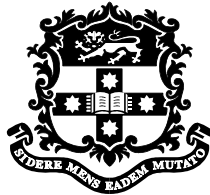


A Political Ecology of Living Aquatic Resources in Lao PDR

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requirements for the degree of Doctor of Philosophy



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2004

For Barb and Alan

ABSTRACT

This thesis uses a political ecology framework to critically analyse how development and environmental orthodoxies influence the use, management and development of living aquatic resources in an information poor developing country context. The research focuses specifically on Lao PDR, the only landlocked country of the Mekong River Basin, to question how knowledge over living aquatic resources is framed by a range of stakeholders. Specific attention is given to how aquaculture has gained ascendancy over capture fisheries in the rhetoric of resources users as well as government and non-government organisations. The empirical research focuses on the role of broad scale economic, social and environmental influences over resource use, the practical and perceived importance of both aquaculture and capture fisheries in rural Lao livelihoods and finally, how living aquatic resources are represented within the dominant development agendas of conservation, poverty alleviation and rural development.

Field work was conducted in Savannakhet province in Southern Lao PDR over 18 months from 2001 to 2002. The thesis has a strong empirical research base divided into activities carried out over multiple scales ranging from household to the Mekong River Basin. The thesis begins by establishing the historical context of resource use as well as the major orthodoxies on which development is based. Attention then turns to the extensive empirical research conducted over three districts of Savannakhet province.

The results of the empirical research report two macro scale studies at the district level. The first is a survey of fish ponds across three districts focusing on the spatial distribution of investment and resource use. The second is a survey of fish trade focusing on the differential trade between culture and capture fish species. The results of both studies highlight the disjuncture between complex patterns of aquaculture and capture fishery use and the major assumptions made about the use of these two resources by policy makers and management. Analysis then moves to the local level focusing on the role and importance of aquaculture and capture fisheries to the livelihoods of rural Lao communities. The results show the instrumental and hermeneutic importance of fish and other aquatic resources in the livelihoods of households and the community. In particular it is shown that capture fisheries are more important to rural livelihoods in terms of income and nutrition, while aquaculture is perceived as a more important activity in the development of community and household economies.

The final section then compares the empirical findings of the thesis with the policy and planning agendas of government and non-government organisations. The analysis focuses on the role of ideas and agency creating a highly politicised policy environment concluding that aquaculture based policy is more compatible with both government and non government agendas of poverty alleviation and rural development than capture fisheries. Furthermore, capture fisheries are marginalised within conservation as a resource that cannot contribute to the improvement of livelihoods or alleviate poverty.

The thesis concludes that living aquatic resources provide an imperative source of food and income to rural communities through diverse and complex human-environment interactions. In contrast government and non-government organisations operating at regional, national and local scales of policy and planning simplify these relationships drawing on wider orthodoxies of aquaculture and capture fisheries development. These simplifications do not reflect the problems and needs of the predominantly rural population. Furthermore, in the absence of a strong empirical base of information, living aquatic resources management and development has become highly politicised. Instead of responding to the realities of resource users, policy and planning reflect the interests and beliefs of development organisations, government and non-government.

The thesis provides an important, grounded account of the importance of living aquatic resources to rural livelihoods in Lao PDR and how these resources are understood and translated into national development and management agendas. In doing so the thesis contributes to an understanding of how complex human-environmental systems are perceived and represented in development policy and wider knowledge systems. The thesis also makes an important theoretical contribution to the growing body of literature on critical political ecology by arguing for the revitalisation of ecology as an integrated approach within political ecology and more widely within the study of human-environment interaction.

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TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	General introduction	1
1.2	Research Questions	2
1.3	The aquaculture-culture fisheries continuum	4
1.3.1	Capture fisheries	5
1.3.2	Aquaculture	6
1.3.3	Living aquatic resources and policy	7
1.4	Research problem	9
1.5	The Mekong Basin	13
1.6	Lao PDR	17
1.6.1	Poverty and the natural economy	18
1.6.2	Economic transition	19
1.6.3	Aid Dependency	20
1.7	Methodology	20
1.7.1	Triangulation, multiple methods and scale	21
1.7.2	Rigour and reflexivity in the research process	22
1.7.3	Analytical framework	23
1.8	Outline of Thesis	24
2	POLITICS, ECOLOGY AND LIVELIHOODS	27
2.1	Introduction	27
2.2	Social science and fisheries	27
2.2.1	Environment, aquaculture and capture fisheries	28
2.2.2	Society, aquaculture and capture fisheries	30
2.2.3	Fish and Geography	31
2.2.4	An aquacultural geography	34
2.3	“Nature’s Economy”: Putting ecology first	36
2.3.1	The beginnings of ecological thought	37
2.3.2	The ‘Newest Ecology’	42
2.3.3	Human Ecology	47

2.3.4	Political Ecology	51
2.4	Poverty, ecology and sustainable rural livelihoods	59
2.4.1	The ‘Poor’, relatively speaking	60
2.4.2	Entitlements and capabilities	60
2.4.3	Sustainable rural livelihoods	63
2.4.4	Capitals and capabilities	68
2.4.5	Diversification and rural livelihoods	72
2.5	Conclusion	73
3	HISTORY AND POLITICAL ECOLOGY OF LIVING AQUATIC RESOURCES IN LAO PDR	75
3.1	Introduction	75
3.2	Historical importance of capture fisheries in the Mekong Basin	75
3.2.1	Cambodia and Angkor	76
3.2.2	French Indochina: Cambodia, Laos and Northeast Thailand	77
3.2.3	Summary	84
3.3	Ancients or Adopters: the roots of ‘Asian’ aquaculture	84
3.3.1	Ancient Asian aquaculture	85
3.3.2	Ancients, adopters and developers: Europe and United States	87
3.3.3	Summary	89
3.4	Fisheries development in Lao PDR	90
3.4.1	External influences: fishery development agencies	90
3.4.2	Internal socialist development	96
3.4.3	Summary	99
3.5	Waiting for the revolution	100
3.5.1	Revolutions and agrarian change	101
3.5.2	Aquaculture development orthodoxies	104
3.5.3	Capture fishery management orthodoxies	109
3.5.4	Summary	111
3.6	Conclusion	112
4	GEOGRAPHY AND INVESTMENT OF FISH PONDS	114
4.1	Introduction	114

4.2	Methodology	115
4.3	Characteristics of study districts	115
4.4	Characteristics of fish ponds and aquaculture	118
4.4.1	Patterns of fish ponds development	118
4.4.2	Species stocked	121
4.4.3	Stocking rate and density	128
4.4.4	Feed	130
4.4.5	Source of water	131
4.4.6	Summary	131
4.5	Fish pond investment	133
4.5.1	Feed	133
4.5.2	Stocking	134
4.5.3	Water source	134
4.5.4	Final investment groups	134
4.5.5	Summary	138
4.6	Environmental determinants of investment	138
4.6.1	Environmental influence across all districts	139
4.6.2	Environmental influence within districts	142
4.6.3	Summary	144
4.7	Discussion	144
4.8	Conclusion	147
5	MARKET INTERACTIONS OF CULTURE AND CAPTURE FISH	149
5.1	Introduction	149
5.2	Method	150
5.3	Volume of trade	151
5.3.1	Surveyed markets	152
5.3.2	Capture and culture species	152
5.3.3	Geography of trade	153
5.3.4	System of trade	157
5.3.5	Summary	158
5.4	Species composition	159
5.4.1	Capture species	159

5.4.2	Cultured species	160
5.4.3	Summary	161
5.5	Market value	162
5.5.1	Capture species	162
5.5.2	Cultured species	163
5.5.3	Imported species	163
5.5.4	Price analysis	163
5.5.5	Summary	165
5.6	Seasonal variation	166
5.6.1	Capture species	166
5.6.2	Cultured species	166
5.6.3	Summary	167
5.7	Discussion	167
5.7.1	Categories of culture and capture fish	168
5.7.2	Protein for the poor	169
5.7.3	Income for the poor	170
5.7.4	Reducing pressure on capture fisheries	170
5.7.5	Developing the market economy	171
5.8	Conclusion	172
6	THE ROLE AND IMPORTANCE OF LIVING AQUATIC RESOURCES TO RURAL LIVELIHOODS	174
6.1	Introduction	174
6.2	Methodology	176
6.2.1	Fish consumption survey	176
6.2.2	Participatory research activities	177
6.2.3	Focus groups	178
6.2.4	In depth semi-structured interviews	179
6.3	Area of study	180
6.3.1	Chumphone villages	180
6.3.2	Outhomphone villages	187
6.3.3	Khantabouli villages	192
6.3.4	Summary	194
6.4	Fish consumption: quantifying importance	195

6.4.1	Existing estimates	195
6.4.2	Survey results	196
6.4.3	Variation between communities	198
6.4.4	Seasonal variation	199
6.4.5	Comparison of families with and without fish ponds	201
6.4.6	Summary	201
6.5	Aquaculture and fisheries in rural livelihoods	203
6.5.1	Wealth, aquaculture and fisheries	203
6.5.2	The importance of living aquatic resources	208
6.5.3	Rural livelihoods and capture fisheries	214
6.5.4	Rural livelihoods and aquaculture	221
6.5.5	Summary	225
6.6	Social and cultural value of living aquatic resources	226
6.6.1	Modernisation vs. nature	227
6.6.2	Rural solidarity	228
6.6.3	Class distinction	231
6.6.4	Projects and local politics	232
6.6.5	Summary	234
6.7	Conclusion	234
7	LIVING AQUATIC RESOURCES IN POLICY AND PLANNING	238
7.1	Introduction	238
7.2	Theory	239
7.2.1	The primacy of ideas and ‘epistemic communities’	239
7.2.2	A political ecology of policy	241
7.2.3	Classification of policy narratives	242
7.3	Methodology	242
7.4	Development objectives in Lao PDR	243
7.4.1	Government	245
7.4.2	Non Government Organisations	246
7.4.3	Summary	249
7.5	Ideas, policy and planning	249
7.5.1	Research, planning and extension	250
7.5.2	Decentralisation and the planning process	250
7.5.3	Power, interests and values	250

7.5.4	Summary	251
7.6	Development Narratives and Activities	251
7.6.1	Local development narratives	252
7.6.2	Government development narratives	252
7.6.3	Non government organisations	259
7.6.4	Multi-lateral organisations	262
7.6.5	Summary	265
7.7	Discussion	266
7.7.1	Reducing uncertainty and complexity	266
7.7.2	Production, conservation and poverty alleviation	267
7.7.3	Crisis narratives	269
7.7.4	Micro and macro politics	270
7.8	Conclusion	271
8	A GEOGRAPHY OF LIVING AQUATIC RESOURCES	273
8.1	A political ecology of living aquatic resources	274
8.1.1	Knowledge, power and ‘fisheries’ development	275
8.1.2	Integrated geography of living aquatic resources	277
8.1.3	Role and importance of capture and culture fisheries to rural communities	278
8.1.4	Fish, conservation, poverty alleviation and rural development in policy and practice	280
8.2	Implications of research	283
8.2.1	Theoretical insights – the role of ecology	283
8.2.2	Methodological insights - a geography of living aquatic resources	293
8.2.3	Implications for policy	294
8.3	Further research	295
8.4	Final comments	296
	REFERENCES	298
	APPENDIX A	331
	GIS Secondary data sources and metadata	331
	The extent of natural aquatic resources	332
	Pond survey analysis results	334

Investment Index	335
Chi squared tests – environmental attributes and investment groups	335
APPENDIX B	338
Market survey and trader interviews method	338
Species composition of trade	340
Price and quantity per market	342
APPENDIX C	348
Fish consumption survey	348

LIST OF FIGURES

Figure 1-1 Aquaculture-fisheries continuum (Source: Guttman 1996)	5
Figure 1-2 The Lower Mekong Basin.....	16
Figure 1-3 Lao PDR.....	17
Figure 1-4 Thesis structure and analytical framework.....	24
Figure 2-1 Research agenda for a geography of living aquatic resources.	36
Figure 2-2 An heuristic model for social-ecological systems analysis.....	46
Figure 2-3 Sustainable rural livelihoods framework	66
Figure 3-1 Various species of fish from the bas reliefs of Angkor Wat.....	77
Figure 3-2 Chip trap on Se Bang Hiang, January 2003	78
Figure 3-3 Location and number of ponds in Laos by province at the end of the 1950s..	92
Figure 3-4 Supply and demand analysis for Lao PDR, 1970-2000.	107
Figure 3-5. Developmental progression of aquaculture in northeast Thailand.....	108
Figure 4-1. The extent of aquatic resources in three study districts.	117
Figure 4-2. Development of fish ponds from 1950-2001	119
Figure 4-3 Fish pond development patterns.....	120
Figure 4-4. Different uses of fish grown in ponds.....	121
Figure 4-5 Distribution of <i>Cyprinus carpio</i> (Common Carp, exotic species)	123
Figure 4-6 Distribution of <i>Puntius goniotus</i> (Silver Barb, exotic species).....	124
Figure 4-7 Distribution of <i>Tilapia spp.</i> (Silver Barb, exotic species).....	124
Figure 4-8 Distribution of <i>Cirrhinus cirrhosus</i> (Mrigal Carp, exotic species).....	125
Figure 4-9 Distribution of <i>Labeo rohita</i> (Rohu Carp, exotic species).....	125
Figure 4-10 Distribution of <i>Hypophthalmichthys molitrix</i> (Silver Carp, exotic species) .	126
Figure 4-11 Distrbution of <i>Aristichthys nobilis</i> (Big Head Carp, exotic species)	126
Figure 4-12 Distrbution of <i>Clarius batrachus</i> (African Walking Catfish, exotic species)	127
.....	
Figure 4-13 Distribution of <i>Clarius macrocephalus</i> (Walking Catfish, native species)	127
Figure 4-14 Distribution of <i>Channa striata</i> (Snakehead, native species).....	128
Figure 4-15 Distribution of bags stocked.....	130
Figure 4-16 Distribution of feed	132
Figure 4-17. Distribution of ponds between investment groups.....	136
Figure 4-18. Comparison of investment groups by district	136
Figure 4-19 Distribution of final investment categories	137
Figure 4-20 Land use by investment groups.....	140

Figure 4-21 Irrigation by investment groups	141
Figure 4-22 River distance by investment groups	141
Figure 4-23 Road distance by investment groups.....	141
Figure 4-24 Road type by investment group.....	142
Figure 4-25 Proportion of ponds by land use in each district	143
Figure 4-26 Comparison of road distance and investment in Khantabouli and Outhomphone.....	144
Figure 4-27 Rural aquaculture-fisheries continuum	146
Figure 5-1. Comparison of total culture and capture fish species sold in each market. .	154
Figure 5-2. Volume of fish sold in markets by district	154
Figure 5-3 Import trade flows in surveyed markets. Note: percentages are of total fish sold in the destination market	155
Figure 5-4. Distribution of supply of capture fish to markets.....	156
Figure 5-5. Distribution of supply of culture fish to markets	156
Figure 5-6 Fish trade networks in Savannakhet Province	158
Figure 5-7 Price trends.....	165
Figure 5-8. Estimated volumes and average price per kg of culture and capture fish by month.	167
Figure 6-1 Location of study villages in three districts	181
Figure 6-2 Kadan village map.....	184
Figure 6-3 Phone Muang village map.....	185
Figure 6-4 Nong Kham Het village map.....	189
Figure 6-5 Ahung Nyay village map	190
Figure 6-6 Gnang Soung village map	193
Figure 6-7 Seasonal variation in consumption in each study village.....	200
Figure 6-8 Overall importance of activities	209
Figure 6-9 Activity ranking and importance by village.....	210
Figure 6-10 Activity rank of capture fisheries across wealth groups	212
Figure 6-11 Activity ranking of aquaculture across wealth groups.....	213
Figure 6-12 Fishing patterns in Gnang Soung	217
Figure 6-13 Fishing patterns in Ahung Nyay	217
Figure 8-1 Social-ecological systems and emergent properties.....	290
Figure 8-2 An ecologically based approach to living aquatic resources research, management and development.....	292

LIST OF TABLES

Table 1-1 Fisheries production estimates in the Mekong River Basin	14
Table 3-1 Fisheries projects 1978 to 1991 in Lao PDR.....	94
Table 4-1. Area of fish ponds	118
Table 4-2. Type of ponds by district.....	122
Table 4-3. Frequency of main culture and capture species in fish ponds	123
Table 4-4. Stocking densities by district (fingerlings/m ²)	129
Table 4-5. Feed index	133
Table 4-6. Water sources index	134
Table 5-1 Surveyed markets	152
Table 5-2. Comparison of capture species volume and volume traded	160
Table 5-3. Comparison of cultured species volume and volume traded.....	161
Table 6-1 Comparison of six study villages.....	182
Table 6-2 Fish consumption studies in Lao PDR.	196
Table 6-3 Per capita consumption by village (kg/per/yr)	197
Table 6-4 Consumption of other meat (kg/person/yr)	197
Table 6-5 Relative composition of diet.....	198
Table 6-6 Comparison of per capita consumption between families with and without fish ponds.....	202
Table 6-7 Proportion of fish and OAA to total meat protein consumption	202
Table 6-8 Criteria identified to determine wealth ranked groups	206
Table 6-9 Fishing calendar Ahung Nyay Village, Outhomphone	219
Table 6-10 Fishing calendar Gnang Soung Village, Outhomphone	219
Table 7-1 Organisations interviewed	244
Table 7-2 Summary of local development narratives	254
Table 7-3 Summary of government development narratives (from interviews).....	256
Table 7-4 Activities involving living aquatic resources in Savannakhet province.....	258
Table 7-5 NGO development narratives	261

LIST OF ACCRONYMS

AIT	Asian Institute of Technology
AMFC	Assessment of Mekong Fisheries Component (of the Mekong River Commission)
DAFO	District Agriculture and Forestry Office
DLF	Department of Livestock and Fisheries
DoF	Department of Forestry
FAO RAP	United Nations Food and Agriculture Organisation Regional office for Asia and the Pacific
IFF	Inland fresh fish
IUCN	The World Conservation Union (formerly the International Union for the Conservation of Nature)
LARReC	Living Aquatic Resources Research Centre
LECS	Lao Economic Consumption Survey
LMB	Lower Mekong Basin
MAF	Ministry of Agriculture and Forestry
MCC	Mennonite Central Committee
MLI	Mekong Learning Initiative
MRC	Mekong River Commission
NAFES	National Agriculture and Forestry Extension Service
NAFRI	National Agriculture and Forestry Research Institute
NCA	Norwegian Church Aid
OAA	Other aquatic animals
PAFO	Provincial Agriculture and Forestry Office
PLFO	Provincial Livestock and Fisheries Office
RDC	Regional Development Coordination for Livestock and Fisheries in Southern Lao PDR
UNDCP	United Nations Drug Control Programme
UNDP	United Nations Development Programme
VAM	Vulnerability Assessment Mapping
WCS	World Conservation Society
WWF	World Wide Fund for Nature

GLOSSARY AND TRANSLITERATION OF LAO

The following transliteration system was taken from Hoshino and Marcus (1995).

Phonetic	Lao Consonants	Phonetic	Lao Consonants
b	ບ	l	ລ ຫຼ
pb	ປ	m	ມ ຫມ
ch	ຈ	n	ນ ຫນ
d	ດ	ng	ງ ຫງ
dt	ຕ	ny	ຍ ຫຍ
f	ຟ ຝ	p	ພ ຜ
g	ກ	s	ຊ ສ
h	ຮ ຫ	t	ທ ຖ
k	ຄ ຂ	w	ວ ຫວ
l	ຣ	y	ຢ

Phonetic	Lao Vowel (short)	Phonetic	Lao Vowel (short)
a	າ ະ	er	ເຮີ
i	ີ ື	ia	ເຮີຍ ະ
eu	ື ື	ua	ເຮີວ ະ
u	ຸ ຸ	eua	ເຮີອ ະ
e	ເ ະ	ai	ເຮີ
ae	ແ ະ	ao	ເຮີາ
o	ໂ ະ	am	າ ັ
oh	ເ ະ		

Phonetic	Lao Vowel (long)	Phonetic	Lao Vowel (long)
aa	Xᵃ	oh	ᵃ
ii	ᵃ	er	ᵃ
eu	ᵃ	ia	ᵃ
hou	Xᵃ	ua	ᵃ
e	ᵃ	eua	ᵃ
ae	ᵃ	oi	Xᵃ
o	ᵃ		

Lao transliterations are used in proper nouns, where the descriptor, such as village, river or the title of a person, is an essential part of the name of the place or person.

Transliteration	Lao	English
<i>Ban</i>	ບ້ານ	Village
<i>Beung</i>	ເບືອງ	Wetland or swamp (e.g. Beung Va)
<i>Het gan paliit bep tansamai</i>	ເຮັດການຜະລິດແບບທັນສະໄໝ	Modern (agricultural) production system
<i>Lambaak</i>	ລຳບາກ	Difficult (describing a persons existence)
<i>Tuk nyaak</i>	ທຸກຍາກ	Poor (describing people)
<i>Haa ngai</i>	ຫາງ່າຍ	Easy to catch (fish)
<i>Haa nyark</i>	ຫາຍາກ	Difficult to catch (fish)
<i>Het kin bep thamasaat</i>	ເຮັດກິນແບບທຳມະຊາດ	Collection of food from nature
<i>Huay</i>	ຫ້ວຍ	Stream (e.g. Huay Kadan)
<i>Sawatigaan</i>	ສະວັດຕິການ	Welfare
<i>Kwam samakhey</i>	ຄວາມສາມັກຄີ	Solidarity
<i>Lao khao</i>	ເຫລົ້າຂາວ	Rice whiskey
<i>Mae Tao</i>	ແມ່ເຖົ້າ	Grandmother
<i>Nam</i>	ນ້ຳ	River (Central and northern provinces)
<i>Nong</i>	ໜອງ	Pond or lake (e.g. Nong Kham)
<i>Oudom somboon</i>	ອຸດົມສົມບູນ	Abundance
<i>Pba</i>	ປາ	Fish (e.g. <i>Pba Suay</i>)

<i>Pbaa</i>	ປ້າ	Aunty
<i>Paw Tao</i>	ພໍ່ເຖົ້າ	Grandfather
<i>Paa nong</i>	ພ່າໜອງ	Community fishing day
<i>Paa pba</i>	ພ່າປາ	Community fishing day
<i>Phou nyai</i>	ຜູ້ໃຫຍ່	A respected person
<i>Salaa</i>	ສາລາ	Small hut (In a rural context)
<i>Se</i>	ເຊ	River (Southern provinces)
<i>Suan beer</i>	ສວນເບັງ	Beer garden
<i>Thamasaat</i>	ທຳມະຊາດ	Nature
<i>Than</i>	ທ່ານ	Mister
<i>Thansamai</i>	ທັນສະໄຫມ	Modern

LIST OF FISH SPECIES

Scientific name	Common name	Lao name	Transliteration
<i>Aristichthys nobilis</i>	Big Head Carp	ປາຫົວໃຫຍ່	<i>Pba Hua Nyay</i>
<i>Bagarius spp.</i>	Goonch	ປາແຂ້	<i>Pba Kee</i>
<i>Barbodes altus</i>	Red Tailed Tinfoil	ປາໝາກມົງ	<i>Pba Maak Mong</i>
<i>Belodontichthys truncatus</i>		ປາຂົບ	<i>Pba Kop</i>
<i>Channa micropeltes</i>	Indonesian Snakehead	ປາກະໂດ	<i>Pba Ka Do</i>
<i>Channa striata</i>	Snakehead	ປາຄໍ້	<i>Pba Kor</i>
<i>Chitala ornata</i>	Featherback	ປາຕອງຄວາຍ	<i>Pba Dtong Khao</i>
<i>Cirrinhus microlepis</i>		ປາພອນ	<i>Pba Phon</i>
<i>Cirrinus cirrhosus</i>	Mrigal Carp	ປານາງຈັນ	<i>Pba Nang Chan</i>
<i>Clarius batrachus</i>	African Walking Catfish	ປາດຸກບອນ	<i>Pba Duk Paan</i>
<i>Clarius macrocephalus</i>	Walking Catfish	ປາດຸກ	<i>Pba Duk Na</i>
<i>Cyclocheilichthys enoplos</i>		ປາໂຈກ	<i>Pba Chok</i>
<i>Dasyathis laosensis</i>	Mekong Stingray	ປາຝາໄລ	<i>Pba Faa Lai</i>
<i>Hampala dispar</i>		ປາສູດ	<i>Pba Suut</i>
<i>Heliophagus waandersii</i>		ປາໝູ	<i>Pba Nu</i>
<i>Hemibagrus spp.</i>		ປາກົດ; ປາເຄິງ	<i>Pba Kot; Pba Keung</i>
<i>Hypophthalmichthys molitrix</i>	Silver Carp	ປາແກ້ດແລບ	<i>Pba Ket Leb</i>
<i>Labeo barbatulus</i>		ປາເພັຍ	<i>Pba Phia</i>
<i>Labeo rohita</i>	Rohu Carp	ປາລູຮູ	<i>Pba Rohu</i>
<i>Mackeral</i>		ປາທູ	<i>Pba Tuu</i>
<i>Macrogynathus siamensis</i>	Peacock Eel	ປາຫລິດ	<i>Pba Lot</i>
<i>Micronema micronema</i>		ປານາງ	<i>Pba Nang</i>
<i>Monopterus albus</i>	Lai Eel	ອຸ່ງນ	<i>Ian</i>
<i>Morulius spp.</i>	Sharkminnow	ປາເພັຍ	<i>Pba Phia</i>
<i>Mystus spp.</i>		ປາຂະແຍງ	<i>Pba Kanyeng</i>
<i>Notopterus notopterus</i>	Bronze Featherback	ປາຕອງ	<i>Pba Tong</i>
<i>Ompok bimaculatus</i>	Butter Catfish	ປາເຊັອມ	<i>Pba Seuam</i>
<i>Oxyeleotris marmorata</i>	Marble Goby	ປາບູ່	<i>Pba Buu</i>
<i>Pangasianodon hypothalamus</i>	Sutchi catfish	ປາຊວຍ	<i>Pba Suay</i>
<i>Trichogaster spp.</i>	Gourami	ປາກະເດີດ	<i>Pba Kadert</i>
<i>Wallago spp.</i>	Wallago	ປາຄ້າວ	<i>Pba Khao</i>