

**WORLDFISH CENTRE  
BOARD OF TRUSTEES  
FULL BOARD  
FOURTIETH MEETING  
APRIL 2-3, 2009  
HQ, PENANG**

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**Present:**

- Ambassador Remo Gautschi	Chairman
- Dr Wendy Craik	Vice-Chairman
- Dr Stephen J. Hall	Member, Ex-officio, Director General
- Dr Asger Kej	Member
- Dato' Ahamad Sabki Mahmood	Member, Ex-officio
- Ms Vimala Menon	Member

**Absent  
With  
Apology:**

- Dr Ayman Abou-Hadid	Member, Ex-officio
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**Board  
Secretary:**

- Dr James K. Oliver	Director, Science Coordination
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**Staff in Attendance:** Dr Patrick Dugan, Mr Wayne Rogers, Ms Fok Siew Choy, Ms Susheela Sabaratnam

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**DRAFT MINUTES**

**Agenda Item 1a: OPENING REMARKS**

The Chairman, Ambassador Remo Gautschi, welcomed the Board of Trustees to the 40<sup>th</sup> Board of Trustees Meeting. He noted that there would be a Board photo session during the coffee break.

**Agenda Item 1b: APOLOGIES**

Dr Ayman Abou-Hadid sent his apology. He was not able to attend the meeting due to an emergency meeting with the Minister of Agriculture in Egypt.

**Agenda Item 1c: DECLARATION OF CONFLICT OF INTEREST**

All Board members declared that there was no conflict of interest.

**Agenda Item 2: REVIEW AND APPROVAL OF THE PROPOSED AGENDA**

The Chairman informed the Board that there will be a closed session meeting without the Director General and Management staff later this afternoon to discuss the Director General's annual performance assessment.

The Board adopted the proposed agenda of the 40<sup>th</sup> Board of Trustees meeting.

**Agenda Item 3: REVIEW AND APPROVAL OF THE 38<sup>TH</sup> AND 39<sup>TH</sup> BOARD OF TRUSTEES MEETING MINUTES**

The Board reviewed the 38<sup>th</sup> and 39<sup>th</sup> Board of Trustees Meeting Minutes page by page and made the following amendment.

**Board Decision:**

**The Board approved the minutes of the 38<sup>th</sup> Board of Trustees Meeting subject to the following amendment. (Board Action 40-1)**

Page 1, Agenda item 1a, under the introduction by Dato' Ahamad Sabki Mahmood, it should read as "..... **March 2003**" and not 2007.

**Board Decision:**

**The Board approved the minutes of the 39<sup>th</sup> Board of Trustees Meeting. (Board Action 40-2)**

The Board asked the Board Secretary strived for increased brevity and to avoid repeating recommendations in the body of the minutes.

**Agenda Item 4: BUSINESS ARISING FROM THE MINUTES**

- The Director General agreed that he will provide an update on return on investments at the next Board meeting.
- Treasury Functions

The Corporate Services Director to draft a policy paper on the treatment of foreign currency within WorldFish Center. The Audit Committee understands that the Corporate Services Director tried to incorporate a policy on subject matter within the CGIAR centres but this was not viable. However, the Board would like Management to look into this matter and provide the Audit Committee at the next meeting, with a draft policy on how WorldFish Center will deal with the foreign currency.

**Agenda Item 5: REVIEW BOARD ACTION PLAN TO 38<sup>TH</sup> AND 39<sup>TH</sup> BOARD MEETING**

The Board reviewed the Board Action Plan and highlighted that the "Appointment of External Audit Firm" should be reviewed on a yearly basis. Management was asked to confirm if the contract with Grant Thornton is decided on a yearly renewal basis.

**Agenda Item 6: REPORT OF THE CHAIRMAN AND UPDATE ON THE CGIAR AND ALLIANCE BOARD, REPORT BY OTHER TRUSTEES ON ACTIVITIES AND EARNINGS RELATING TO BOARD ACTIVITIES**

**Ambassador Remo Gautschi:** The Chairman's report was taken as read. The Chairman informed the Board that further update on the CGIAR reform will be carried out in a separate agenda item. He noted that he would like to visit one of the regional offices during the year.

**Dr Asger Kej:** Dr Kej reported that since the last Board meeting, he was mainly involved in the reviewing and short listing of new Board candidates.

**Ms Vimala Menon:** Ms Menon said that she was only involved in the Audit Committee. However, she would like to get more involved and try to understand the research work of the Centre to determine how she can contribute and assist the Management. She said that she will probably have to have a few meetings with the Corporate Services Director to achieve a better understanding.

**Dr Wendy Craik:** Dr Craik reported that there was not much development on the programme between the Mekong River Commission and the Murray Darling Basin Commission as the funding by AUSAID is still pending.

**Dato' Ahamad Sabki Mahmood:** Dato' Sabki reported that he attended the COFI Meeting in Rome in March 2009. He mentioned that WorldFish Center's strategic research on small scale fisheries is very much in line with the COFI priorities.

**Agenda Item 7: SUMMARY REPORT OF THE DIRECTOR GENERAL**

The Director General's report was taken as read by all Board of Trustees. The Director General said that 2008 was a good year but not a spectacular one. He briefed the Board on the Langkawi Retreat attended by senior management staff. During the week long retreat, the group brainstormed and came up with "Must Win Battle" strategies for the Centre. Management is currently focusing on the first Must Win Battle and a detailed update on this subject matter will be presented to the Board.

The Director General informed the Board that the Discipline Directors and some research staff are currently attending a two days impact assessment workshop outside the Center.

The Director General reported that he will be spending most of his time on the CGIAR Change Management Process and he continued to look forward to receive feedback from staff and the Board of Trustees on his performance. However, he indicated that his travel schedule would allow him to spend approximately the same amount of time in the Centre as last year.

The Chairman of the Board indicated he was satisfied with the way the Director General managed his time, so far, and hoped that he will continue to maintain his focus and balance till end of this year. The Chairman of the Board reminded the Director General that the success of WorldFish Center was top priority.

A Board member noted the strong interaction between the Science Advisory Committee members and the Discipline Directors as well as the Centre's staff. This indicated that the Science Advisory Committee is fulfilling its intended function.

The Board thanked the Director General for his report.

**Agenda Item 8: UPDATE ON THE PERFORMANCE OF 2008 KEY PERFORMANCE GOALS**

The Board expressed concern on the significant number of unmet targets for the 2009 key performance goals. The Chairman suggested that the Director General look into having fewer more achievable goals. The Director General responded that the goals were the ones identified by the Centre as the most important for the current year and that setting lower targets might not send the right message to staff. After some discussion, the Board agreed that the goals and targets were appropriate because they were in fact not annual but medium term oriented whereas the targets were yearly percentages of the goals to be achieved.

A Board member commented on the gap between the key performance goals and the values and behaviours of the centre. The Director General agreed that this was an important issue which he would be looking into.

**Agenda Item 9: REVIEW AND APPROVAL OF 2009 KEY PERFORMANCE GOALS**

The Director Science Coordination presented the 2009 Key Performance Goals and informed the Board that some of the targets have been revised to be more achievable. Management was requested to present the final version of the 2009 Key Performance Goals together with the minutes of the Board meeting.

**Board Decision:**

**The Board approved the revised 2009 Key Performance Goals as presented and Management will circulate to the Board the final version of the 2009 Key Performance Goals including the targets which were to be based on the results of the staff survey. (Board Action 40-3)**

**Agenda Item 10: UPDATE ON 2008 FINANCIAL STATUS INCLUDING REVIEW OF OVERHEAD COST RECOVERY**

The Corporate Services Director presented the 2008 financial status and informed the Board that he was pleased that 2008 financial performance was very sound. There was more overhead recovery in grant projects in 2008 compared to the budget. However, 2009 budget would be a challenge to the centre. There were two main reasons for not being able to get full overhead recovery. Some donors' had strict limits on permissible overheads. Also the ability of research staff to identify and incorporate all direct and indirect costs, and their skills in presenting these to donors needs to be improved.

The Board noted the financial report.

**Agenda Item 11: MEDIUM TERM FUNDING OUTLOOK**

The Director of Business Development and Communications gave a very comprehensive Power Point presentation on the funding situation. The Board congratulated the Director of Business Development and Communications on her report and noted the medium term funding outlook as presented.

**Agenda Item 12: HUMAN RESOURCES REPORTING INCLUDING STATUS UPDATE ON STAFFING TREND, TURNOVER, GENDER AND DIVERSITY REPORT**

The Corporate Services Director presented the report on staffing trends to the Board and informed the Board that Management had taken steps to increase the science staff headcount.

The Corporate Services Director clarified that Part 1 countries referred to developing countries and Part 2 as under developing countries.

The Corporate Services Director informed the Board that, generally, local staff in Malaysia was not happy with 3 year contracts. Management may explore alternative arrangements in the future.

The Board noted the report.

**Agenda Item 14: UPDATE ON MUST WIN BATTLES STRATEGY**

The Director General gave the Board an update on the Must Win Battles. He provided the Board with an overview of the brainstorming sessions that took place during the Langkawi Retreat in January 2009. The sessions allowed senior management to assess the Centre's health and discuss where the Centre should be heading. Out of these sessions, the group came up with three Must Win Battles (MWB), namely:

- MWB1 – Focusing our energy
- MWB2 – Creating more time for impact
- MWB3 – Leading Change

The Deputy Director General gave a presentation to the Board on the work that had been done since the retreat on "focusing our energy". The next stage will be to work with the Discipline and Regional Directors. This will occur on April 6-7, 2009 and will cover the following issues:

- Improving our country focus
- Implementing medium term plan in 2009
- Geographical and Science structure
- Clarifying roles and responsibilities

The centre has to focus its energy in order to be more effective and put in more concerted efforts on focal countries in order to be more integrated.

The Deputy Director General informed the Board that Management would monitor the programme very closely in the identified Programme Countries. Currently, the Programme

Countries are DRC, Egypt, Malawi, Zambia, Bangladesh, Cambodia, Solomon Islands and Philippines. Two new potential Programme Countries are Uganda and Indonesia.

The Deputy Director General informed the Board of the potential closure of the Cameroun office as it did not meet the criteria for a Programme or Project Country. Management would proceed to close the Cameroun Office and relocate staff.

The Deputy Director General indicated that further details would emerge after the meeting with the Discipline and Regional Directors. There are possible changes in the roles and responsibilities in the regional and science structure as well as at the senior management levels.

A Board member queried how time would be found to allow staff to be fully involved in the work of these Must Win Battles. The Director General responded that there would be some shifting of work priorities to ensure staff devoted the appropriate time to these issues.

There was significant discussion on whether there were too many programme and project countries and offices and whether further trimming on focus would be appropriate.

Management clarified the criteria for setting up focal offices. Followings are the five criteria:-

- Impact to reduce poverty and hunger
- Focus on sustainable Aquaculture
- Develop IPG that has a greater impact
- Quality of partnership that the centre can have and develop in the Programme Country
- Engaging in this partnership and understanding what the centre can develop

The Chairman summarized the discussion by saying that the Board tends to favour greater flexibility and would like to see a high level of focus, concentrating on key countries. This should be taken into account in the final paper. The Board also reiterated that the opening and closing of offices are decided by the Board.

Management noted the Board's comments and will prepare a full paper on Must Win Battle 1 for Board approval. If it is ready before the next scheduled Board meeting, it could be circulated for approval out of session.

#### **Board Decision:**

**The Board requested Management to present to the Board during an out of session the full paper on Must Win Battle Strategy No. 1 – Focusing our energy for approval. (Board Action 40-4)**

#### **Agenda Item 13: UPDATE ON CGIAR CHANGE PROCESS**

The Director General gave a comprehensive presentation to the Board on the CGIAR Change Process and informed the Board about his involvement as the Chairman of the Alliance Executive (AE), and his roles in the Transition Management Team (TMT) and Consortium Planning Team.

The Board was aware that WorldFish Centre would probably be facing a challenging situation in time to come due to the change management process. The Director General would have to be very careful to avoid conflicts of interest between the Centre and the

change process. The Director General requested the Board to take this into account when reviewing key decision related to the process.

The Board was supportive towards the CGIAR reform based on the information provided to the Board at the moment. The Chairman informed that he would also keep the Board informed from time to time on any development regarding the CGIAR reform.

The Board Secretary was asked to draft a statement, to specify the Board's role and the donor's commitment level with regards to the change management process so that WorldFish Center could continue to maintain its freedom.

**Agenda Item 15: UPDATE ON ABBASSA FACILITY INCLUDING TIMELINES FOR SPECIFIC ACTIONS AND DECISION**

The Deputy Director General gave an update on the Abbassa facility and informed the Board that the process that was put forth one and a half years ago is currently on track and the future of Egypt would depend if it is a Programme or Partner Country. Due to the Aquaculture work in Egypt, it would be most likely to consider Egypt as a Programme Country.

With regards to the core funding on Abbassa facility, it would be a maximum of US\$100K for each year depending on the budget availability.

The Board noted the progress update and proposed timeline in the report.

**Agenda Item 16: UPDATE ON CSD CCER IMPLEMENTATION PLAN AND TIMELINES**

The Corporate Services Director introduced this paper and informed the Board that Human Resources and Finance Units are on track in terms of the implementation plan except MIS due to the lack of capability.

The Board noted the report on the CSD CCER implementation plan and timelines. The Board requested the Corporate Services Director to replace the word "ongoing" under timeline with a specific deadline.

**Agenda Item 17: REVIEW AND APPROVAL OF MANAGEMENT RESPONSES TO THE AQUACULTURE'S CENTER COMMISSIONED EXTERNAL REVIEW (CCER)**

The Deputy Director General introduced this paper on behalf of the Aquaculture Discipline Director, Dr Malcolm Beveridge and apologized that Dr Beveridge was not able to present this paper because he was attending an Impact Assessment Workshop. The Board discussed the CCER recommendations and Management's responses and agreed with all of them.

**Board Decision:**

**The Board approved the following CCER's report and Centre's responses to its recommendations. (Board Action: 40-5)**

“In this review there are a number of judgment calls based on a very limited empirical base, which could not be otherwise for a two week review. This will extend into the recommendations, the thrust of which focuses on how WorldFish might think about deepening its research strategy and research agenda for small scale aquaculture. Although these will follow in some sort of logical order, they will be relatively discrete recommendations and they therefore will follow in numbered sequence.

1. As stated in the last medium-term plan (WorldFish, 2008) meeting the challenge of sustainable aquaculture “will require interventions across the whole research-to-development spectrum.” The argument in this review is that the current WorldFish work on small scale aquaculture is concentrated at the development end of this spectrum, without a research agenda which informs and drives that work. The initial recommendation is that a strategic research framework be developed around the goals as represented in the challenge. The review team has not seen an articulation of such a strategy that would inform the development of the project portfolio on small scale aquaculture over the next five years.

The team’s assessment is that the strategy might be developed in terms of the following framework:

- a. The foundation for the strategy has to be the development of research and development strategies in each of the countries. Contexts for aquaculture development are diverse across countries. The strategies must thus follow from an analysis of current status, drivers, and strategic choices in the development of the sector in each country to allow functional engagement by WorldFish in those countries. It is therefore critical to evaluate what each of the target countries (the so called planting of flags) represent in terms of the spectrum in the development of sustainable aquaculture in the developing world as a whole.

**Agreed.** *As we seek to increase our impact and in recognition of concerns that we are becoming too thinly spread to effectively support staff and partners, the Center is developing a more focused approach to its engagement at country level. As we move forward with this approach the Center will strengthen engagement with partners in strategic sectoral planning of aquaculture in key countries, together with engagement in shaping the research and development agenda for aquaculture. We will complement this by undertaking projects that help inform the strategy for the sector and on addressing priority researchable constraints. This will be reflected in the MTP.*

- b. That across the target countries that a set of cross-cutting or generic research issues is expected to arise as country strategies are defined.

**Agreed.** *We are seeking to maximize learning and impacts by developing an integrated regional and global research agenda and specifying IPGs. These will be reflected in a sharper 3-year MTP, revised annually.*

- c. However, generic research strategies should be defined not just in technical terms of seed, feed, and aquaculture systems, but also include markets, resource management, environmental externalities, and institutional innovation (in areas such as extension and micro-credit).

**Agreed.** MTPs 1 (Global Drivers), 2 (Markets and Trade), 3 (Governance) and 5 (Environment) explicitly address these issues. These MTPs recognize that to achieve our Development Challenge for Sustainable Aquaculture we must take account of the impacts of global drivers on vulnerability, find effective means of connecting aquaculture producers to input and output markets, find effective ways to help build both individual and institutional capacity, and develop and adopt a resilience/ecosystem-based framework to aquaculture. It is recognized that the MTPs need to be more explicit and better integrated and driven by global and country level aquaculture research priorities. This is currently being addressed in developing work plans for 2009 and in the draft MTP 2010-12. This process will also clarify skills needs at global and country level (see also 1d and e below).

- d. This will create an interactive negotiation between MTP programs on markets and trade, improving sustainable aquaculture technologies, and aquaculture and the environment, on the one hand, and country strategies, on the other. Currently most of the research and development on aquaculture technologies is based in the country programs, while much of the markets work operates through more global projects, yet there is also a need for research capacity on markets in the country programs, particularly with the move toward SME"s.
  - e. This will allow an improvement in targeting of what research capacities should be built at country and regional levels and at headquarters and a better definition of longer-term research partnerships.
2. Moving from a project portfolio based on donor funding priorities in target countries to one based on an evolving research agenda will obviously require a shift or diversification in funding sources, away from or in addition to traditional funding sources based on bi-lateral development budgets. This may involve twinning research support from one source with development projects from another. It may require tapping agricultural budgets managed in donor headquarters or sourcing funds from non-traditional donors interested in natural resource management, environment, or agricultural development. However, leading this process will be the identification of key projects derived from the research strategy that have significant potential to move aquaculture systems to the next more intensive stage in their development. The medium term plan provides only a vague notion of where those critical investments should be made to meet the aquaculture development challenge.

**Partially agreed.** There is an underlying assumption here that aquaculture production methods must be intensified. While we agree in principle, it is essential that we conduct research on impacts of intensification of production methods on poverty and on demands on ecosystem services.

*The MTP 2010-12 will be sharpened to state where critical investments must be made in order to meet our Development Challenge. However, this will require more focused fund-raising in support of this work and Center core funding where possible. Many of the problems are multi-disciplinary or inter-disciplinary in nature and it is recognized that such research is not easy to fund at present. We already source a wide range of funds, some of them 'non-traditional', but accept that we must think both more strategically and more widely in order to support the research we need to do. It is also argued that we must work with partners, especially in the CG, to change donors' attitudes to research. The take home message is that without well-targeted research in support of development we cannot innovate or learn what works. Without such understanding donor will, at best, make sub-optimal investments and, at worst fail to achieve development impact at all.*

3. In addition to the continued work on the more traditional IAA with major dependence on the on-farm resource base for the poorest farmers in marginal areas, should WorldFish open up a research and development track on small scale operations in the 0.5 to 3 ha land size class, the so called SME? As growth in supply continues to lag behind growth in demand, fish prices will continue to increase, making aquaculture an increasingly attractive investment. In Bangladesh in particular there needs to be an increased focus on the next increment in pond productivity which will require a significant increase in off-farm input use and even further improvement in farmer management. The question is whether this will come from a more entrepreneurial SME cohort or from large scale, commercial units, as is happening in Andhra Pradesh, India, although some of these were developed by former small-scale rice farmers even though this sector is now dominated by mostly outside entrepreneurs. A related question to the former is how the SME cohort might be given some competitive advantage, particularly in servicing the higher value (larger fish), urban markets. Thus, there is a rationale for WorldFish involvement also along this second track. However, the real question of what research can do to ensure the development of this cohort is by no means clear. Should WorldFish want to pursue projects along these lines, then a more explicit research and development strategy needs to be developed for SMEs and certainly differentiated between sub-Saharan Africa and Asia.

***Partially agreed.*** *Whether to focus on direct IAA or the indirect IAA1 and SME producer sub-sector in a particular country should largely be determined by national strategy and purpose as well as by producer assets, costs and alternatives. For example, if a country's Poverty Reduction Strategic Plan prioritizes reducing poverty among small-holder farmers, promotion of pond aquaculture may be one of the few effective means to do so. Similarly, promotion of diversification of coastal livelihoods into small-scale aquaculture may be one of the few options to build resilience in some parts of the world. However, it is also recognized that support to ensure sustained adoption of aquaculture by these target groups can be lengthy and costly and that it is unlikely to generate substantial improvements in food security or employment. The arguments for supporting the development of the SME aquaculture production sub-sector are that it is more profitable and therefore more likely to succeed, is more cost effective in terms of extension support, produces more fish for sale thereby improving food security, and generates employment. WorldFish has been working with the SME sub-sector in countries such as Cameroon and Egypt for*

*nearly a decade and in Malawi for more than 4 years. Arguably, the Center has been in the vanguard of changing thinking about how best to maximize the impact of aquaculture on poverty, especially in sub-Saharan Africa, through a refocusing of efforts on the SME sub-sector. Although we argue to retain some focus on small-holders we agree that in order to meet our Development Challenge for sustainable aquaculture WorldFish must focus more effort on the SME aquaculture sub-sector. We accept that how we do this has yet to be detailed and must be done at a range of geographic scales. Because the strategy is underpinned by various assumptions the net benefits to society as well as on the provision of ecosystem services must be measured.*

4. Seed and feed are the cornerstones of the Improving Sustainable Aquaculture Technologies MTP program. It is expected that the research agenda for these two components will be principally defined at the level of the target countries, but defining such a research agenda will not be that straightforward as the evaluation in the two countries makes clear. Currently, in Bangladesh it appears that fish nutrition is the principal limited factor in pond productivity, but it is not clear that there is a research agenda associated with purely feeds; rather it would appear to be an interaction between feeds and other management components. In Malawi the primary constraint seems rather to be the limited growth performance of the three indigenous species of tilapia. Does that justify investment in a breeding program and if so, for which species? Similarly, in Bangladesh, assuming that aquaculture moves to a higher level of pond nutrition, will that justify investment in breeding, and if so would that be done by the public rather than the private sector, and what would be the target species? These interacting constraints between seed, feed, and also fish stock management set up something of a moving target in terms of defining a research agenda in this area as aquaculture intensifies, with a question of how that research agenda is defined? The MTP strategy needs to go to another level of detail in terms of how research in the area of seed, feed and stock management will be carried out over the next five years.

***Agreed.*** *We broadly agree with the analysis and conclusions and believe that the interactions between seed quality, including genetics, and feed<sup>2</sup> are key to increasing productivity. Research priorities will need to be country specific, guided by a sound global research agenda.*

5. From the outline above, the following major technical areas are recommended for future WorldFish research.
  - a. It is recommended that research continue with herbivorous and omnivorous species in pond-based semi-intensive fish culture. Generic technologies exist for semi-intensive pond management with optimum pond fertilization and supplementary feeding yielding about 5 and 10t/ha, respectively. WorldFish should undertake applied research to aim for these targets depending on context, as this is the most cost-effective way to produce relatively cheap fish by small scale farmers and SMEs for national food security.

**Partially agreed.** Given current levels of fish production by small-scale producers, fish feeds, as defined in footnote 2, are undoubtedly the critical issue limiting pond productivity. There has only been one systematic attempt to do this; the USAID-funded CRSP project, which focused on Nile tilapia, operated across many countries and over several decades and cost many millions of dollars investment. No such concerted investment has been made to generate similar information bases for other farmed aquatic species.

*Profitability is a bigger driver than productivity. The question of how to maximize profits is compounded by the fact that feed types and costs vary from one country to another and over time. Market preferences for farmed fish, season, and costs of getting produce to market in good condition, determine income.*

*Nonetheless, for many farmed species there is sufficient published information to derive a restricted set of technologies to refine with producers through a programme of participatory action research. Development of simple, spreadsheet based tools can help optimize production alternatives. However, this approach to generating the biotechnical base upon which to refine technologies to suit farmers' assets and objectives needs to be much more explicitly set out in our strategy for sustainable aquaculture as elaborated in our MTP.*

- b. Complete formulated and pelleted feed is required for cage culture currently being considered for promotion by governments in Bangladesh and Malawi. It is recommended that WorldFish be involved only in applied research with farmers as it has no comparative advantage to research the development of cost-effective 'vegetarian' pellets without fish and fish meal dietary ingredients.

**Partially agreed.** We have no comparative advantage in conducting research on feed composition for cage culture and have no intention to do so, but we do require access to the information. For cage aquaculture to fulfil its considerable potential to provide sustainable improvements in food security and provide equitable benefits to riparian communities requires that we can quantify waste production and incorporate the data into realistic, useable ecosystem-based capacity models. Feed formulation and method of manufacture help determine waste loadings. We would seek to work with ARIs and NARs to obtain these data.

- c. Research is not required on suitable species for small-scale aquaculture in Bangladesh but the voluminous research base on the three major farmed indigenous species of tilapia in Malawi needs to be reviewed critically. On-station experiments need to be conducted with the three tilapias to determine their growth and breeding characteristics under optimal semi-intensive conditions.

**Agreed.** For Malawi, the reported growth performance of the three most widely cultured species – *Oreochromis karongae*, *O. shiranus* and *Tilapia rendalli* – appears to be highly variable. Because research on pond culture of indigenous species was dependent on development project funding no systematic evaluation of performance of species, especially under optimum pond conditions, was carried out; instead, technologies were developed from limited data sets from on-farm trials, augmented by data from on-station trials that were focused on a very different agenda (i.e. maximizing production from low-input systems).

*It is accepted that there is an urgent need to critically review published results from pond trials and to draw up a plan for on-station trials at Domasi, complemented by on-farm trials, in order to better determine the biotechnical and economic basis for production.*

- d. Genetic improvement programs are less important in general for improving the productivity of small scale farmers than improved nutrition. Genetic improvement of fish has more relevance for large than small scale aquaculture but Malawi is a special case as the exotic Nile tilapia should probably not be introduced into the Lake Malawi watershed which covers most of the country. It is recommended that the genetic improvement program in Malawi be continued but future direction in terms of the most appropriate species for poorer and SME farmers be informed by the results of on-station research.

**Disagree.** To state that genetic improvement programs are less important for improving productivity of small scale farmers than improved nutrition is to oversimplify the highly complex interactions between genotype, environment, farm management, and economics and markets. Two separate issues in particular are confounded. The first relates to the environment in which selective breeding is carried out. There is abundant published evidence from research trials conducted with partners in Malawi, Egypt and elsewhere that genetic improvement programs carried out in both feed-driven and fertilized systems produce faster growing fish. The second issue relates to whether poor farmers can benefit from genetically improved fish. It is argued that in small ponds, where poor farmers typically stock small numbers of fish, the genetic quality and fitness of fish stocked is of particular importance. The economic benefits to producers, including those constrained by pond inputs, have yet to be fully explored but are accorded a high priority in our evolving research agenda.

- e. Pond stock management to minimize breeding of tilapias in the pond and to maximize the pond's carrying capacity in terms of available nutrients and space should be researched in Malawi using various combinations of single and multiple stocked and harvested ponds and hapas in ponds.

**Agreed.** Both on-station and on farm trials are needed not only to optimize pond stock management but also to identify constraints to farmers in adopting this technology (e.g. lack of fry for multiple stocking, costs of investing in hapas, technical know-how) and the identification of practical, cost-effective interventions.

- f. Research on decentralized seed production should continue, particularly research should focus on maintaining the genetic quality of seed available to farmers and ensuring that farmers have timely access to large fingerlings. It should also explore ways to certify quality seed.

**Agreed.** *Research is currently underway in Bangladesh, but lessons learned need to be shared with those working in Malawi and elsewhere.*

6. Research on resource bases for aquaculture<sup>3</sup>

- a. Improved semi-intensive aquaculture will require increasing use of off-farm sources of fertilizers and supplementary feeds as farms are usually unable to specifically farm crops to feed fish due to insufficient area. Research is required both strategically and nationally on sources of manure for fish pond fertilization from the expanding poultry industry and on brans and oil cakes for supplementary feeds.

**Agreed.** *This needs to be explicitly set out in both our MTP and the research programs developed at country level.*

- b. Water is becoming an increasingly scarce commodity, especially with global climatic change likely to reduce the amount and regularity of rainfall. Earlier WorldFish research demonstrated the benefit of fish ponds, essentially on-farm reservoirs, for watering vegetables. Strategic research should explore the relative benefits of using water for fish and crops, and larger scale integration of aquaculture with engineered water infrastructure such as reservoirs, irrigation canals and crop irrigation command zones.

**Agreed.** *A program on water productivity research, funded through the CPWF, is already underway in the Nile Delta and further funds are being sought to develop this research in Egypt. Two publications, one on the development of a framework that facilitates comparisons of social, economic, nutritional and environmental benefits among different food producing sectors, the other on water productivity and poverty in the Nile Delta, are planned for publication later this year. A further grant application for work on rainwater harvesting and aquaculture in semi-arid areas of southern Malawi is currently under development.*

- c. A specific researchable resource issue is the relationship between rice farming and aquaculture, both positive and negative social, economic and technical issues concerning the integration of fish with rice and the conversion of rice fields to fish ponds.

**Partially agreed.** *We note the review team's concerns and recommendation. WorldFish and partners have already carried out some research in this field (e.g. through the CPWF program in the Sunderbans area of Bangladesh and in areas of coastal Vietnam). In conjunction with outputs from water productivity research this should facilitate context specific evaluation in focal countries. At present however we do not see this as a major area for future investment.*

7. Within the MTP at least one output for Markets, for Aquaculture Technologies, and for Aquaculture and the Environment focuses on tool development, primarily for improved decision making. For many of the NRM Centers in the CGIAR this has been a traditional response to the need to produce international public goods. However, the proof of tool and methodology development is the extent to which they are utilized and the improvement in decision making and the associated increase in efficiency that is usually associated with them. The Recommendation Domains methodology and RESTORE are two examples of tools that were under review by the team. The team had very little evidence that these tools were being used by WorldFish country programs, much less by partner institutions. Tool development is not an end in itself, but as is shown in the MTP, they must be applied by partner institutions in order to achieve the development outcomes which they target. Given the focus on tool and methodology development in the current MTP, it is recommended that tool development by WorldFish (and other NRM centers) and their utilization by partner institutions be reviewed as input into effective design, utilization, capacity building, and ongoing tool development and support.

***Partially agreed.** We reviewed RESTORE at the 2008 SAC meeting and concluded that while it was a useful research tool and provided a good means of data capture and storage for pond production trials it was time consuming to use and was of limited value in a development context. The Recommendation Domains project was partly about proof of concept and partly concerned with capacity building, in both of which we believe the project was highly successful, and only in part about establishing uptake by partners. However, the RD project only finished just over a year ago and we know interest in its use is high among some partners. We agree, however, that tool development must be demand driven and projects must incorporate explicit plans for securing adoption and use (scaling up and out).*

8. The review team recommends that WorldFish does not terminate its work on development projects but rather should attempt to achieve more of a balance between research and development projects and the portfolio developed within more of a strategic framework. This should lead to the potential for research hypotheses to be explored, even within the context of development projects. The review has suggested how such a research design might be integrated into development projects in the case of extension, but this also applies in the areas of markets and SME development.

***Agreed.** In view of our Development Challenges and in the light of present levels of support for long-term, multidisciplinary applied research we must continue to seek to maximize opportunities to learn through development funding. However, in our evolving prioritization of the organization's purpose and goal, and the consequent need to focus on specific countries and research priorities for development impact, the need to conduct research through, and in support of, development are becoming clearer. We believe that this will present more opportunities to achieve the balance between development and research that is being sought.*

*Research through and in support of development is poorly coordinated and opportunities to explore means of overcoming market constraints in particular are not being sufficiently explored or learning disseminated through creation of IPGs. The revision of our current MTP will also be used as opportunities to tackle this issue.*

9. Understanding the evolving constraints on farm level productivity, the interactions between seed, feed, and farmer management, and the conditions under which farmers will increase investment in aquaculture have been dominant themes throughout this review. A significant amount of pond data is collected in each of the projects in the pond monitoring books, but this shifts to another group of farmers after the usual three year period of the project and little of this data is actually analyzed. Moreover, the reliance on evaluating technical efficiency is a relatively limited tool in getting insights into these issues. It is recommended that WorldFish review its farm level monitoring protocols and the analytical methods that support them with a view to generating a system that can more effectively track changes in farm productivity and investment over time and understand the constraints on further increases in both productivity and investment.

**Agreed.** *It is accepted that almost all monitoring work we do at present is project specific: once a project is finished, monitoring ceases. There is a case for having a few long-term study sites where we track changes in farming systems and farm performance over time, thereby providing a backdrop against which specific project interventions can be measured. Such an exercise must be carefully designed and is costly and is probably best pursued some sort of through sharing with partner NARs. An alternative, although less powerful, is to adopt a Before, After, Control and Impact (BACI) design, although it too has practical and cost implications – e.g. the cost of monitoring both control and impact sites for, say, a year prior to intervention.*

10. Introducing more of a balance in the project portfolio between research and development projects would require changing the nature of institutional partnerships, which currently depend primarily on joint work with NGOs—apart from some components of the ARDEP project in Malawi. WorldFish will have to assess how an expanding research agenda can be accomplished within the context of significantly reduced capacity of national partners to carry out the more biological and systems research and an increasing need for an evolving set of skills in the area of social science. The options are for WorldFish to build such capacity in their own country offices—some of which may only require shifting responsibilities from project management—, developing a medium term capacity strengthening strategy for key national partners, or sourcing non-traditional partners both inside and outside the target countries.

**Partially agreed.** *While research capacity in Africa appears to have shrunk we are not so convinced that this is the case in Asia. Nevertheless, the issue has become more sharply focused as a result of present efforts to focus our activities and improve our impact at country level. As part of this process our reassessment of the countries where we work explicitly recognizes the issue of partner capacity and there is a commitment to resourcing countries according to those with strong capacity to deliver, or where we believe this can be developed.*

11. To what extent would such changes shift WorldFish from its mission to reduce poverty and hunger through fisheries and aquaculture? Moreover, in both countries there appear to be widening gaps and perceived conflicts between policies directed to increasing the role of aquaculture production in national food security and those directed to using aquaculture for poverty alleviation. WorldFish needs to demonstrate how both objectives can be pursued at the same time and reinforce one another. This, however, requires a more detailed understanding of the pathways through which an expanding aquaculture impacts the poor. The objective is not to demonstrate that aquaculture can have impacts on poor households, but rather where the largest impacts can be obtained and how through investment options these can best be achieved. This is more complex than counting the households that rise above the poverty line in development projects—although even this has not been done—and is in turn tied to an assessment of poverty impacts of the strategic choices partially outlined in this review. Assessing poverty impacts is central to any research agenda of WorldFish but at present the Center does not appear to have a framework by which that is done within the target countries.

***Agreed.** It is essential for WorldFish to assess both its performance in terms of its impacts on the two Development Challenges it has set itself and the outcomes resulting from each of the six MTP projects in order to help us understand which aspects of our work have greatest impact and whether our program and related projects need re-focusing over time so as to further increase the contribution we make to development. Secondly, we are accountable for funds that we spend, and assessing impacts can be used to demonstrate to our funders that our work provides good value for money and is worth supporting because of the contributions we can make to development and the MDGs.*

*In order to measure impacts the Center has just completed a comprehensive review of its impact monitoring, has drafted global, Development Challenge and MTP project level targets and will conduct a 2-day training exercise for key staff in early April 2009.*

#### **Overall Response by the Center**

The present CCER provides a very constructive assessment of the Center's work in small-scale aquaculture. While it has necessarily focused on only a small part of our aquaculture portfolio we believe that it has targeted the right issues and provided recommendations with which we are largely in agreement. In view of this we are building on the results of the CCER as we review the Centre's aquaculture research priorities. The analysis will be discussed with the Centre's SAC and conclusions reported to the Board. We will then build on the analysis and the recommendations of the CCER in preparing the MTP 2010-12."

#### **Agenda Item 18: REVIEW AND APPROVAL OF HUMAN RESOURCES POLICY**

The Corporate Services Director introduced this paper and informed the Board that the Centre is currently reviewing the human resources policy and would like to recommend that the policy is harmonized at all levels of staff. The Board agreed to the immediate recommended changes but requested Management to complete the benchmarking exercise to include all benefits and present this to the Board for approval at the third Board meeting in November 2009. The Corporate Services Director informed the Board that HRU has started the salary benchmarking survey and that this would include the benchmarking exercise for benefits. It will take approximately 4-6 months. The Board noted the timeline to complete the full benchmarking exercise.

It was noted that the other foreshadowed recommendations would be presented at a future meeting for formal approval.

There was a discussion on the desirability of switching from per diem allowances to reimbursement of actual expenses. One Board member pointed out that in one case where this had been trialed, it resulted in a major administration burden.

While there was significant concern that the revised policy could be increasing the overall benefits of staff beyond what was desirable, it was agreed that the most significant changes were being proposed for a future meeting. These would be considered in light of the results of the benchmarking exercise.

**Board Decision:**

- **The Board approved Management’s recommendation for implementation of the following policy. (Board Action 40-6)**

DESCRIPTION	PROPOSED RECOMMENDATION
Annual Home leave Travel allowance (Expatriate Cost Reimbursement)  Effective: Jan 2009	<ul style="list-style-type: none"> <li>▪ All expatriate employees and their approved dependants each receive one economy flight to their home base per year. Flights need to be economy only and by the most direct route and by reputable airline.</li> <li>▪ Staff are provided with reimbursement up to the cost of the Centre purchased fare.</li> <li>▪ Regional category is abolished.</li> </ul>
Shipping Entitlements (Expatriate Cost Reimbursement)  Effective: January 2009	<ul style="list-style-type: none"> <li>▪ Single – 50 kg by air plus max of 1 x 20’ container by sea</li> <li>▪ Married – 50 kg air per person plus max of 1 x 40’ container by sea</li> <li>▪ Regional category is abolished</li> <li>▪ No more storage option</li> <li>▪ Expatriate employees need to arrange a minimum of two quotations from shippers. The centre will select one and agree with employee.</li> <li>▪ The Centre will pay for insuring household effects during shipping.</li> <li>▪ In the event that expatriate employees choose not to ship household effects, the cash allowance shall be equivalent to the shipment costs as determined by the Center’s HR, of the point-to-point shipping or up to maximum of US\$5,000, or whichever is less. In this event, the cost of any return shipment will not be paid.</li> </ul>
Children Education Costs (Expatriate Cost reimbursement)  Effective next school term.	<ul style="list-style-type: none"> <li>▪ It is proposed that the allowance is made on 100% basis on school fees at a defined school which covers direct costs of schooling like tuition and normal fees,</li> </ul>

	<p>text books and non-optional field trips. This excludes extra-curricular activities and the Center is the final judge of what constitutes extra-curricular activities.</p> <ul style="list-style-type: none"> <li>▪ Education Allowance – Alternative School Location. Expatriate employees can send their children to international schools at their Duty Station or to schools elsewhere. If they send their children to schools elsewhere the Centre will pay a sum up to maximum of 100% of the cost of sending their children to a typical international school at the Duty Station decided by the Centre.</li> </ul>
<p>Vehicle Allowance Effective: April 2009</p>	<ul style="list-style-type: none"> <li>▪ Vehicle allowance is abolished for future staff.</li> <li>▪ The proposal is to monetize the US\$300 into the basic salary as the principal is everyone (expatriates or national staff) need to come to work.</li> <li>▪ For locations where vehicle allowance is a legal requirement, such allowance will be incorporated into the salary scale. A separate table indicating amount allowable for each grade will be displayed.</li> <li>▪ Car loan up to 100% of the cost of vehicle and limited to one time in staff employment. This is at no additional cost to the Center while reducing burden to staff having to advance the 25% on car price upon arriving new duty post. It is also proposed to increase the car loan amount to maximum of US\$20,000 due to rising cost of vehicles.</li> <li>▪ The vehicle loan must be repaid within the duration of the first employment contract and fully repayable on departure / resignation. The centre does not charge interest but imposes an administration fee of 5% of the loan.</li> </ul>
<p>Pension harmonization for all staff Effective: January 2009</p>	<ul style="list-style-type: none"> <li>▪ Propose to harmonize NRS &amp; IRS pension plan for all staff to 15%.</li> <li>▪ For current IRS any additional existing percentage more than 15% is to be factored into basic salary effective April 2009.</li> <li>▪ For NRS: In the event additional employer contribution is not allowed; the additional amount will be kept in staff respective saving plans.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Based on affordability it is the /Centre's intention to increase pension contributions to 20% in the future and investigate an off balance sheet plan for all employees.</li> </ul>
<p>Annual Leave carry forward Effective: January 2009</p>	<p>We are proposing to reduce the carry forward leave, to provide staff:</p> <ol style="list-style-type: none"> <li>1. Quality of Work Life</li> <li>2. Balance of family and work</li> <li>3. Reduce Centre's financial exposure</li> </ol> <ul style="list-style-type: none"> <li>▪ The recommendation is a gradual reduction for all staff as follows over the next three years: 2009 - reduce carry forward to 30 days 2010 - reduce carry forward to 20 days 2011 - reduce carry forward to 10 days 2012 - reduce carry forward to 5 days</li> <li>▪ Only one exception, employees can carry forward for 1 year up to a maximum of 10 days over the maximum for special planned trips, such request is to be sign-off by Director of Corporate Services.</li> <li>▪ No encashment of annual leave is allowed for any occasion. Employees are advised to plan their leave upon departure / resignation.</li> </ul>

- **Management to complete the benchmarking exercise to include all benefits and provide the Board with the results and recommendations at the next Board meeting. (Board Action 40-7)**

**Agenda Item 19: REVIEW AND APPROVAL OF RESEARCH ETHIC POLICY FOR SOCIAL RESEARCH WITH HUMAN SUBJECTS**

The Director Science Coordination introduced this paper on behalf of Dr Nireka Weeratunge.

**Board Decision:**

**The Board approved the code of ethics policy for social research involving people subject to some minor corrections on the forms, subject to minor edits to be provided by the Deputy Director General. (Board Action 40-8)**

**Agenda Item 20: UPDATE BY DEPUTY DIRECTOR GENERAL**

The Deputy Director General introduced his report to the Board. The Deputy Director General's report focused mainly on the progress and implementation plan of the Medium Term Plan 2009-2011. The Deputy Director General informed the Board that the Science Advisory Committee was happy to note the good progress made throughout the research

programmes. However, the Centre still has a long way to go in order for the Medium Term Plan to become fully integrated with the Centre strategy project portfolios.

The Board noted the report and congratulated the Deputy Director General on the good progress made.

#### **Agenda Item 21: REVIEW OF SCIENCE ADVISORY COMMITTEE REPORT**

The Deputy Director General presented the Science Advisory Committee Report and Management's responses as listed below:-

The SAC was happy to find demonstrable progress throughout the research programs of the WorldFish Center. As noted in previous reports, the MTPs are well articulated and the six research areas define the work done by WorldFish very well. The SAC find there is a culture of collegiality and esteem for the quality of the work done by the Center Staff. However, there still seems to be a challenge to engage all researchers in the development and implementation of the research programs of the organization.

#### **Management's Response:**

- **Management welcomes the report of the SAC and the insights that it has provided.**

The SAC would like to see a clearer relationship between the MTPs and specific projects. In particular, it should always be clear what the expected output is from the projects and how they contribute to the goals of the MTPs.

#### **Management's Response:**

- **This was recognized as a weakness in the way in which research was presented according to MTP projects and not sufficiently well contextualized under the centre's Development Challenges. Management will address this through a different structure to the agenda of the next SAC and through more explicit linking of major research activities (Centre projects) to the broader MTP projects and outcomes.**

The SAC appreciated the Centre's efforts to streamline the process of undertaking scientific research through the use of the flags and also the discussion of the roles and responsibilities. To encourage these positive trends, the SAC support continued integration of the junior staff into the strategic thinking about the development of research programs, and mentoring to become scientific leaders in their own right; the SAC believed the same issues pertain to the incorporation of post-doctoral scientists. In this regard, the SAC was especially pleased to see presentations being made by post-doctoral scientists and looks forward to the growth in the cadre of post-doctoral scientists working throughout the WorldFish Center. The SAC encouraged the recruiting of young scientists from program countries. This was one of the best ways to build capacity and maximize the long-term impact.

#### **Management's Response:**

- **Management welcomed the comments on integration of junior staff and would continue to work in this direction. Management noted however that staff at all levels, from interns upwards, have been actively involved in the global and regional science fora in 2007 and 2008 and in preparation of the Centre's MTP.**
- **Management agreed that the Centre needed to continue to strengthen efforts to recruit young scientists from program countries. However Management also noted that the Centre had recently recruited such scientists from Cambodia, Malawi, DR Congo, Bangladesh, Solomon Islands, Indonesia and Malaysia. Cost limitations mean that the SAC generally do not meet with these staff.**

The SAC was pleased to see the trend in terms of better quality papers. The SAC wished to reinforce the recommendation from the last year's SAC about the importance of strategically aiming to publish a couple of major papers in high profile journals. This would be a means of influencing the larger policy arena and agenda setting by donors. The SAC would encouraged staff scientists to be strategic in seeking out collaboration with scientific colleagues who had already been successful in getting published in journals such as *Science* and *Nature*.

#### **Management's Response:**

- **Management broadly agreed with this recommendation and would continue to pursue better publications in higher profile journals. With particular reference to publishing in *Science* or *Nature*, while laudable, the Center needed to balance the need to publish important and influential work with papers that have highest profile. The two were not always synonymous.**

The presentations and the list of co-authors on several papers seem to indicate that PESS is now much better integrated. This is a development that SAC applauded and encouraged further integration, particularly in the aquaculture area.

#### **Management's Response:**

- **Management noted and agreed with the SAC's comment on progress with integration of PESS. Management noted however that we are working towards greater integration of all three Disciplines as required to pursue each of the Development Challenges and MTP projects.**

The SAC noted the number of projects with small budgets. Unfortunately, this diluted efforts of the scientists to maintain a research profile. The SAC encouraged the scientists to be more strategic in seeking opportunities to obtain larger grants.

#### **Management's Response:**

- **Management agreed that in general larger projects make more efficient use of science resources. While Management is working to increase the size of projects, Management is also working to improve this science efficiency in other ways, notably through MWBs 1 & 2.**

## Comments on MTPs

The research presented during the meeting appeared to be of good quality and has the potential to be published. The SAC applauded the efforts of the scientists to address more broad and relevant issues and to be forward thinking in the big questions being investigated. However, the SAC felt that it was shown the “cream of the crop” and would like to have seen the full range of research activities.

### Management’s Response:

- **While the selection of activities to discuss with SAC was based on what Management believed would be most useful for the Center at this stage in our work, Management understood the perception of SAC. Management would endeavour to address this in future meetings by providing a more comprehensive overview of our research, including an analysis of areas where we believe we need to do more to fulfil our potential.**

The SAC was pleased that scientists were seeing the need to have their work closely linked to direct impacts. For example, the MTP6 presentation (Resilience in Practice) noted the need to operationalize management approaches for small-scale fisheries in the developing world. The SAC endorsed the views presented that the broad concepts were understood but the tools to deliver effective management on the ground have not yet been developed. The SAC encouraged the Center to seek opportunities to implement, test and elaborate the accepted ‘best practice’ frameworks in real case studies involving the legitimate stakeholders. Case studies should span a diversity of fisheries to serve this purpose. Such case studies could include Solomon Islands, Aceh and/or Bangladesh. This would be the only means of moving from the extensive but essentially untested theoretical frameworks into practical implementation guidelines.

### Management’s Response:

- **Management agreed that the pursuit of practical application of ‘best practice’ frameworks and other tools was an essential step. This was a major focus of work on MTP 6 and we were actively pursuing opportunities to increase our investment in this.**

The SAC applauded the recognition of synergies between research projects, for example, MTP1 (Global Drivers of Change), MTP5 (Aquaculture and the environment, specifically ‘water productivity’), and MTP3 (Multi-sectoral Multi-Level Governance), all point to the importance of a strategic approach to investigate the value and relative priority of small-scale fisheries and aquaculture in a world of limited water resources and threatened by climate change. WorldFish is well-placed to play a key role in developing and implementing, with suitable partners, a broad study that considers the value of small scale fisheries (SSF) and Sub-Saharan Africa (SSA) in the optimal use of this scarce resource in one or more representative developing country case studies.

### Management’s Response:

- **Management would continue to pursue synergies between research projects and MTP projects. This would include furthering our work on climate change, water management and fisheries and aquaculture.**

During the presentations relating to MTP2, the SAC were interested to learn about the Centre's attempts to hire a trade economist. Given the intense competition for individuals with this specialization, the SAC recommended that the Center consider working with a senior scientist consultant to help frame the research agenda and that it employs a post-doctoral scientist to execute the research.

In the presentation relating to MTP3 the SAC appreciated hearing about the effective way that the research staff was able to creatively reorient a project that had been in trouble. The SAC supported the efforts to institutionalize impact assessment into the Centre's research program. It was important to recognize its usefulness and to ensure that it was done in a cost-efficient manner. The SAC recommended that impact assessment be given its own separate budget line in project proposals. The SAC also recommended that attempts to develop global indicators not consume a lot of resources and staff time.

**Management's Response:**

- **Management welcomed the SAC's support for our work on these issues and is currently pursuing a number of ways through which to do so. First priority would be given to project level impact assessment and Management would look at several ways to fund this, including incorporation of costs into individual projects. Management would also pursue this at the level of each MTP (programme level) and at the level of the Development Challenges. Management would also pursue the development of global indicators but noted the advice to be careful of the resources required to do this.**

The SAC comments about MTP4 were embedded below in the section related specifically to the CCER on Aquaculture. The SAC noted that Aquaculture and the environment (MPT5) were the least worked out of the six MTPs. The SAC looked forward to further elaboration and implementation of this MTP since it was essential for ensuring the sustainable development and consumer acceptance of aquaculture.

**Management's Response:**

- **Management agreed that MTP 5 required further elaboration and committed to doing so.**

**Comments on the CCER on Aquaculture**

The CCER Aquaculture reviewed past project portfolios in Bangladesh and Malawi. The presence of WorldFish in these countries has helped in raising standards of 'depth of knowledge' and 'quality of science'. Certainly Bangladesh, but more recently Malawi also, has productive research groups at universities.

The SAC supported the main recommendations of the CCER except we disagreed with the CCER team's questioning of the importance of genetic improvement programs. The SAC supported the Centre's responses to the recommendations. The SAC wished to highlight the world class quality of the Centre's genetic improvement programs, particularly, the GIFT.

**Management's Response:**

- **Management welcomed the SAC's overall comments on the CCER and the specific recommendations on SMEs and genetic improvement.**

The SAC commented on two key issues raised by the CCER.

### 1. Shifting to a focus on SME

The SAC generally supported the most significant CCER recommendation, i.e., to reorient the program more towards small to medium enterprises (SME). However, making such a major shift should be guided by solid empirical evidence and, hence, the SAC fully endorsed the AQ discipline's idea to first conduct a global review of the outcomes of development projects aimed at SME and those aimed at the poorer smallholders or households; and second, to use the review's conclusions to frame new research that will explicitly test the impact of aquaculture projects aimed at SME versus those aimed at the poorest people. The SAC agreed that the review should examine development projects in aquaculture and other areas of agriculture and be done in collaboration with PESS. Furthermore, the SAC encouraged planning this review from the outset so that it has a high probability of being published in a high profile journal because it could have a major influence on the policy and donor agenda.

#### **Management's Response:**

- **Management agreed that this was a high priority and would pursue forcefully in 2009.**

New work on SMEs needed to go hand-in-hand with research on development and operation of input and output markets. This is essential if the Center is to contribute to realizing the promise of SMEs. This means that the Center needs to bring on board researchers with expertise in behavioural economics, marketing and entrepreneurship to address topics such as: processing, market development, labelling, and distribution. This is an example of the broader need to strengthen the integration of social science expertise with the aquaculture discipline. The integration needed to go beyond the thinking implied in the Centre's response to Recommendation 1c in the CCER. A good example of internal synergies was the potential for linking the conclusions made in the fish trade article to developing domestic and regional African markets for aquaculture products.

#### **Management's Response:**

- **Management agreed that this integrated approach was essential and would be pursuing.**

The shift in research focus from the household level to the SME level should explicitly consider the kind of systems involved. This shift does not necessarily require that the Center shift from extensive and integrated systems to intensive-fed or monoculture systems. For example, SMEs could integrate agriculture and aquaculture elements between enterprises within a geographical area.

#### **Management's Response:**

- **This was also agreed and Management would clarify in our review and future approach.**

### 2. Genetic improvement programs

The track-record in agriculture clearly shows that genetic improvement is a key pillar of effective agricultural development and there was no reason to think aquaculture is an exception. However, the SAC encouraged taking a highly strategic and integrated approach

to building on the Centre's outstanding genetic improvement programs and offer three suggestions below in this regard.

- a. Explicitly take into account the role of genetic improvement and target traits for selective breeding as the AQ discipline designs new research aimed at SME aquaculture.
- b. Place high priority on research for effective dissemination of genetically improved line. The SAC applauded the staff's recognition of this need, which came across in the presentation on MTP4. Now, there is a need to assemble the relevant expertise to design and carry out dissemination research and implementation. In addition to collaborating with existing PESS staff, this would probably require bringing in expertise in agricultural technology diffusion and marketing/entrepreneurship.
- c. The SAC recommended enhancing the genetics group's excellent work by pursuing research to define and substantiate the contribution of genetic improvement to the development and expansion of small scale aquaculture for the poor and less poor.

**Management's Response:**

- **Management agreed with these recommendations and would seek to pursue as key components of our future work on genetic improvement in aquaculture.**

**Comments about the SAC Process**

The SAC would appreciate a more comprehensive set of briefing materials. For example, it would be helpful for future meetings to have project summaries (and, particularly, their relationships to the MTPs), publication lists from the past few years, and a description of future plans. The SAC encouraged the development of a publication list that categorized output by journal category (e.g., refereed or not), etc. It would also be helpful to know the relative effort levels for different projects in order to better understand priorities. This information should be maintained and presented in an historical way on the SAC Website.

**Management's Response:**

- **Management would endeavour to provide more background material on the SAC portal, including historical publications and reports to better provide the SAC with a basis for assessing progress through time. In line with discussions with the Board, Management would hold a teleconference with the SAC prior to their meeting to establish Terms of Reference for each meeting and to better focus their attention where the Center feels their insights are most needed.**

The SAC found that the opening presentations of MTP4 and MTP5 were very effective because they gave an overview of the past, the present and the future of the MTPs, as a whole. In addition, they gave the context within which it was easier to see how the different projects contributed to the achievement of the MTP goals. This approach should be adopted for all presentations at future meetings.

**Management' Response:**

- **Management agreed with these comments on the presentations on MTP 4 and MTP 5 and would where appropriate adopt a similar approach in future for other presentations on our work under the MTPs.**

The SAC felt that it would be more effective if future meetings could be conducted either with the Science Forum or with other larger groups of scientists who are working at different levels of program areas. This would give the SAC better exposure to the scientific culture and full range of research efforts, both those that are flourishing and those that need improvement. This would allow the SAC to give more incisive feedback to WorldFish Center.

**Management's Response:**

- **Management understood and welcomed the value that the SAC attached to these interactions with staff. While it was not always practical to have SAC meetings coincide with regional or global science fora, Management would try to link these where possible. Where this is not possible Management would try to provide SAC with a suitable overview of the centre's work by providing the documents requested.**

The Board noted and accepted the Management's responses on the SAC report.

**Agenda Item 22: REVIEW AND APPROVAL OF DRAFT MTP INCLUDING UPDATES ON EPMR IMPLEMENTATION AND SCHEDULE FOR FINALIZATION**

The Board was informed about the schedule of the preparation of the MTP 2010-2012. The Board agreed with Management's recommendation to approve the final draft MTP via email on June 9, 2009.

**Board Decision:**

**The Board approved the approach and timeframe used to develop the MTP 2010-2012 and the updates on EPMR implementation for inclusion in the MTP. Management will circulate the final draft MTP for the Board's approval via email on June 9, 2009. (Board Action 40-9)**

The meeting adjourned at 5.25 pm.

## **Risk Mitigation for Travel and Operations in High Risk Areas**

The full Board meeting resumed at 8.30 am on 3<sup>rd</sup> April 2009. During the Risk Mitigation training, the following management staff attended the session:-

- Dr Patrick Dugan
- Mr Wayne Rogers
- Ms Fok Siew Choy
- Ms Susheela Sabaratnam
- Miss Khoo Lay Keem
- Ms Maizurah Abdullah

Mr Robert Mackellar from Harmattan Associates gave a comprehensive presentation on guidelines for WorldFish Center's Personnel Risk Management Policy.

A Board member asked how exposed WorldFish Center is at the moment in terms of the overall staff travel and operations. Mr Mackellar responded that currently the risk is moderate but it is not too late for Management to consider precautionary measures.

Mr Mackellar also responded to a question raised by the Deputy Director General on how staff can take any security measure when travelling to high risk countries, for example, to Lagos. One of the ways that Management could take precaution is to use a Consultant who could get in touch with the authority in the country and set up some security measure like meeting at the airport upon arrival. At times, the Consultant would be able to use some intelligence like the MEDEX in some countries to arrange for security protection.

The Corporate Services Director responded to a question raised by a Board member on the future plans of WorldFish Center in relations to travel risk management. He informed the Board that Management would operationalize this guideline by end of 2009. Currently, the Regional Manager, Mr David Porras is working on the guideline and this will be channelled through the Human Resources Unit.

The Board requested Management to look into formulating a generic policy for all areas of operations rather than having different policy in different countries.

### **Board Decision:**

**The Board requested Management to provide a status update on the progress of formulating the risk management policy in the next Board meeting. (Board Action 40-10)**

The Chairman of the Board thanked Mr Robert Mackellar for providing such an insightful presentation on the travel risk management and also Management staff for their time during this session.

Management staff left the Board room at 9.30 am and the Board resumed the Board meeting with Governance Issues.

**Agenda Item 23: REVIEW THE RESULTS OF BOARD SELF-EVALUATION ASSESSMENT**

The Board noted the results of the Board self-evaluation questionnaire and agreed with the overall areas of strength and weakness identified. It was noted that there were no areas which scored in the lowest 2 categories. Considering the 4 areas with low average scores, it was agreed that the low scores in engaging with stakeholders and in knowledge of the Centre's science program were a direct and conscious result of the reduction in Board size. It was agreed that Management should be taking the initiative in seeking help from Board members to engage with key stakeholders. It was also agreed that the Science Advisory Committee was the appropriate body to maintain detailed understanding of the Centers science program. It was felt that the relatively low score related to the consideration of new programs or modifying existing programs was perhaps due to the wording of the question, since it was agreed that there was regular consideration of strategic programmatic directions and more specific issues related to country offices. The need for ongoing Board training was recognized but it was noted that this was regularly reviewed by the Board and that training issues were being addressed.

**Agenda Item 24: COMMITTEE REPORTS**

**Agenda Item 24a: Report of the Audit Committee**

The Chairman of the Audit Committee summarized the discussions and recommendations of the Audit Committee meeting. The Board made the following decisions based on its acceptance of the Audit Committee's recommendations.

**Agenda Item 4: Business Arising from the Minutes**

**Board Decision:**

**The Board noted and approved the matters arising from the Minutes. (Board Action 40:11)**

**Agenda Item 5a: Approval of 2008 Audit Report of WorldFish Center**

**Board Decision:**

**The Board approved the 2008 Audited Financial Statements and the changes to the notes to the accounts. (Board Action 40:12)**

**Agenda Item 5b: Review of 2008 Management Letters**

**Board Decision:**

**The Board noted and approved the 2008 Management Letters. (Board Action 40:13)**

**Agenda Item 6a: Review of Internal Audit Activity Report**

**Board Decision:**

The Board noted the internal audit activity report and approved the Internal Audit Plan for 2009. (Board Action 40:14)

**Agenda Item 7: Update on Risk Management Activities**

**Board Decision:**

The Board noted and approved the Risk Management activities. (Board Action 40:15)

**Agenda Item 9: Review the updated Approval Matrix**

**Board Decision:**

The Board noted and approved the amended Approval Matrix and the delegation of changes that fall within current management delegation to the Director General and Director of Corporate Services as append below.

- Line 1.1b remove the 'major ' word
- Line 6.1 should have 'x' marked under Director of Corporate Services
- Line 6.3 should not have any x markings
- Line 6.11a should include DG and Director of Corporate Services
- The column for Finance Manager should read Managers  
(Board Action 40-16)

**Agenda Item 24b: Report of the Governance Committee**

The Chairman of the Governance Committee summarized the discussions and recommendations of the Governance Committee meeting. The Board made the following decisions based on its acceptance of all the Governance Committee's recommendations.

**Agenda Item 5a: Appointment of New Board Members**

**Board Decision:**

- The Board approved the Governance Committee's recommendation that
- 1 new Board member should be appointed to start on July 1 2009; the recommended candidates, in order of priority, are Dr Judi Wakhungu and Dr Kallunde Sibuga;
  - additional member should be appointed to start on 1 January 2010; the recommended candidates, in order of priority are Mr Axel Wenblad and Dr Lori Ridgeway;

- The Board Chair should seek out additional information about these candidates (including informal enquiries, formal references, and formal interviews if appropriate) and report back to the Board via email with formal recommendations for each appointment. The Board should then agree by email on the final appointments based on the Chairman's recommendation.

**(Board Action: 40-17)**

**Agenda Item 5b: Consideration of Unfilled Board positions for 2009-2010**

**Board Decision:**

**The Board approved the Chairman's recommendation to appoint the following members to the Governance Committee.**

- Dr Asger Kej (Chairman)
- Dato Ahamad Sabki bin Mahmood
- Dr Wendy Craik
- Ambassador Remo Gautschi (ex-officio)

**(Board Action: 40-18)**

**Board Decision:**

**The Board approved the Governance Committee's recommendation to appoint the following members to the Audit Committee.**

- Dr Wendy Craik (Chairman)
- Ms Vimala Menon
- Dr Asger Kej
- Ambassador Remo Gautschi (ex-officio)

**(Board Action: 40-19)**

**Board Decision:**

**The Board approved the Governance Committee's recommendation to appoint the following members to the Board Awards Committee.**

- Ms Vimala Menon (Chairman)
- Dr Wendy Craik
- Dr Asger Kej
- Prof. Ayman Abou Hadid

**(Board Action: 40-20)**

**Agenda Item 7: Review of Science Advisory Committee (SAC) Membership**

The Governance Committee discussed the need to decide whether to reappoint the two SAC members who are completing their first terms at the end of the SAC meeting on 1 April. It invited comments from the Director General and the Deputy Director General on the performance of these members, and on the implications of making new appointments on the effectiveness of the SAC. It also received informal feedback from SAC members on the desirability of continuity of membership between annual meetings.

It was agreed that there was a need for continuity of membership, and of leadership within the SAC, which only meets once a year, and which has had a different chairperson for each meeting. It was agreed that Dr Kapuscinski and Dr Dupont should be offered renewed appointments of 3 years. It was also agreed that Dr Dupont should be reappointed as Chair of the SAC for one more year if she accepts to continue serving on the SAC for another term. The Committee agreed that members of the SAC should be entitled to travel via business class.

The Chairman spoke to Dr Anne Kapuscinski and she has shown interest and keen to be reappointed to the SAC for an additional term of 3 years term but Dr Diane Dupont declined the offer.

**Board Decision:**

**The Board approved the Governance Committee's recommendation that:**

- **Dr Kapuscinski be reappointed to the SAC for an additional term of 3 years**
  - **Dr Kapuscinski be appointed as the Chairman of the SAC for 1 year**
  - **Management to initiate a search for new candidates for recruitment to the SAC**
  - **SAC members should be entitled to travel via business class**
- (Board Action: 40-21)**

Management noted that Dr Diane Dupont has provided a potential candidate's name to the PESS Discipline Director, Dr Eddie Allison. Management should contact the potential candidate.

**Agenda Item 9: Nomination of Board Member to Attend the CGIAR Board Orientation Programme**

**Board Decision:**

**The Board approved the Governance Committee's recommendation to invite Ms Vimala Menon to attend the CGIAR Board orientation programme in Rome in November 2009. (Board Action: 40-22)**

**Agenda Item 24c: Report of the Executive Committee**

The Chairman of the Board informed the Board that the proposed agenda of the Executive Committee Meeting and the minutes of the 35<sup>th</sup> Executive Committee Meeting were approved. Discussion on 2009 financial situation was held and there was no issue on this subject matter as well as other matters pertaining to the 40<sup>th</sup> Board meeting agenda.

The Board noted the Chairman's report on the Executive Committee.

**Agenda Item 25: REVIEW AND APPROVAL OF 2008 AUDITED FINANCIAL REPORT**

The Board accepted and approved the 2008 audited financial report as recommended by the Audit Committee under the report of the Audit Committee in Agenda 24a.

**Agenda Item 26: REVIEW AND APPROVAL OF STAFF SALARY INCREASES FOR 2009**

There were considerable discussions on whether the pay increases recommended by Management were appropriate in the current economic climate. It was pointed out by Management that the increases for most staff (who had met expectations) would only be provided for cost of living increases. The Board indicated that it would prefer to provide only a partial adjustment for cost of living increases and that this could be reviewed in more detail once the salary benchmarking exercise had been completed.

The Board agreed to increases that were 35% lower than those suggested by Management. It was agreed that Egypt would be an exception (receiving the full recommended increase) since Management had already reduced pay rises to below cost of living increases.

The Board requested Management to continue with the benchmarking exercise on the entire staff's compensation and benefits and to review the remuneration policy.

**Board Decision:**

- **The Board approved the following percentage increases for base salary for employees who are rated as "Met Expectations" or higher.**

<b>COUNTRY</b>	<b>INCREASE PERCENTAGE</b>
<b>Global</b>	<b>2.93%</b>
<b>Malaysia</b>	<b>3.77%</b>
<b>Bangladesh</b>	<b>7.54%</b>
<b>Egypt</b>	<b>10%</b>
<b>Mekong</b>	<b>8.97%</b>
<b>Malawi</b>	<b>5.66%</b>
<b>Philippines</b>	<b>7.15%</b>
<b>Solomon Islands</b>	<b>11.25%</b>
<b>Zambia</b>	<b>10.79%</b>
<b>DRC</b>	<b>17.94%</b>

- The Board approved a further 3% increase in base salary for employees who are rated as “Exceeded Expectations”.
- The Board approved a further one-time bonus of 10% of salary for employees who have been rated as “Far Exceeded Expectations”.

**(Board Action: 40-23)**

**Agenda Item 27: DIRECTOR GENERAL’S PERFORMANCE EVALUATION – CLOSED SESSION**

The Board discussed the Director General’s performance evaluation in a closed session without the presence of the Director General and Management staff at 11.35 am. The Director General returned to the Board room at 12.15 pm and had a closed session with the Board of Trustees.

Management staff was asked to return to the Board room at 12.30 pm. The Board discussed the Director General’s performance and the Chairman of the Board agreed to provide a letter to the Director General summarizing the results.

**Agenda Item 28: REVIEW AND APPROVAL OF BOARD AWARDS TO STAFF**

The Board requested Management to provide a template with certain sets of criteria for applicants to fill in for future Board Awards nomination. Management should include in the Terms of Reference Board Awards for Team. It is of the discretion of the Board Awards Committee to award the Board Awards to either an individual and/or a team for future nominations.

**Board Decision:**

**The Board approved the Board Awards Committee’s recommendation to award**

- Dr Salah Mesalhy – Research Award
- Miss Teoh Shwu Jiao – Research Support Award
- Mr Visidh Koum – Research Support Award

**(Board Action: 40-24)**

**Agenda Item 29: REVIEW OF BOARD HONORARIA POLICY**

The Board reviewed the existing Board Honoraria policy and agreed that the policy remain unchanged.

**Agenda Item 30: ELECTION OF BOARD MEMBERS**

The Board approved the Governance Committee’s recommendation to appoint a new member in July 2009 and another new member in January 2010 as discussed under the agenda item 24b under the Report of the Governance Committee.

**Agenda Item 31: ELECTION OF SCIENCE ADVISORY COMMITTEE MEMBERS**

The Board approved the Governance Committee's recommendation to reappoint Dr Anne Kapuscinski as the SAC member for another term of 3 years and to appoint Dr Kapuscinski as the Chairperson of SAC for 1 year as discussed under the agenda item 24b under the Report of the Governance Committee.

**Agenda Item 32: OTHER BOARD MATTERS**

A Board member highlighted that the Board should send a letter to the Minister in Egypt and to reiterate the importance of having a Board representation from Egypt. The Centre did not have a Board member representation from Egypt for the past two Board meetings. The Chairman of the Board will discuss this matter with the Deputy Director General.

It was noted with regret that the Board had not had any member nominated by the Government of Egypt attending a Board meeting since November 2007. The Board expressed the hope that Dr Ayman Abou-Hadid would be able to attend the next Board meeting in July 2009.

**Agenda Item 33: TIME AND PLACE OF NEXT MEETING**

The Board confirmed that the 42<sup>nd</sup> Board of Trustees Meeting will be held in Penang, Malaysia from July 1-2, 2009 and reading day on 30<sup>th</sup> June 2009.

The venue of the 43<sup>rd</sup> Board of Trustees Meeting will be held either in Malawi or Zambia. Management will check with the Regional Office and confirm the feasibility of having the Board meeting in the African region from November 18-19, 2009.

**Agenda Item 34: OTHER BUSINESS**

There were no other items of business.

**Agenda Item 35: CLOSING REMARKS**

The Chairman thanked Management and staff for the preparation of the Board meeting. He commented that the meeting was very well organized and thanked the Board Secretary for the smooth meeting. The Chairman also extended his appreciation to Ms Emily Khor and her team in providing support to the Board during the 40<sup>th</sup> Board of Trustees Meeting.

The Chairman also thanked the Board members for their participation and contribution and closed the meeting at 12.55 pm.