

Community Based Disaster Preparedness

Lake Tempe in South Sulawesi was once called the “fish bowl of Indonesia”. While the lake annually supplied 40,000 tons of freshwater fish back in the 1970’s, chronic sedimentation has caused the lake to shrink to a third of its original size even during the wet season. Thousands of fishermen are now facing the loss of their livelihood. Intensified rains have increased the occurrence of overflow, flood and landslides in areas nearby sediment piles. To worsen the situation, rampant growth of water hyacinth or *eceng gondok* is hindering existing fishing activities, accelerating sedimentation and damaging homes after being swept into huge masses during floods. PMI has implemented a community-based disaster preparedness project to reduce the risk of damage by water hyacinths. Concrete poles were built as barriers to prevent the plants from obstructing livelihood activities and hitting the houses during flood events. In addition, community members were invited to learn how to make productive use of water hyacinth by using them to make handicrafts like bags, purses and sandals.



The Way Forward



PMI is firmly committed to further develop climate change adaptation measures and to integrate in all of its programs and sectors. Further vulnerability and capacity assessments, hazard/risk/vulnerability/capacity mapping, risk reduction planning, and climate change activities promotion in over 40 villages and 16 PMI branches in the provinces of West Java, West Sulawesi, Nusa Tenggara Timur, Nusa Tenggara Barat, Central Java, and DI Yogyakarta, have been planned for 2009 - 2010. The assessments will reflect the actual needs of the target communities and will enable PMI to accurately plan its interventions, including those related to livelihoods. PMI and Red Cross Red Crescent partners in Indonesia will tailor the specific focus of livelihoods assistance in each community to reflect the diversity of each region and the actual needs of communities. Through careful study of lessons-learnt from previous projects of a similar nature, PMI will further improve its projects and strengthen its capacity to promote climate change adaptation in all its activities.

Contact:
Palang Merah Indonesia (PMI)
Jl. Jend. Gatot Subroto Kav. 96
Jakarta 12790, Indonesia
Email: pmi@pmi.or.id

© 2009 Contents and photos/Palang Merah Indonesia and International Federation of Red Cross and Red Crescent Societies



Climate
Change | Livelihoods
Adaptation

Background



To the farmers of Indonesia, traditional calendars such as the *Pranata Mangsa* of Java and the *Palontara* of South Sulawesi that are used to determine planting and harvest seasons have been heavily disturbed by climate change. Indonesia is expected to experience changes in seasonal distribution of rainfall, with the general tendency for daily extreme precipitation to become more intense under enhanced greenhouse conditions¹. Abnormal patterns of seasons have brought reduced crop yield, but farmers don't know how to adjust their planting and harvesting schedule to become more responsive to the changes. For the poor and vulnerable communities, climate change is already an everyday experience. They are employed in industries that rely heavily on climate dependent resources such as agriculture and fishing, being hit the hardest by the increasing mean temperature and changes in the seasonality of rainfall. In the urban context, they are concentrated in low-lying areas where more frequent and severe flooding poses the risk of having to stop all livelihood activities.

The most vulnerable are not prepared to adapt to the negative impacts of climate change. For example, they are less likely to have access to risk-sharing mechanisms like insurance, and afford to live in robust homes prepared against flood events. Statistics produced by the Red Cross reveal that 22.5 people die per reported disaster in highly developed nations, while each disaster in countries of low human development claims an average of 1,052 people². Poverty reduction and sustainable livelihoods are essential, particularly for vulnerable communities, to the process of building climate change adaptation capacity. With its strong community networking at all national levels, Palang Merah Indonesia or PMI (Indonesian Red Cross) has addressed these challenges. By understanding how the local livelihoods are conducted and sustained, people are provided with the knowledge on how to better respond with their given resources.

Microfinance for Empowerment: Integrated Community Based Risk Reduction-Climate Change Project

PMI is working to assist the vulnerable communities for better preparedness for future disasters in Jakarta, an urban environment experiencing more frequent and severe floods as a result of climate change. Unfortunately, the low-lying areas are most vulnerable to inundations caused by tidal waves and riverine flooding are inhabited by Jakarta's poorest people. As a means of economic empowerment, PMI supported by Red Cross Red Crescent partners working in Indonesia, the Rabobank Foundation, and an Indonesian microfinance consultancy firm, Rekadesa, has been transferring knowledge of micro credit to the communities, which aims to help put the poor families on the path to building greater resilience. The project encouraged the community to establish a saving-and-loan cooperative, *Koperasi Simpan Pinjam* (KSP), which will be governed and operated by the community themselves. Members of the KSP can develop a monthly saving plan according to their household economical standing, and with the collective pool of savings, the KSP governance body can decide on giving small-scale business loans to those members who need to expand their business at a low interest rate. On the other hand, those members who do not need to borrow from the KSP, can also be encouraged to develop the practice of saving with high interest rates and receive training on household economy management and small-business planning. Giving

training on household economic management and assisting the establishment of community-based, self-managed, self-sustained saving and loan cooperative schemes, PMI is guiding the poor to help themselves become less vulnerable to the impacts of climate change induced disasters.



Collaboration towards Sustainable Livelihoods



The province of Aceh is facing a greater threat from climate change after the tsunami in December 2004. Intensified rains have caused flooding and landslides especially near areas that have experienced deforestation increased by post-tsunami reconstruction activities. For example, residents of Meulaboh, a city that is subsiding at an alarming rate after the tsunami inundations, fear that severe floods and sea-level rise may destroy some of the reconstruction work. PMI, supported by Red Cross Red Crescent partners working in Indonesia, has provided cash grants and technical training to groups of fishermen and farmers to build livelihood resilience through collaboration. For instance, the *Tok Boyoh* farmers group in Aceh Besar has decided to farm larger plots of land collectively to increase their income through access to economies of scale. The *Nelayan Rahmat* fishermen's group did not just purchase large nets, but have decided to join their nets to make greater catches. By receiving training in farming and fishing techniques within their groups, people have gained confidence in working towards collective sustainable livelihoods.

