.

This 2nd conference built on the work of the first 1st IFBA conference held in Bangkok, Thailand, February 2011 and the resulting *IFBA Declaration on Advancing Global Biosafety and Biosecurity*. In addition to plenary presentations, there were 3 dedicated working sessions to address key goals and priority projects articulated in the Bangkok Declaration and the IFBA's 5 Year Strategic Plan: 1) Building, Empowering and Advocating for Biosafety Communities; 2) Practical and Sustainable Risk-based Biocontainment for Safely Diagnosing Pathogens; and 3) Ensuring Quality Biorisk Management through Certification of Professionals. Data-on-the-Spot technology was used to gather real-time data from all participants on collectively increasing the alignment and effectiveness of donor support for biosafety associations worldwide. Three individuals (Dinara Turegeldiyeva from Kazakhstan, Siripan Wongwanich from Thailand, and Edith Tria from Philippines) were recognized as 2012 Biosafety Heroes for their extraordinary contributions.

In closing the conference, Ms. Ellis pronounced that continued progress in biosafety and biosecurity depends on our sustained commitment to action as we work to build safer, more sustainable, and more effective public and animal health laboratories across all regions.



Delegates at the 2nd IFBA Conference *Biosafety and Biosecurity: Building Sustainable Capacity*, Johannesburg, South Africa, June 28, 2012

2.0 Working Group 1 - Building, Empowering and Advocating for Biosafety

Biosafety and Biosecurity: Building Sustainable Capacity, June 28-29, 2012 South Africa
Working Group 1 “Building, Empowering and Advocating for Biosafety Communities”

- Identifying and increasing awareness among decision-makers and governing bodies
- Securing political and financial support
- Developing competencies, national strategies and assessment/gap-analysis tools
- Producing and distributing advocacy materials targeting all audiences
- Identifying notable figures to act as champion advocates for biosafety

Presentations: Advocating for Biosafety Core Competencies (Thomas Stevens)

Facilitators: Ben Fontes, Khalid Temsamani, Gowri Gopalakrishna, Tony Della-Porta

The IFBA and its member associations have declared 2012 as the *Year of International Biosafety Advocacy*, whereby a series of key strategic activities will be carried out to further achieve our shared goal of raising the priority for biosafety and biosecurity among National Ministries of Health, Agriculture & Environment, senior government officials, international agencies and other senior authorities to ensure an engaged and sustained country-level partnership in the implementation of national biosafety and biosecurity strategies by biosafety associations worldwide. The IFBA’s 5 Year Strategic Plan calls for the achievement of the following advocacy goals: a) “Biosafety and biosecurity is recognized as a priority for national public and animal health authorities”; and b) “Influential and internationally well-recognized individuals are champion advocates for biosafety and biosecurity”.

During this working session, participants were introduced to the goals and objectives of the *2012 Year of International Biosafety Advocacy*. Using Data-on-the-Spot technology, a baseline of biosafety advocacy issues, challenges and priority needs were derived. Using case studies, participants were guided through the concepts of advocacy, why it is important, and learned effective techniques for influencing policy decision making at senior governmental levels. Using Kenya, Pakistan and Yemen as models, participants then developed a series of advocacy strategies and solutions for the following advocacy goal: “*Raising the priority for biosafety and biosecurity among National Ministries of Health, Agriculture and Environment*”. During the process, participants identified the challenges of implementation and what assistance might be needed from primary and secondary audiences to achieve their advocacy goals.

The working group participants recommended that the following advocacy actions are taken:

- Communicating and building trusted partnerships with senior government officials and policy makers;
- Using social media, creating powerful messages, story-telling, and putting a human dimension on biosafety to convey its centrality to global public health and security;

- Identifying and engaging champion biosafety advocates for specific target audiences;
- Developing a comprehensive communication strategy, public relations campaign and marketing tools for engaging the media, the public, key allies, and other stakeholders;
- Conducting innovative fundraising campaigns using a variety of creative fundraising platforms; and
- Targeting the World Health Assembly, UN Security Council, G8, G20, UN MDGs, an Aids-Free Generation, and other key bodies & initiatives to include the objectives of biosafety into their agendas for action.

Note: The complete data set generated by this session is available from the IFBA by contacting the secretariat at: secretariat@internationalbiosafety.org

3.0 Working Group 2 - Practical, Sustainable & Risk-based Biocontainment Laboratories

Biosafety and Biosecurity: Building Sustainable Capacity, June 28-29, 2012 South Africa
Working Group 2 “Practical and Sustainable Risk-based Biocontainment for Safely Diagnosing Pathogens”

- Building relevant facilities appropriate for their intended purpose
- Ensuring biocontainment guidelines are risk-based and evidence-based
- Identifying practical, cost-effective solutions that are locally sustainable
- Gathering available data and identifying/filling in gaps in knowledge
- Strengthening biocontainment networks to share knowledge and resources

Presentations: Biocontainment Survey (Jennifer Gaudio); Chatham House meeting report on “Safe and Secure Materials: Matching Resources to Reality” (Heather Sheeley)

Facilitators: Paul Langevin, Siraj Kaahwa, Jonathan Richmond

The IFBA’s *Biocontainment Engineering Working Group* (BEWG), chaired by Uganda and Canada, was created in 2010 to mentor and support those new to the field of biocontainment engineering and serves as a “think-tank” to identify practical and sustainable solutions for biocontainment laboratories in resource limited countries. The trend in containment technology has been to build containment laboratories highly dependent on engineering controls and technology. Inevitably construction and maintenance costs for these facilities have become prohibitive. International organizations, including the IFBA’s BEWG, believe that the introduction of a new practical risk-based approach is necessary and will introduce substantial economic and health benefits. . Rather than simply taking a high technology approach of focusing on engineering and equipment, approaches to containment facilities must balance engineering controls with operational, scientific and management controls. The best solutions also typically account for cost pressures, the lack of local technical equipment and replacement parts, unreliable utilities, and local inexperience in constructing and operating BSL-3 facilities.

Using Data-on-the-Spot technology and analysing the results from the *IFBA Biocontainment and Engineering Survey*, a baseline of biocontainment capacities, practices, challenges, and priority needs were derived from the participants. A decision tree process was then used to explore the concepts of risk-based approaches to biocontainment laboratory design. Participants identified optimal solutions based on a balance between engineering solutions and operational practices to develop a practical approach for a series of laboratory program case studies. Throughout the process participants identified solutions that have been successfully implemented in their regions. Finally, the group discussed BEWG's role in contributing to the objectives set out in the Chatham House report on *"Safe and Secure Materials: Matching Resources to Reality"*.

The working group participants recommended that the following priority actions are taken by the IFBA's BEWG:

- Reviewing the BEWG membership & engaging key individuals from all regions to participate;
- Implementing a BEWG project management framework with updated goals, objectives, priority projects and resources required;
- Utilizing a BEWG web portal for network communications and resource sharing;
- Developing tools and approaches for scalable risk-based biocontainment design (e.g. local risk-assessment model, engineering decision-tree model, commissioning & verification model);
- Collaborating with WHO, OIE and other stakeholders for incorporation of risk-based solutions into international best practices and guidelines;
- Exploring innovative ventilation solutions for biocontainment laboratories including natural ventilation as appropriate;
- Investigating the issues associated with sustained over-pressurization; and
- Promoting the BEWG mentoring and twinning program.

Note: The complete data set generated by this session is available from the IFBA by contacting the secretariat at: secretariat@internationalbiosafety.org

4.0 Working Group 3 - Ensuring Quality Biorisk Management through Certification of Professionals

Biosafety and Biosecurity: Building Sustainable Capacity, June 28-29, 2012 South Africa
Working Group 3 "Ensuring Quality Biorisk Management through Certification of Professionals"

- Certification of professionals to meet a quality minimum standard
- Defining specialized disciplines and graduated levels of certifications
- Certified training programs and demonstrating competency
- Development and maintenance of certification scheme

Facilitators: Ren Salerno, Tim Trevan, IFBA Certification Working Group

Over the past several years, IFBA's Biosafety Professionals Working Group, co-chaired by Pakistan and the US, has dedicated considerable effort to evaluating the need for international systems of qualifying individuals who carry out biorisk management programs. Working together with existing biosafety associations, national-level accreditation programs and the CEN Workshop 53 Biosafety Professional Competence initiative, the Working Group recommended the development of an IFBA international certification program that would complement and supplement existing overarching credentials such as those offered by the American Biological Safety Association, Japanese Biological Safety Association and others. This new program establishes levels of technical competency in several specific technical disciplines and certification of individuals is based on examination and/or demonstrated competence depending on the level of certification being sought.

During this working session, participants were provided with a background on the development of the IFBA certification project and an introduction to the proposed draft framework including the draft technical competencies and graduated levels (apprentice, practitioner, master practitioner). Using Data-on-the-Spot technology and group discussion, strengths, weaknesses, challenges and market opportunities were identified for the proposed framework. The objectives and requirements for several model technical competencies were further developed in detail by the participants (basic biorisk management, risk assessment, biological safety cabinets, and waste management). The associated issues of training (instructors, courses) and the opportunities for training delivery partners were also discussed amongst the group. Finally, participants identified priority technical competencies for pilot testing and the associated next steps needed to ensure a successful delivery of the pilot.

As a result of the working session, the following priority actions are being taken by the IFBA's Certification Working Group:

- Developing a pilot project to include the basic biorisk management and waste management technical competencies;
- Identifying a country or countries for implementation of the pilot project (e.g. Tier 2 developing countries such as Jordan/Thailand, and/or Tier 3 underdeveloped countries such as Sudan/Yemen) in collaboration with local biosafety association partners;
- Refining the certification framework to consider areas of overlap within like families of technical competencies (i.e., pyramid structure);
- Conducting broader market research to ensure adequate uptake of certifications and success of the program;
- Developing a business plan and cost estimate for implementation of the pilot project; and,
- Developing Standard Operating Procedures for the certification program in accordance with ANSI/ISO 17024 and other applicable international best practices & guidelines.

Note: The complete data set generated by this session is available from the IFBA by contacting the secretariat at: secretariat@internationalbiosafety.org

5.0 Linking and Leveraging Expertise & Resources

The IFBA's member and observer organizations, now totalling 61 organizations, represents a diverse community of scientists, biosafety professionals, laboratorians, NGOs, academics, private industry, governments, policy makers and international organizations from around the world. Taking collective action and harnessing the power of these stakeholders underpins IFBA's efforts to achieve widespread and lasting improvements to biosafety and biosecurity. No individual sector can make as big a difference alone as we can make by working together.

This final session of the 2nd IFBA Conference was structured around the concepts of linking and leveraging expertise and resources among participating stakeholder sectors, and in particular, new and emerging biosafety associations and the donor community. While aid from the donor community cannot solve all the challenges, supplementing domestic funds with donor aid in some of the neediest regions can make a huge difference. Using Data-on-the-Spot technology, baseline demographic data and responses to specific questions from each conference participant were obtained on: 1) the role of local partners, biosafety associations, and donors; 2) enhancing the alignment & effectiveness of the desired impact of donor aid; and 3) implementing measures to improve coordination among the global biosafety community.

Based on the results of the data generated, conference delegates voiced the following principles to transform cooperation and aid relationships between biosafety associations and the donor community:

- A commitment and continued support from local Ministries Health, Agriculture, & Environment, and other local partners is critical for a successful national program;
- Biosafety associations play an important complementary role with governments in strengthening national biosafety & biosecurity;
- It is important for national biosafety associations to coordinate their activities with national government ministries, regional associations, the donor community, the IFBA, and other key partners;
- Establishing a long-term strategic plan and mobilizing internal resources to sustain their activities is a top priority for biosafety associations;
- Biosafety associations must put in place measures to be transparent and accountable to their members, donors, governments and other stakeholders;
- When applying for donor funding, biosafety associations should develop projects with targeted donors based on mutually aligned goals and priorities;
- Aid for biosafety associations is most effective when it is aligned with country needs and priorities and there is strong local partner leadership and ownership;
- Mutual accountability, transparency, implementing aid using local partners, and focusing on results towards achieving outcomes are all important elements in enhancing aid effectiveness;

Note: The complete data set generated by this session is available from the IFBA by contacting the secretariat at: secretariat@internationalbiosafety.org