

# Climate Resilient Agriculture

## Educational/Training Posters Series



### Community Change

Climate Smart Agriculture Key Message Poster Series 30



Participatory of progressive address clim

### Social Protection

Climate Smart Agriculture Key Message Poster Series 21



Agricultural disasters will affect capacity to

### Climate Risk

Climate Smart Agriculture Key Message Poster Series 27



A key issue in the Lower Mekong Basin is ecological sustainability. Agriculture is shifting to commercial farming following a small...

### Social Protection

Climate Smart Agriculture Key Message Poster Series 2



Short-term agricultural benefits term benefits can improved

### Landscape

Climate Smart Agriculture Key Message Poster Series 15



### Landscape

Climate Smart Agriculture Key Message Poster Series 18



Climate smart agriculture can have very different meanings depending upon the scale at which it is being applied.

### Diminishing Resources

Climate Smart Agriculture Key Message Poster Series 6



Adaptation adjustments in ecological, social or economic systems to responds to climatic changes. It refers to changes in processes, practices, and political or economic structures to moderate damage or benefit from opportunities associated with climate change.

### Healthy Diets

Climate Smart Agriculture Key Message Poster Series 4



Poor countries are more vulnerable to impacts of climate change and food availability. They can be supported to produce healthier foods in challenging conditions.

### Protecting Ecosystems

Climate Smart Agriculture Key Message Poster Series 10



Coastal ecosystems that support fisheries also help protect communities from the impact of natural hazards and disasters. Climate change threatens the structure and function of these already stressed systems.

## **Disclaimer:**

This publication has been prepared as an output for the FP1.1 project "Integrated agricultural technologies for enhanced adaptive capacity and resilient livelihoods in climate-smart villages (CSVs) of Southeast Asia" under the CCAFS program and has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies or opinions of CCAFS. All images remain the sole property of their source and may not be used for any purpose without written permission of the source.

## About these posters

These posters are based on key messages derived from a sourcebook of reading/reference materials in a companion production entitled Towards Climate Resilience in Agriculture for Southeast Asia - An Overview for Decision-makers. They were produced by CIAT with CCAFs funding for an FP1.1 project entitled "Integrated agricultural technologies for enhanced adaptive capacity and resilient livelihoods in climate-smart villages (CSVs) of Southeast Asia".

These posters are designed for use in training or educational events, primarily for starting discussions on important issues facing agriculture in a changing climate. The poster series cover a range of topics/issues related to climate change in agriculture. They can be used one at a time, and not necessarily in any particular sequence.

These pictures can also be enlarged to serve as educational posters, displayed one at a time. They can be used in power point presentations. The illustrations can serve as prototypes for local adaptation and further improvement by local artists. Any use of the illustrations should provide adequate credits to the source

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# Food Security



Climate change does not mean throwing out or re-inventing everything we know about agriculture. It means incorporating new ways of farming with old.

This key message was derived from the article entitled Climate-smart Smallholder Agriculture: What's Different?  
Author: Elwyn Grainger-Jones. Published by: IFAD. 2011, IFAD Occasional Paper 3.

# Healthy Diets



Food security is inextricably linked to income. It is important to ensure nutritious food is available locally for both men and women.

This key message was derived from the article entitled Climate-smart Smallholder Agriculture: What's Different?  
Author: Elwyn Grainger-Jones. Published by: IFAD. 2011, IFAD Occasional Paper 3.

# Healthy Diets



*Sustainable solutions are needed urgently.  
Mitigation strategies that make nutritious food  
more abundant need to be tested now.*

This key message was derived from the article entitled Climate change, food security, and small-scale producers: Analysis of findings of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). Info Note, April 2014.

# Healthy Diets



Poor countries are more vulnerable to impacts of climate change and food availability. They can be supported to produce healthier foods in challenging conditions.

This key message was derived from the article entitled Climate Change and Nutrition Security: Message to the Negotiators  
UNSCN Secretariat, c/o World Health Organization, 20 Avenue Appia CH 1211 Geneva 27, Switzerland. Email: [unscn@who.int](mailto:unscn@who.int); Web: [www.unscn.org](http://www.unscn.org)

# Healthy Diets



Climate smart actions which support nutrition entail a focus on diverse diets, diversification of agriculture and non-farm production systems and the mitigation of climate related risks.

This key message was drawn from previously published materials entitled *Stepping up to the challenge – Six Issues facing global climate change and food security* by Karl Deering.



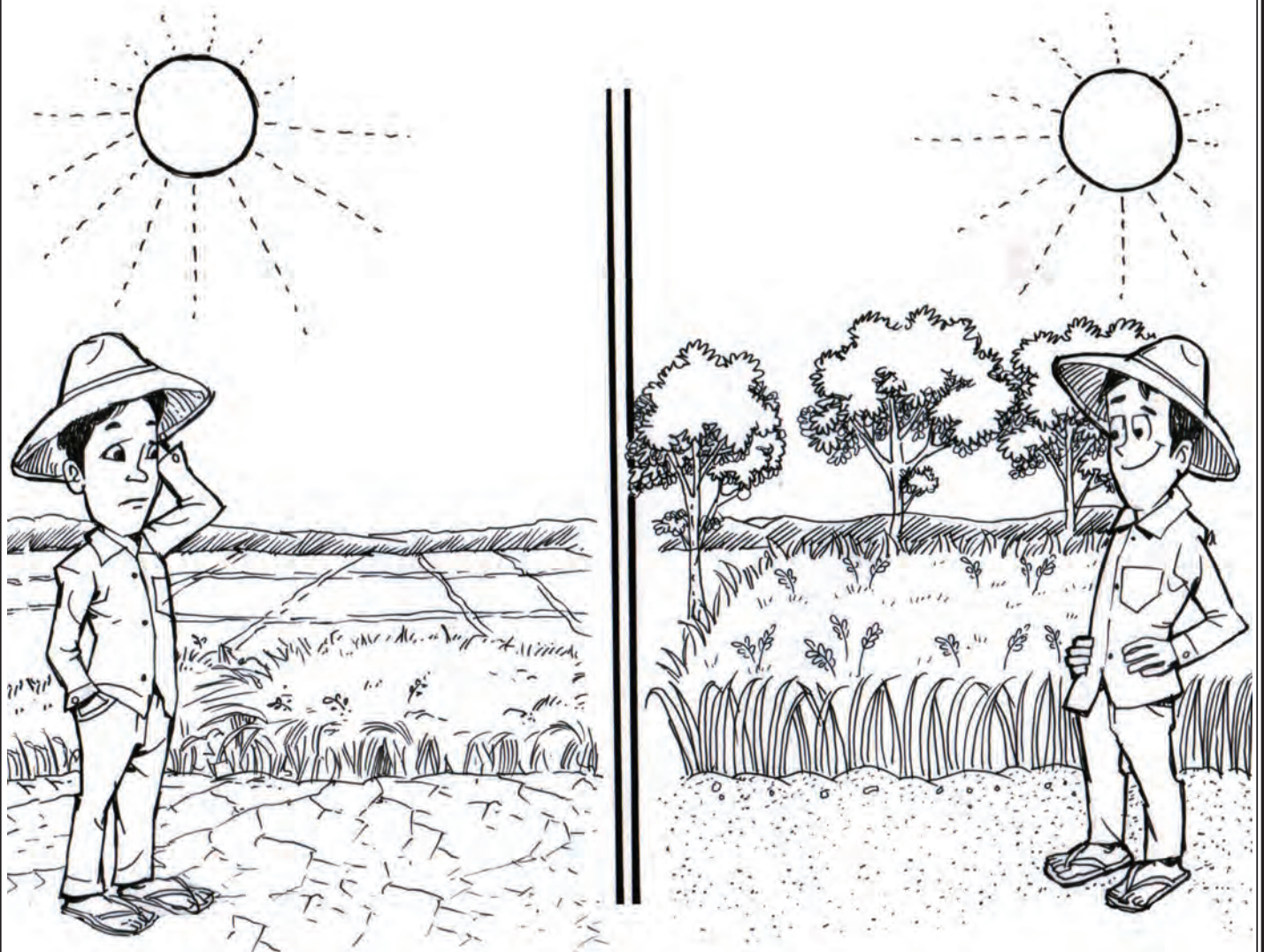
# Diminishing Resources



Adaptation adjustments in ecological, social or economic systems to responds to climatic changes. It refers to changes in processes, practices, and political or economic structures to moderate damage or benefit from opportunities associated with climate change.

This key message was derived from the original article entitled Impact of Climate Change on Water and Wetland Resources in Mekong River Basin: Direction for Preparedness and Action. July 2003. Southeast Asia START Regional Center. Report No.12

# Diminishing Resources



Because climate change will reduce the amount of water available to farmers (through shifts in groundwater and rainwater availability) another way to adapt to climate change is to improve water conservation on farms.

This key message was derived from the original article entitled Innovations in Sustainable Agriculture: Supporting Climate-Friendly Food Production. Laura Reynolds and Danielle Nierenberg, 2012.

# Diminishing Resources



*Our planet's food security depends on how water and soil resources are managed today and in the future.*

This key message was derived from the original article entitled Conservation practices to mitigate and adapt to climate change. *Journal of Soil and Water Conservation*, July/August 2011 - Vol. 66, No. 4

# Diminishing Resources



Soil organisms contribute a wide range of essential services to sustain ecosystems by regulating the dynamics of soil organic matter, soil carbon sequestration and green house gas emissions; modifying soil physical structure and enhancing plant health.

This key message was derived from the article entitled Soil Biota and Biodiversity: The "Root" of Sustainable Development. Published by: Food and Agriculture Organization of the United Nations. Website: [www.fao.org/biodiversity](http://www.fao.org/biodiversity)

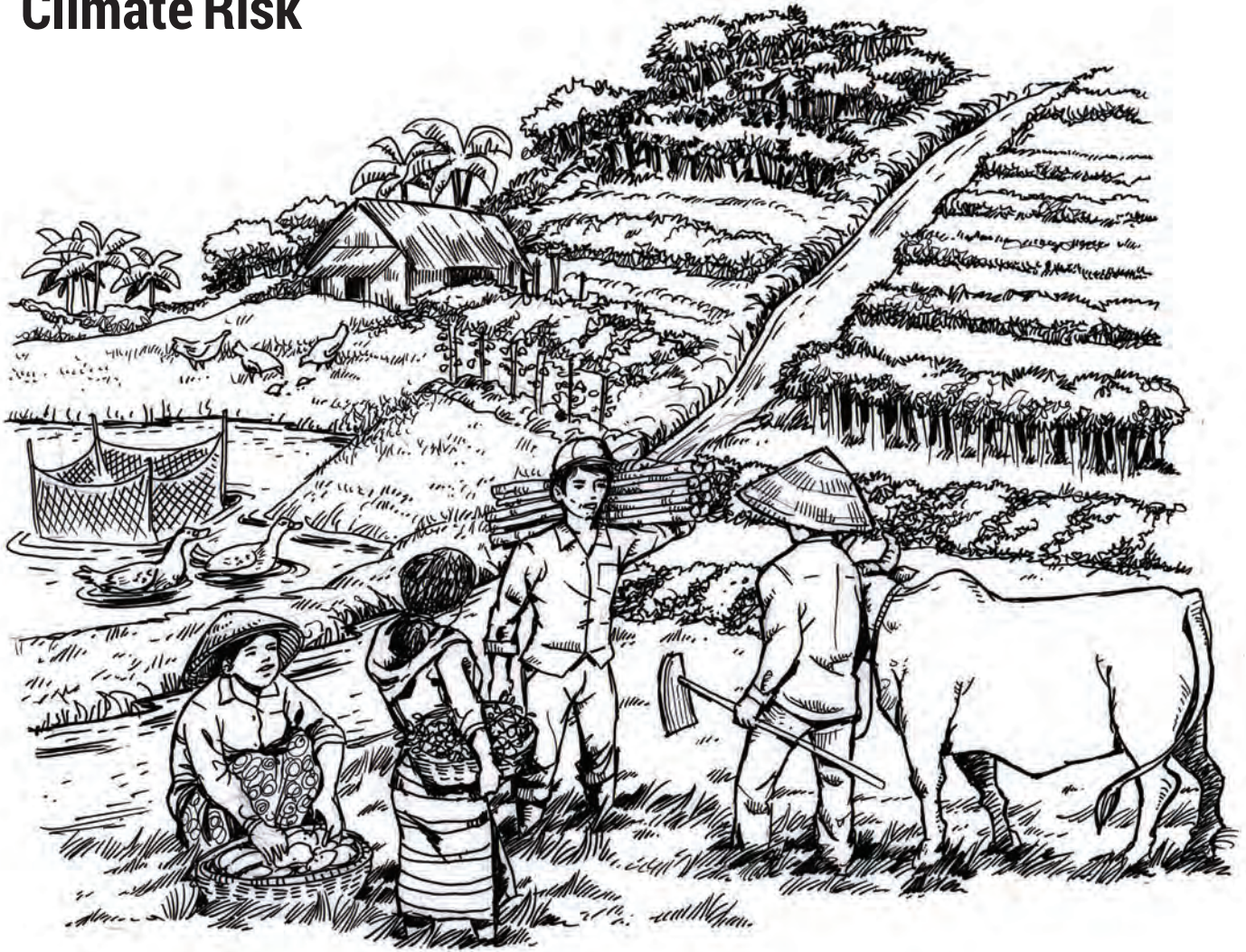
# Climate Risk



Green House Gas emissions from deforestation and land use change are the region's major contributor to global climate change. Improving forest and agricultural land management is one of the most cost-effective ways to reduce greenhouse gas emissions in Southeast Asia.

This key message was derived from the article entitled Climate Change in Southeast Asia: Focused Actions on the Frontlines of Climate Change. By: Asian Development Bank

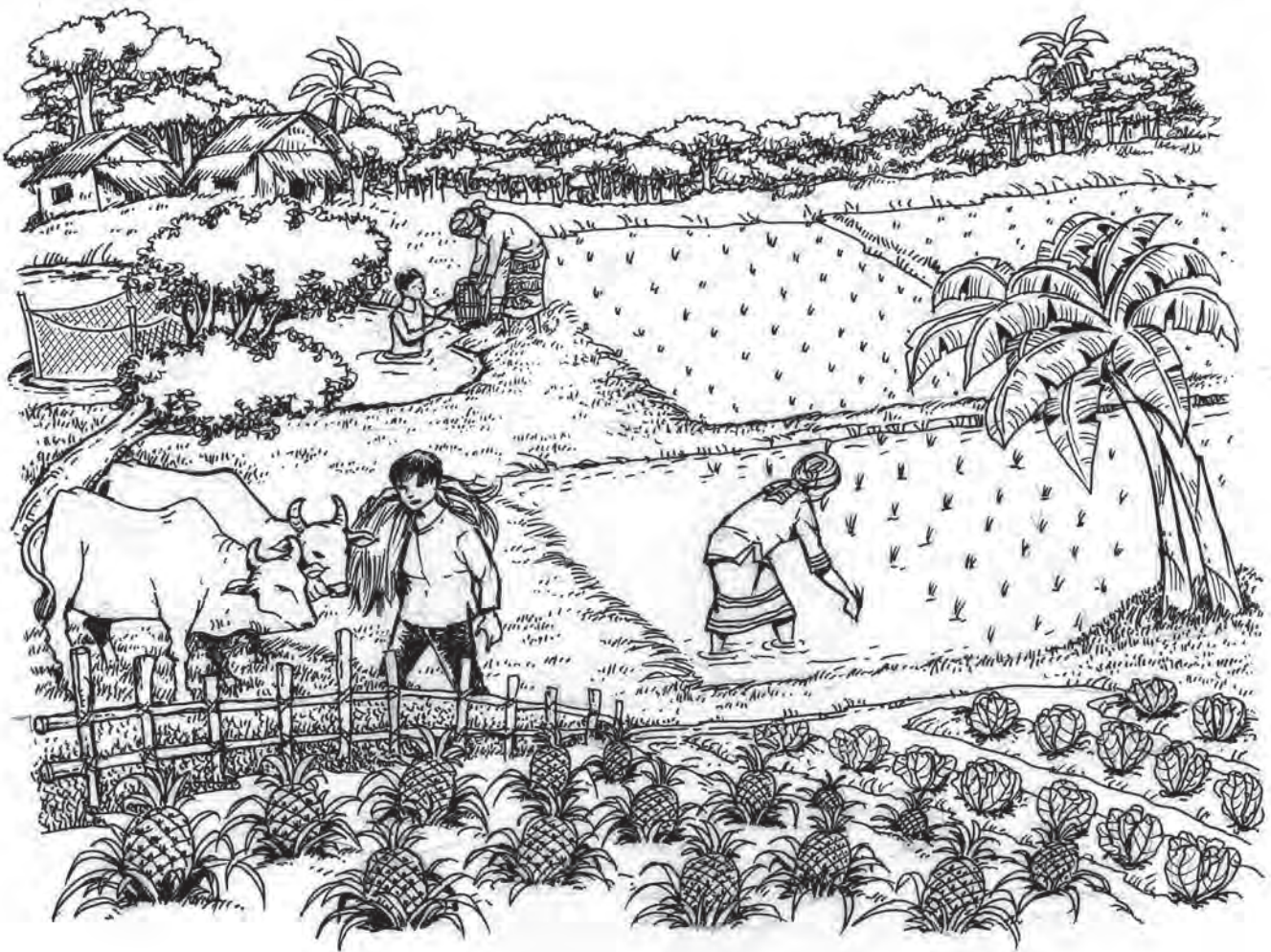
# Climate Risk



A key issue in the Lower Mekong Basin is ecological sustainability. Agriculture is shifting to commercial farming following a path of intensification, specialization, increased use of chemicals, mechanization and large irrigation diversification. Ecological sustainability is surfacing as a key issue.

This key message was drawn from a previously published material entitled *USAID Mekong ARCC Climate Change Impact and Adaptation Study for the Lower Mekong Basin: Summary Report (February 2014)*.

# Climate Risk



An adaptation response is often influenced by the certainty of information about climate impacts and the existing capacity of those responding.

This key message was drawn from a previously published material entitled *USAID Mekong ARCC Climate Change Impact and Adaptation Study for the Lower Mekong Basin: Summary Report (February 2014)*.

# Climate Risk

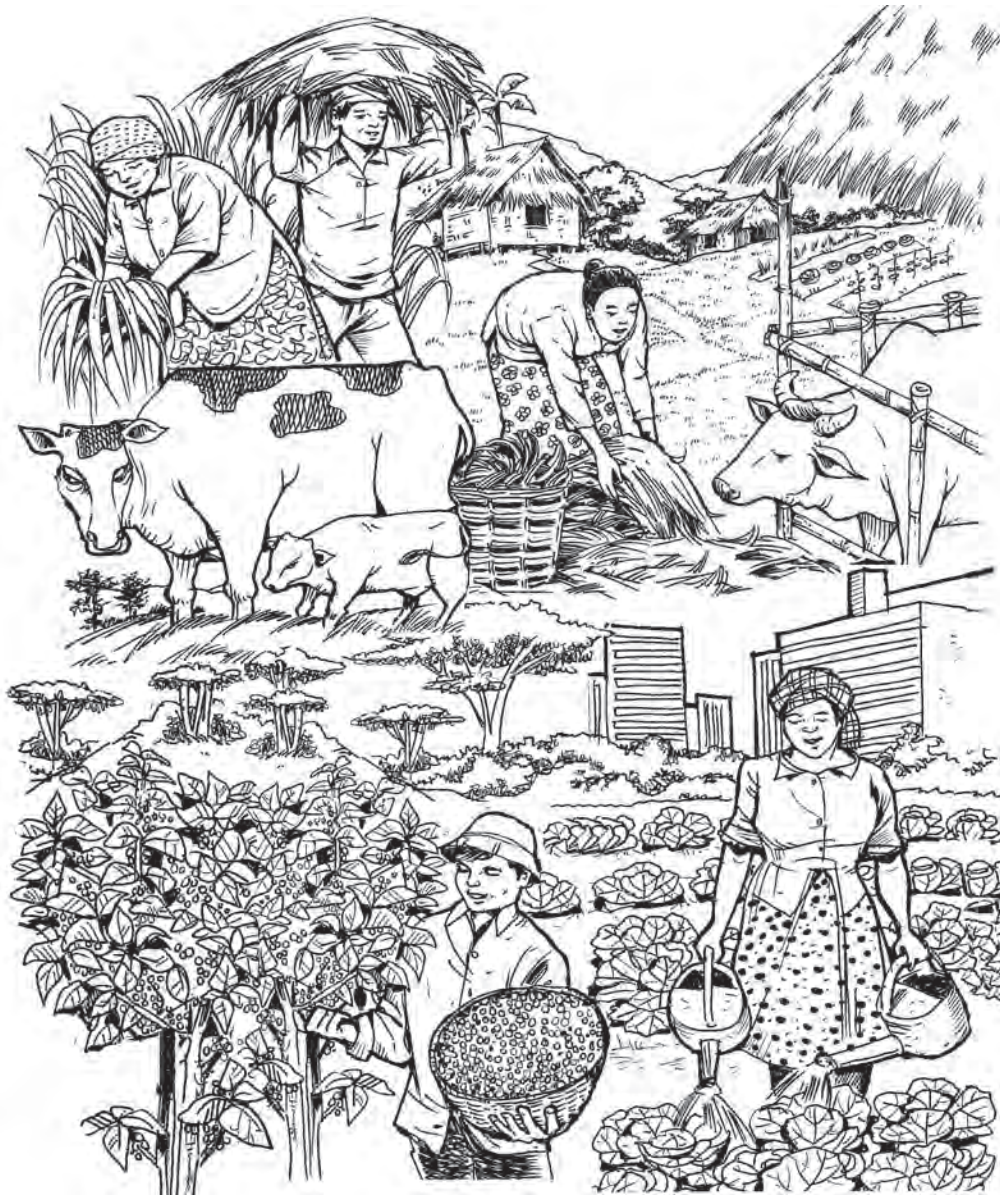


Since the effects of climate change are location-specific we need to ensure that technical, financial and capacity building support reaches local communities. Community based and needs driven approaches help deliver such services.

This key message was drawn from a previously published material entitled *USAID Mekong ARCC Climate Change Impact and Adaptation Study for the Lower Mekong Basin: Summary Report (February 2014)*.



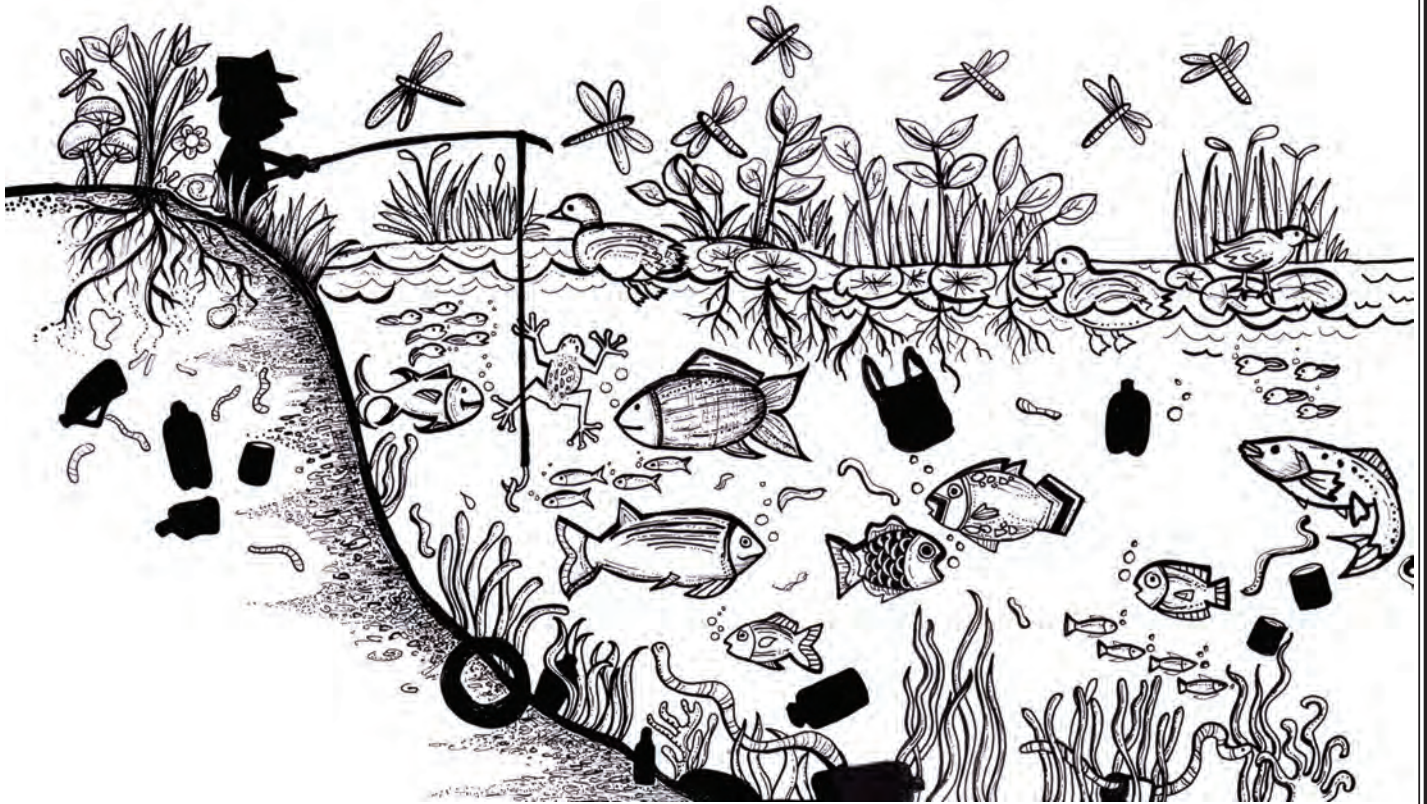
# Protecting Ecosystems



Climate change can be fought right on the farm.  
 Three important ways to mitigate climate change are:  
 building soil health and fertility, practicing agroforestry  
 and growing crops in urban areas.

This key message was derived from the original article entitled Innovations in Sustainable Agriculture: Supporting Climate-Friendly Food Production. Laura Reynolds and Danielle Nierenberg, 2012.

# Protecting Ecosystems



*Climate change threatens fisheries but if managed sustainably, fishermen and women can earn more income and access healthier food.*

This key message was derived from the article entitled Climate Change, Fisheries, and Aquaculture. Published by: Food and Agriculture Organization of the United Nations. Website: [www.fao.org/foodclimate](http://www.fao.org/foodclimate)

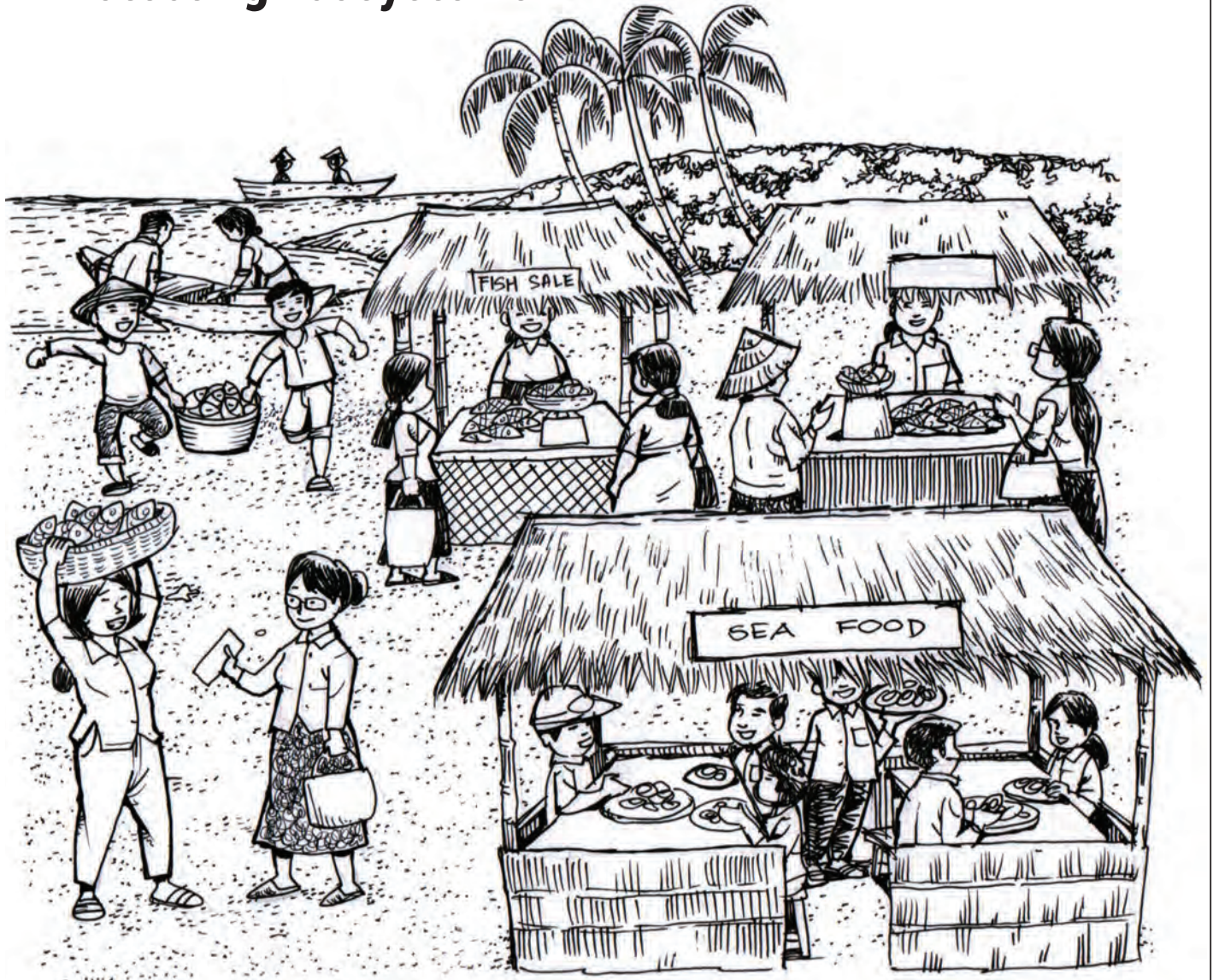
# Protecting Ecosystems



As climate changes, the value of biodiversity for food and agriculture will increase. Maintaining and using this reservoir of genetic diversity will be the foundation for coping with climate change.

This key message was derived from the article entitled Climate Change and Biodiversity for Food and Agriculture. Published by: Food and Agriculture Organization of the United Nations. Website: [www.fao.org/foodclimate](http://www.fao.org/foodclimate)

# Protecting Ecosystems



Coastal ecosystems that support fisheries also help protect communities from the impact of natural hazards and disasters. Climate change threatens the structure and function of these already stressed systems.

This key message was derived from the article entitled Fisheries and Aquaculture in our Changing Climate. UNFCC COP-15 in Copenhagen, December 2009. Policy Brief

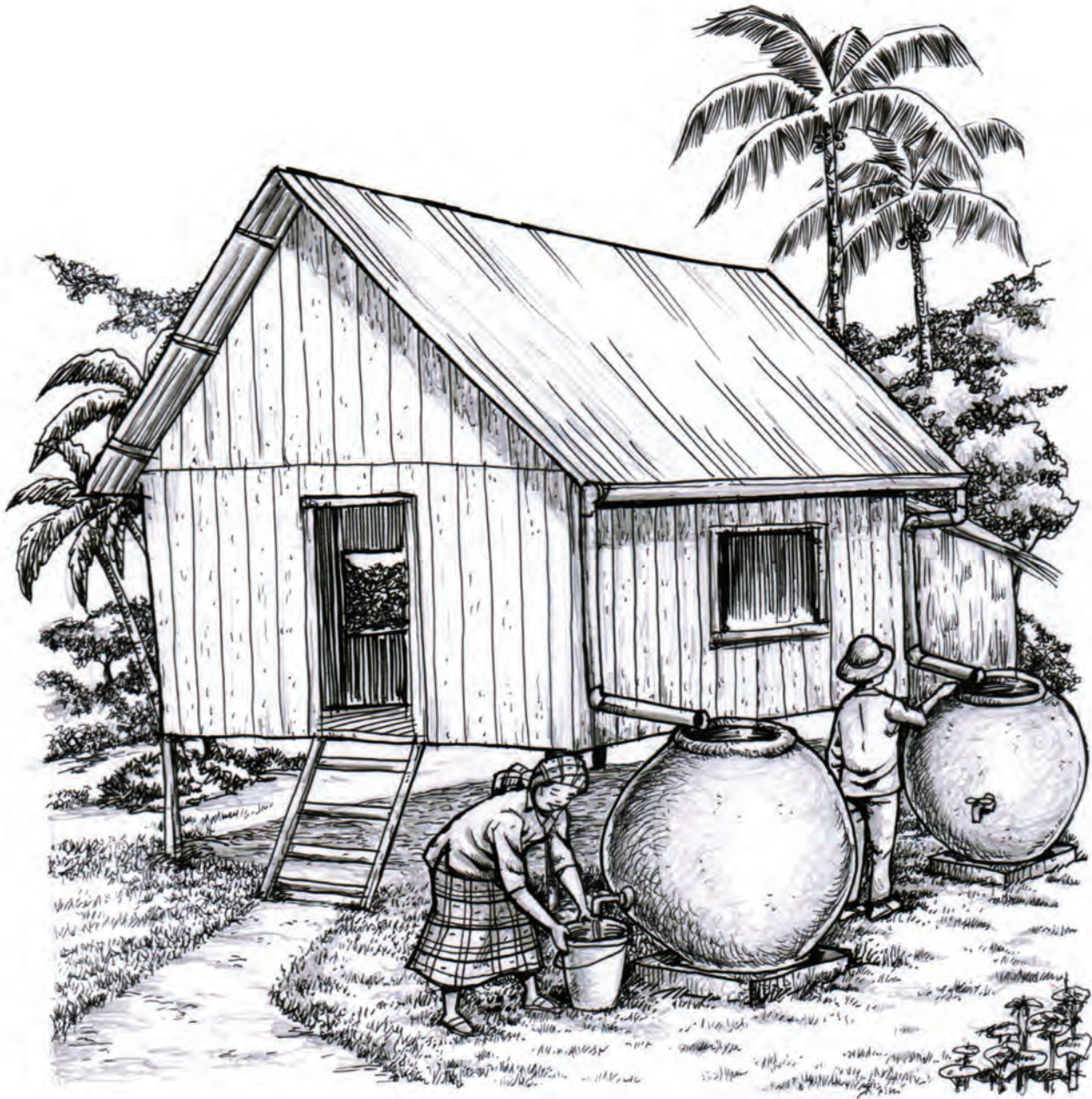
# Protecting Ecosystems



*To meet future food needs, agriculture needs to be transformed to deliver healthy food and clean water, while also mitigating harmful greenhouse gases and protecting communities.*

This key message was derived from the article entitled Rethinking Agriculture in the Greater Mekong Subregion: How to sustainably meet food needs, enhance ecosystem services and cope with climate change. By: IWMI and Sida. Citation: Johnston, R. M.; Hoanh, C. T.; Lacombe, G.; Noble, A. N.; Smakhtin, V.; Suhardiman, D.; Kam, S. P.; Choo, P. S. 2010. Colombo, Sri Lanka: International Water Management Institute. 26p. doi:10.3910/2010.207

# Landscape



*A holistic view of the whole landscape is needed to manage natural resources and reduce poverty.*

This key message was derived from the original article entitled Mainstreaming climate-smart agriculture into a broader landscape approach. FAO, 2012

# Landscape



*Landscapes need to produce a variety of different ecosystem services for the community, like water. Ecosystems need to be simultaneously resilient and able to adapt to a changing climate.*

This key message was derived from the original article entitled Mainstreaming climate-smart agriculture into a broader landscape approach. FAO, 2012

# Landscape



Successful land management means more than managing climate change. It means managing competing land use systems to reduce poverty, enhance biodiversity, increase yields, and lower greenhouse gas emissions.

This key message was derived from the article entitled Climate-smart Smallholder Agriculture: What's Different?  
Author: Elwyn Grainger-Jones. Published by: IFAD. 2011, IFAD Occasional Paper 3.



# Landscape



Climate smart agriculture can have very different meanings depending upon the scale at which it is being applied.

This key message was derived from the original article entitled Making climate-smart agriculture work for the poor. Policy Brief 12, Nairobi, Kenya, 2011. World Agroforestry Centre (ICRAF)

# Landscape



Livestock contribute significantly to Green House Gas emissions. But mitigation measures could help reduce emissions. Livestock can help poor people adapt to climate change. In general, livestock is more resistant to climate change than crops.

This key message was derived from the article entitled Livestock and climate change.  
Authors: Chiara Calvosa, Delgermaa Chuluunbaatar, Katuscia Fara. Published by: IFAD November 2009

# Social Protection



*Vulnerable farmers, pastoralists and other rural groups are not included in decision-making. They do not have the power to make decisions that affect their future.*

This key message was derived from the article entitled Climate-smart Smallholder Agriculture: What's Different?  
Author: Elwyn Grainger-Jones. Published by: IFAD. 2011, IFAD Occasional Paper 3.

# Social Protection



*Agricultural disasters will affect those with the least capacity to withstand hardship. Women are particularly vulnerable to the impacts of climate change in agriculture.*

This key message was derived from the original article entitled Innovations in Sustainable Agriculture: Supporting Climate-Friendly Food Production. Laura Reynolds and Danielle Nierenberg, 2012.

# Social Protection



*Women should be at the center of adaptation programs because they are a particularly vulnerable group... they play a significant role in agriculture.*

This key message was derived from the article entitled Women at the frontline of climate change: gender risks and hope. United Nations Environmental Programme, GRID-Arendal. By UNEP, CICERO, ICIMOD

# Social Protection



Climate responsive social protection includes disaster risk reduction. This requires an understanding of the interlinked nature of the shocks and stresses that poor people face.

This key message was derived from the article entitled Rethinking Resilience: Social Protection in the Context of Climate Change in Vietnam. September 2015

# Social Protection



Short-term agricultural benefits combined with long-term benefits can provide greater incentives to invest in improved management practices. Trade-offs between adapting to and mitigating the impacts of climate change must be recognized.

This key message was derived from the article entitled Making Climate-smart agriculture work for the poor; Policy Brief/2011  
Citation: Neufeldt H, Kristjanson P, Thorlakson T, Gassner A, Norton-Griffiths M, Place F, Langford K, 2011. ICRAF Policy Brief 12: Making climate-smart agriculture work for the poor. Nairobi, Kenya. World Agroforestry Centre (ICRAF)

# Social Protection



Social protection measures can also ease the economic and social dislocations that accompany economic growth and agricultural transformation. They aim to reduce social and economic inequalities, promote decent work and foster inclusive and sustainable economic growth.

This key message was derived from the article entitled The State of Food and Agriculture: Social protection and agriculture: breaking the cycle of rural poverty. FAO. 2015



# Community Change



Participatory action research (PAR) is a reflective process of progressive problem solving led by the community to address climate issues and solve problems.

Source: The application of participatory action research to climate change adaptation in Africa. 2012. IDRC  
 By: Laura A. German, Anne-Marie Tiani, Ali Daoudi, Tendayi Mutimukuru Maravanyika, Edward Chuma, Cyprian Jum, Nontokoze Nemarundwe, Edward Ontita and Giselle Yitamben



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