

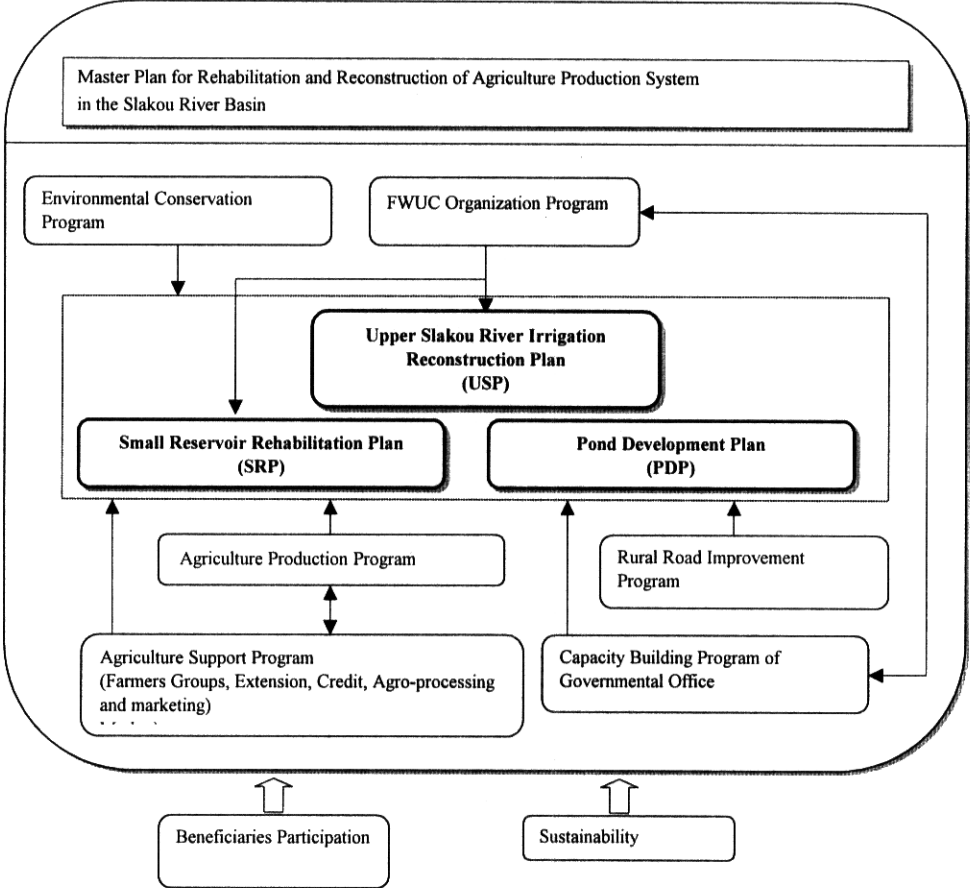
Goal: Improvement of low living standard in rural area of Cambodia where existing irrigation facilities are deteriorated, by application of the Plan as a model.

Targets

Increase in farm income and improvement of low living standard in the Study Area

Model for irrigation-based rehabilitation /reconstruction projects

Contribution to stabilization of food supply



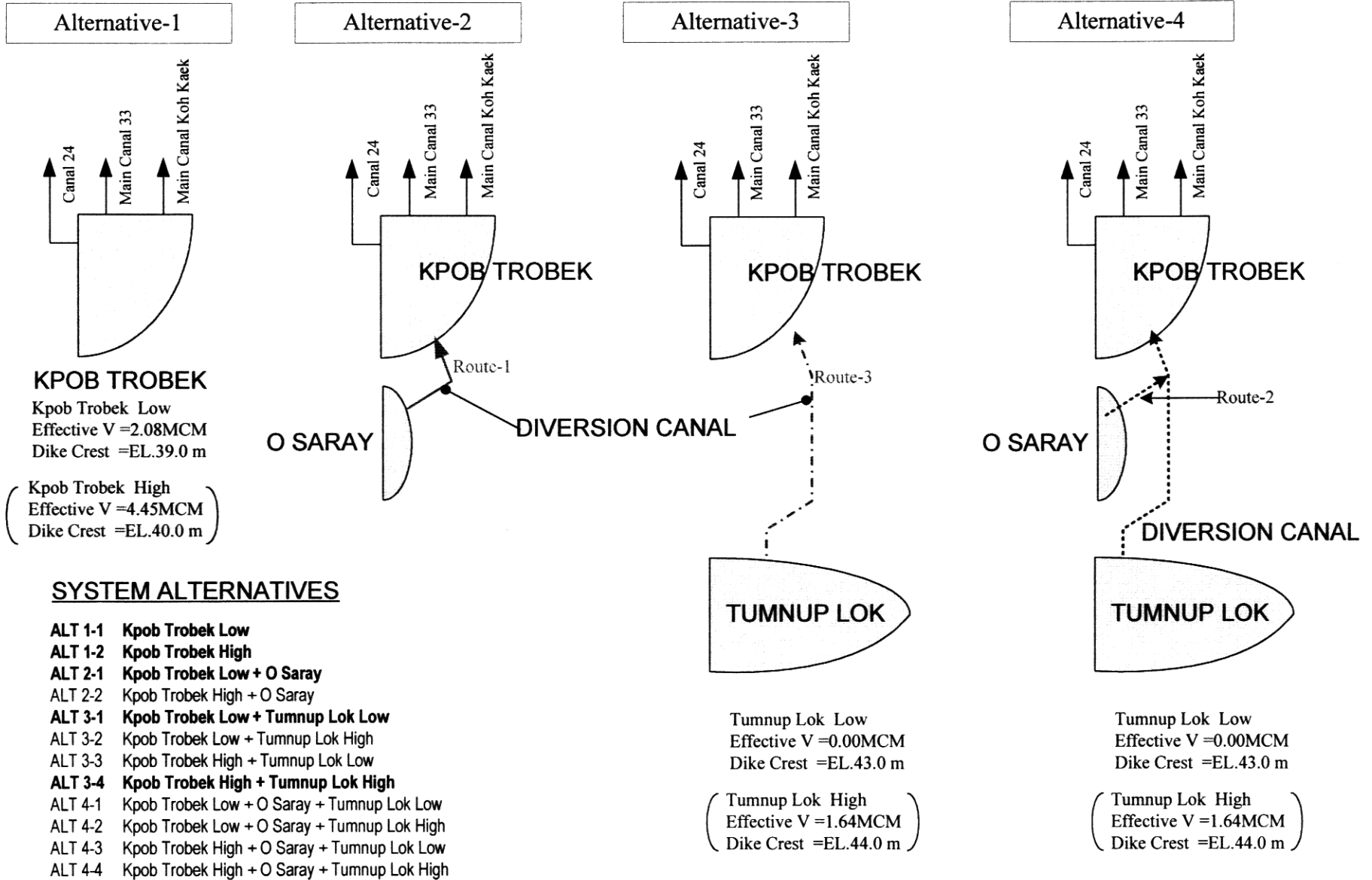
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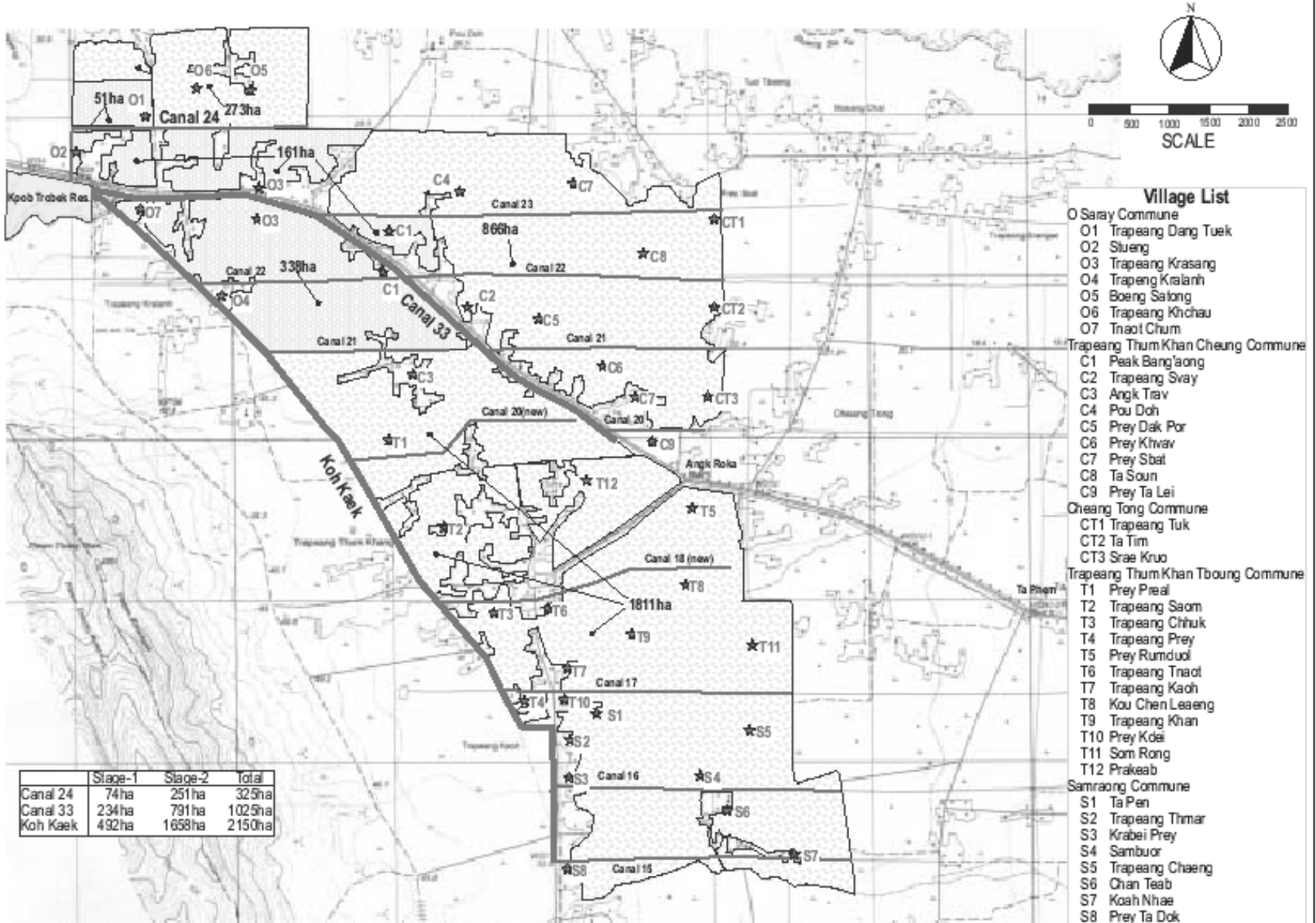
Figure II-4.1.1
គំនិតអភិវឌ្ឍន៍

Figure II-4.2.1

ការពិសោធន៍ប្រព័ន្ធបង្កើនផលិតកម្ម និង ការពារទឹក



Note: Bold faced alternatives were selected for detailed evaluation.(Sub-section II-4.2.1)



- Village List**
- O Saray Commune
 - O1 Trapeang Dang Tuek
 - O2 Stueung
 - O3 Trapeang Krasang
 - O4 Trapeang Kralanh
 - O5 Boeang Salong
 - O6 Trapeang Khchau
 - O7 Tnaot Chum
 - Trapeang Thum Khan Cheung Commune
 - C1 Peak Bang'aong
 - C2 Trapeang Svay
 - C3 Angk Trav
 - C4 Pou Doh
 - C5 Prey Dak Por
 - C6 Prey Khvav
 - C7 Prey Sbat
 - C8 Ta Soun
 - C9 Prey Ta Lei
 - Cheang Tong Commune
 - CT1 Trapeang Tuk
 - CT2 Ta Tim
 - CT3 Srae Kruo
 - Trapeang Thum Khan Tboung Commune
 - T1 Prey Preal
 - T2 Trapeang Saom
 - T3 Trapeang Chhuk
 - T4 Trapeang Prey
 - T5 Prey Rumduol
 - T6 Trapeang Tnaot
 - T7 Trapeang Kach
 - T8 Kou Chen Leang
 - T9 Trapeang Khan
 - T10 Prey Kdei
 - T11 Som Rong
 - T12 Prakeab
 - Samraong Commune
 - S1 Ta Pen
 - S2 Trapeang Thmar
 - S3 Krabei Prey
 - S4 Sambuor
 - S5 Trapeang Chaeng
 - S6 Chan Teab
 - S7 Koah Nhae
 - S8 Prey Ta Dok

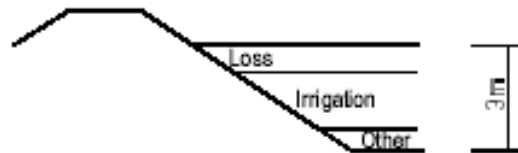
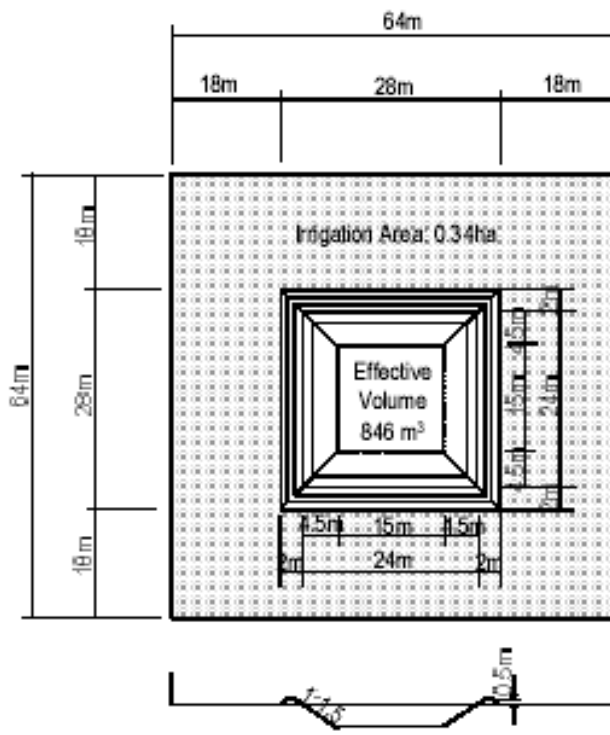
	Stage-1	Stage-2	Total
Canal 24	74ha	251ha	325ha
Canal 33	234ha	791ha	1025ha
Koh Kaek	492ha	1658ha	2150ha

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Figure II-4.2.2

ផែនទីតម្រូវការស្រូវ/ប្រព័ន្ធត្រូវការស្រូវសម្រាប់ការសាងសង់ស្ថានភាព

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Irrigable Area

Crop-1 (August to October)

Net Water Requirement = 400 mm (90 days)
 Effective Rainfall=240mm (Takeo Town, August - October)
 Irrigation Efficiency=0.80
 Gross Water Requirement for Irrigation= 200 mm
 Other Water Requirement = 50 mm
 Evaporation Loss=5mm/day x 90 days = 450mm
 Percolation Loss=2mm/day x 90 days = 180mm
 Effective Depth = 2.37m (3.00 - 0.45 - 0.18)
 Side slope of pond = 1:1.5
 Effective Volume:
 $(15m \times 15m + 22.11m \times 22.11m) \div 2 \times (3m - 0.45m - 0.18m) = 846m^3$
 $846m^3 \times 200/250 \div 200mm = 3,384m^2 = \underline{0.34 ha}$

Crop-2 (November to January)

Net Water Requirement = 400 mm (90 days)
 Effective Rainfall=0 mm (Negligibly small)
 Irrigation Efficiency=0.80
 Gross Water Requirement for Irrigation= 500 mm
 Other Water Requirement = 50 mm
 Effective Volume: 846m³
 $846m^3 \times (500/550) \div 500mm = 1,538m^2 = \underline{0.15ha}$

Required Catchment for the Pond

Crop-1 (August to October)

Monthly 80% dependable specific runoff in July = 42 m³/ha/month
 Initial Storage Requirement (by end of July)= 30 % = 253.8 m³
 Required Catchment = $253.8 \div 42 = 6.0 ha$
 = **6.0 ha (about 104 times of the pond area)**

Crop-2 (November to January)

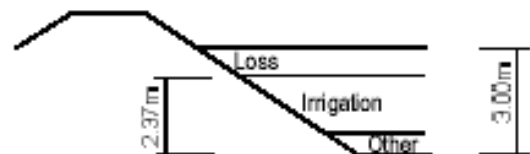
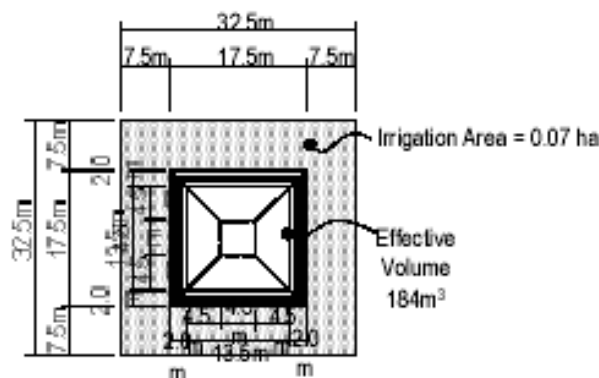
Monthly 80% dependable specific runoff in October = 327 m³/ha/month
 Storage Requirement (by end of October)= 100% = 846 m³
 Required Catchment = $846 \div 327 = 2.6 ha$
 = **2.6 ha (about 45 times of the pond area)**

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Figure II-4.4.1

ផែនការស្រូវស្រែចម្រុះស្រូវដោយក្រុមគណៈ



Irrigable Area

Crop-1 (August to October)

Net Water Requirement = 400 mm (90 days)
Effective Rainfall=240 mm (Takeo Town, August to October)
Irrigation Efficiency=0.80
Gross Water Requirement for Irrigation= 200 mm
Other Water Requirement = 50 mm
Evaporation Loss=5mm/day x 90 days = 450mm
Percolation Loss=2mm/day x 90 days = 180mm
Effective Depth = 2.37m (3.00 - 0.45 - 0.18)
Side slope of pond = 1:1.5
Effective Volume:
(4.5m x 4.5m + 11.61m x 11.61m) ÷ 2 x (3m - 0.45m - 0.18m) = 184m³
184m³ x (200/250) ÷ 200mm = 1,287m² = **0.07ha**

Crop-2 (November to January)

Net Water Requirement = 400 mm (90 days)
Effective Rainfall=0 mm (Negligibly small)
Irrigation Efficiency=0.80
Gross Water Requirement for Irrigation= 500 mm
Other Water Requirement = 50 mm
Effective Volume: 184m³
184m³ x (500/550) ÷ 500mm = 335m² = **0.03ha**

Required Catchment for the Pond

Crop-1 (August to October)

Monthly 80% dependable specific runoff in July = 42 m³/ha/month
Initial Storage Requirement (by end of July) = 30 % = 55.2 m³
Required Catchment = 55.2 ÷ 42 = 1.314 ha = **1.3 ha (about 72 times of the pond area)**

Crop-2 (November to January)

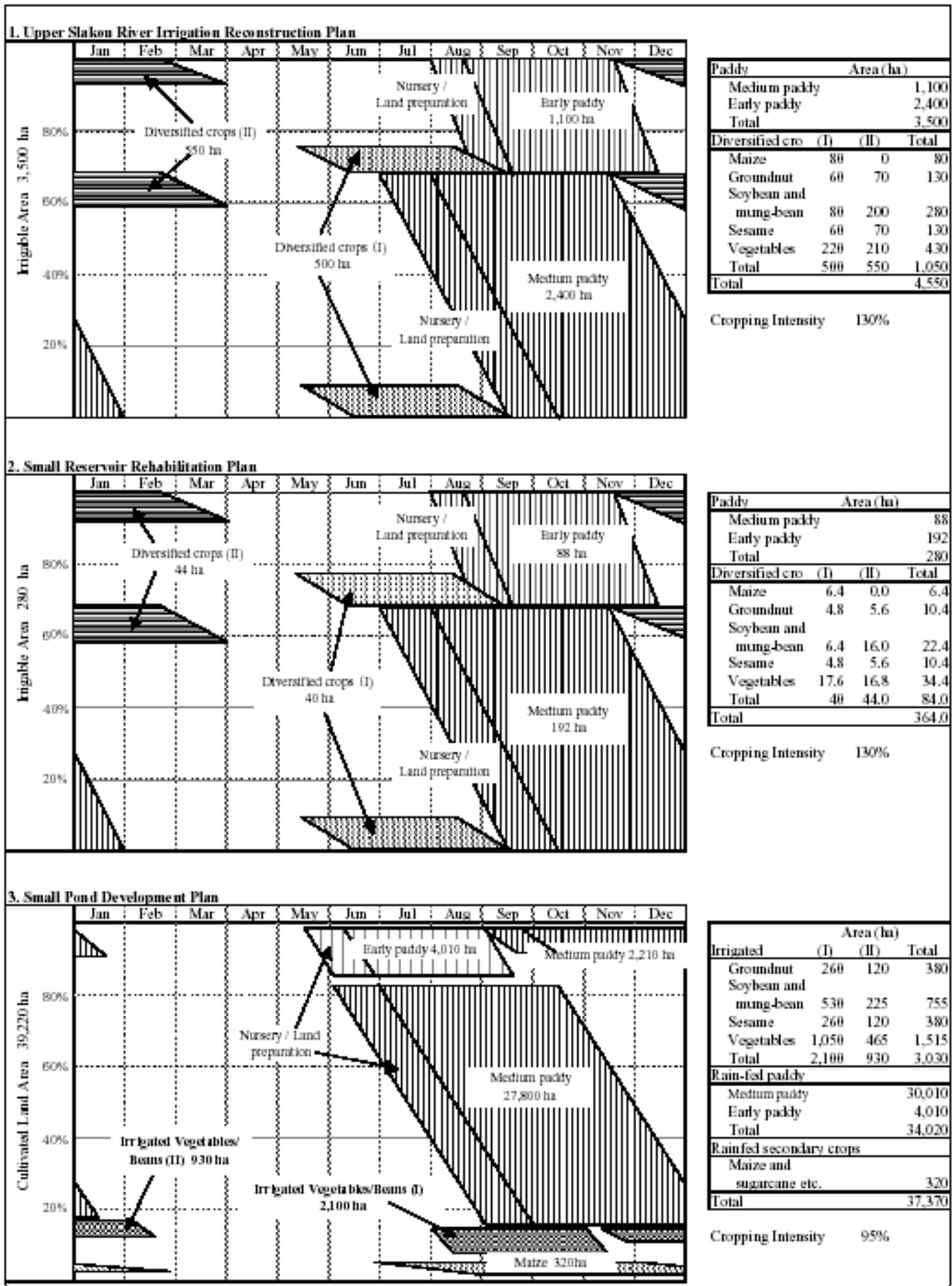
Monthly 80% dependable specific runoff in October = 327 m³/ha/month
Storage Requirement (by end of September) = 100% = 184 m³
Required Catchment = 184 ÷ 327 = 0.563 ha = **0.6 ha (about 33 times of the pond area)**

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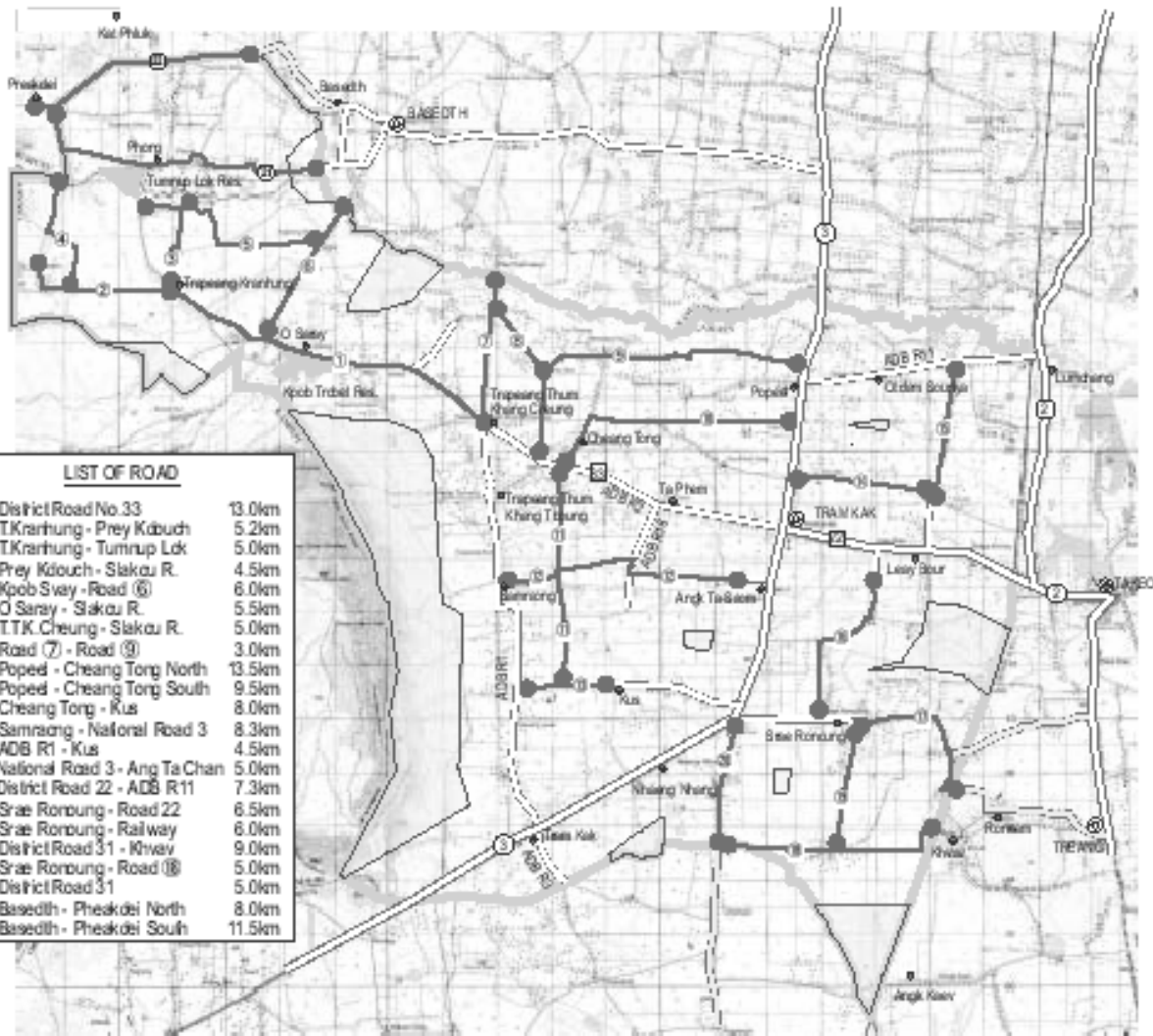
Figure II-4.4.2

វិធានការស្រែកស្តុកទឹកស្រែប្រតិបត្តិដោយកសិកររាងក្រ



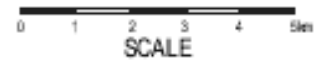
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Figure II-4.5.1
 គំរូសកម្មភាពនៃការដាំដុះដីសម្រាប់ស្រូវ និងដំណាំដទៃទៀត



LIST OF ROAD	
①	District Road No.33 13.0km
②	T.Krarhung - Prey Kibuch 5.2km
③	T.Krarhung - Tumrup Lok 5.0km
④	Prey Kibuch - Slakou R. 4.5km
⑤	Kpob Sway - Road ⑥ 6.0km
⑥	O Savy - Slakou R. 5.5km
⑦	TTK.Cheung - Slakou R. 5.0km
⑧	Road ⑦ - Road ⑨ 3.0km
⑨	Popeid - Cheang Tong North 13.5km
⑩	Popeid - Cheang Tong South 9.5km
⑪	Cheang Tong - Kus 8.0km
⑫	Samraong - National Road 3 8.3km
⑬	ADB R1 - Kus 4.5km
⑭	National Road 3 - Ang Ta Chan 5.0km
⑮	District Road 22 - ADB R11 7.3km
⑯	Srae Rongbung - Road 22 6.5km
⑰	Srae Rongbung - Railway 6.0km
⑱	District Road 31 - Khvay 9.0km
⑲	Srae Rongbung - Road ⑱ 5.0km
⑳	District Road 31 5.0km
㉑	Basedth - Prekdei North 8.0km
㉒	Basedth - Prekdei South 11.5km

LEGEND	
Provincial Capital	
District Center	
Commune Center	
Study Area	
Poor access areas (over 2km to the good primary or secondary road)	
National Road	
Main Road	
Road to be rehabilitated	
Good/Fair Condition	
Poor Condition	

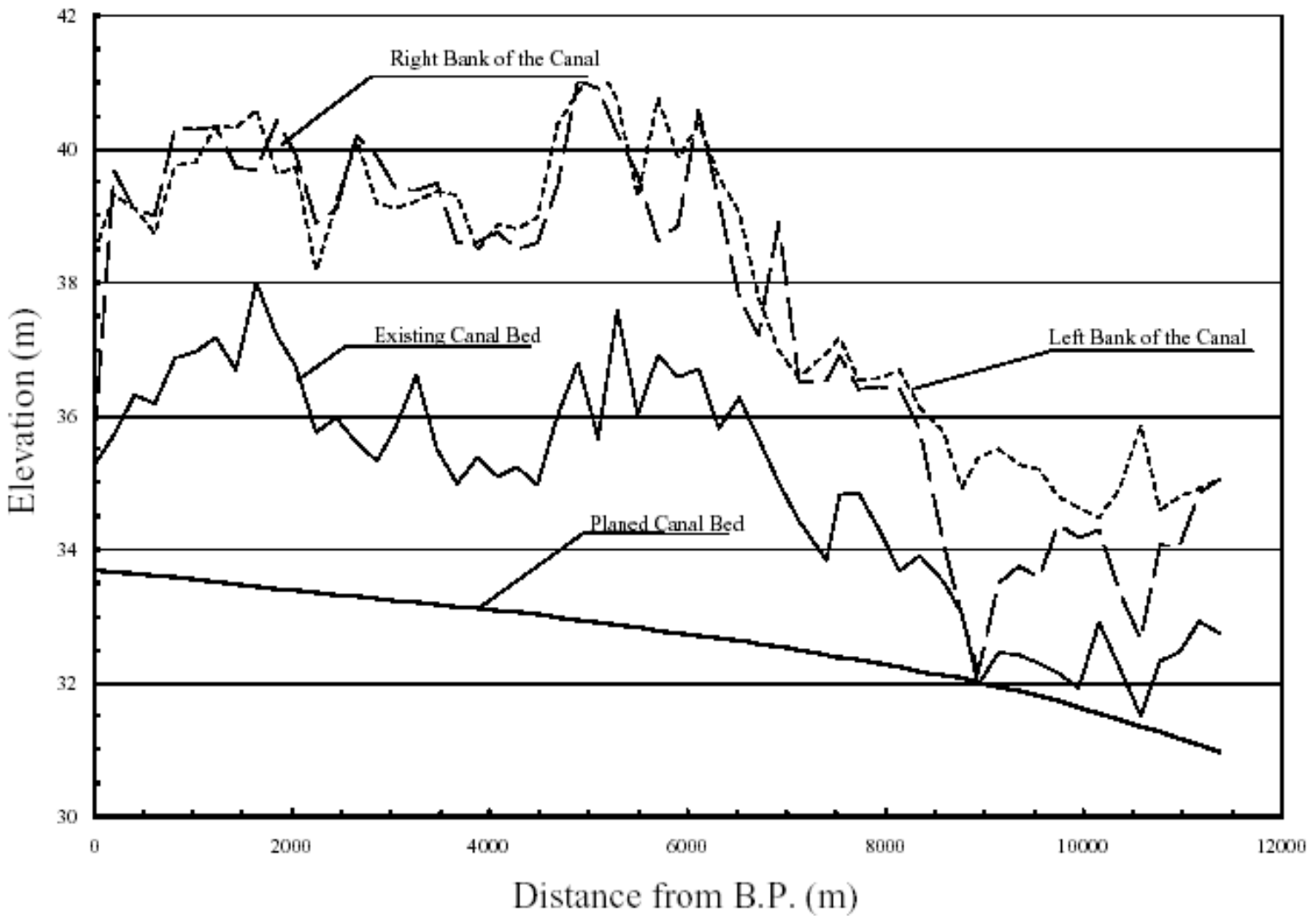


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Figure II-4.6.2

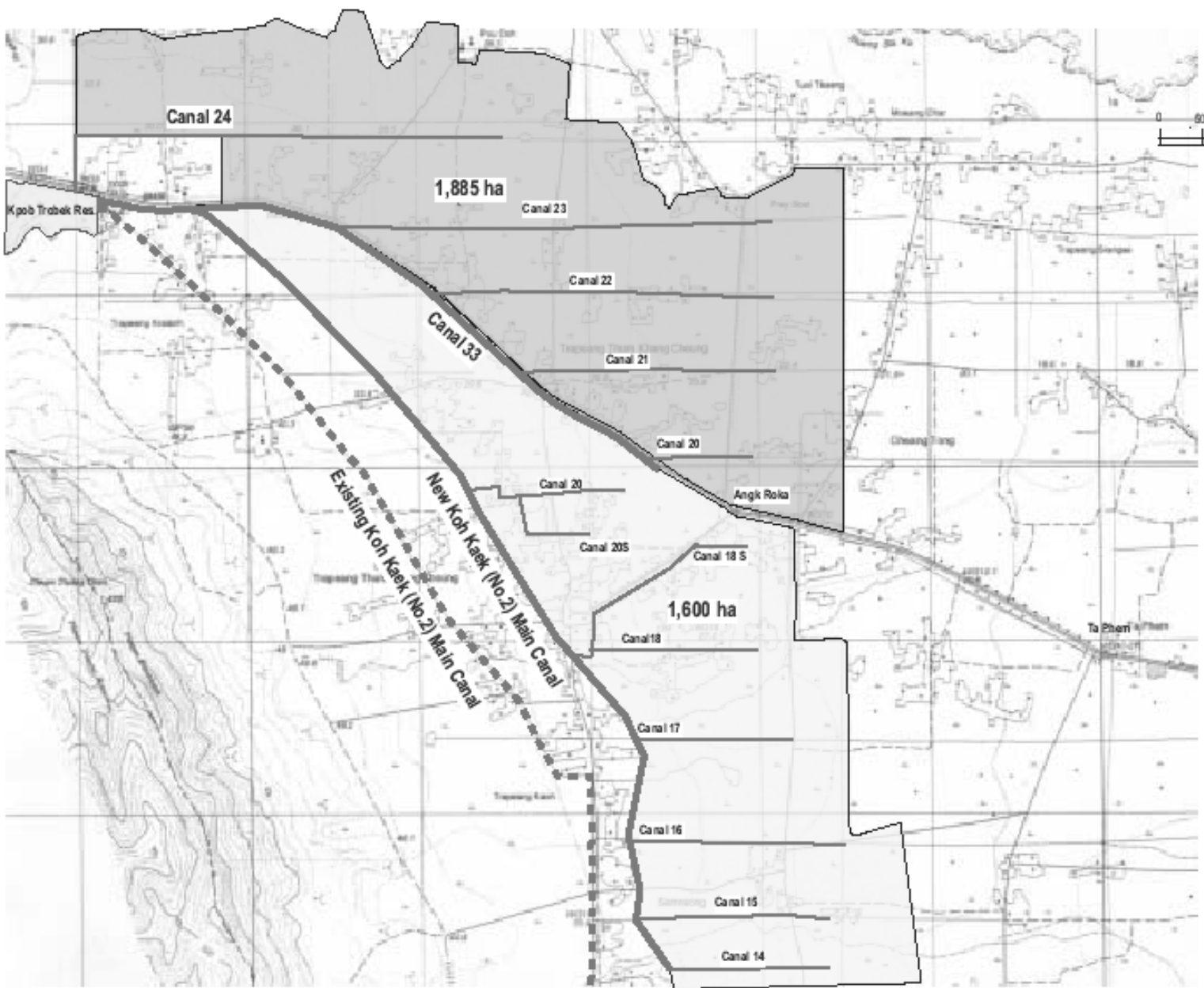
ផែនទីក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ



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Figure III-1.1
 តម្លៃកម្រិតបណ្តាញរបស់ប្រព័ន្ធធារាសាស្ត្រក្នុងតំបន់ស្លាកូ

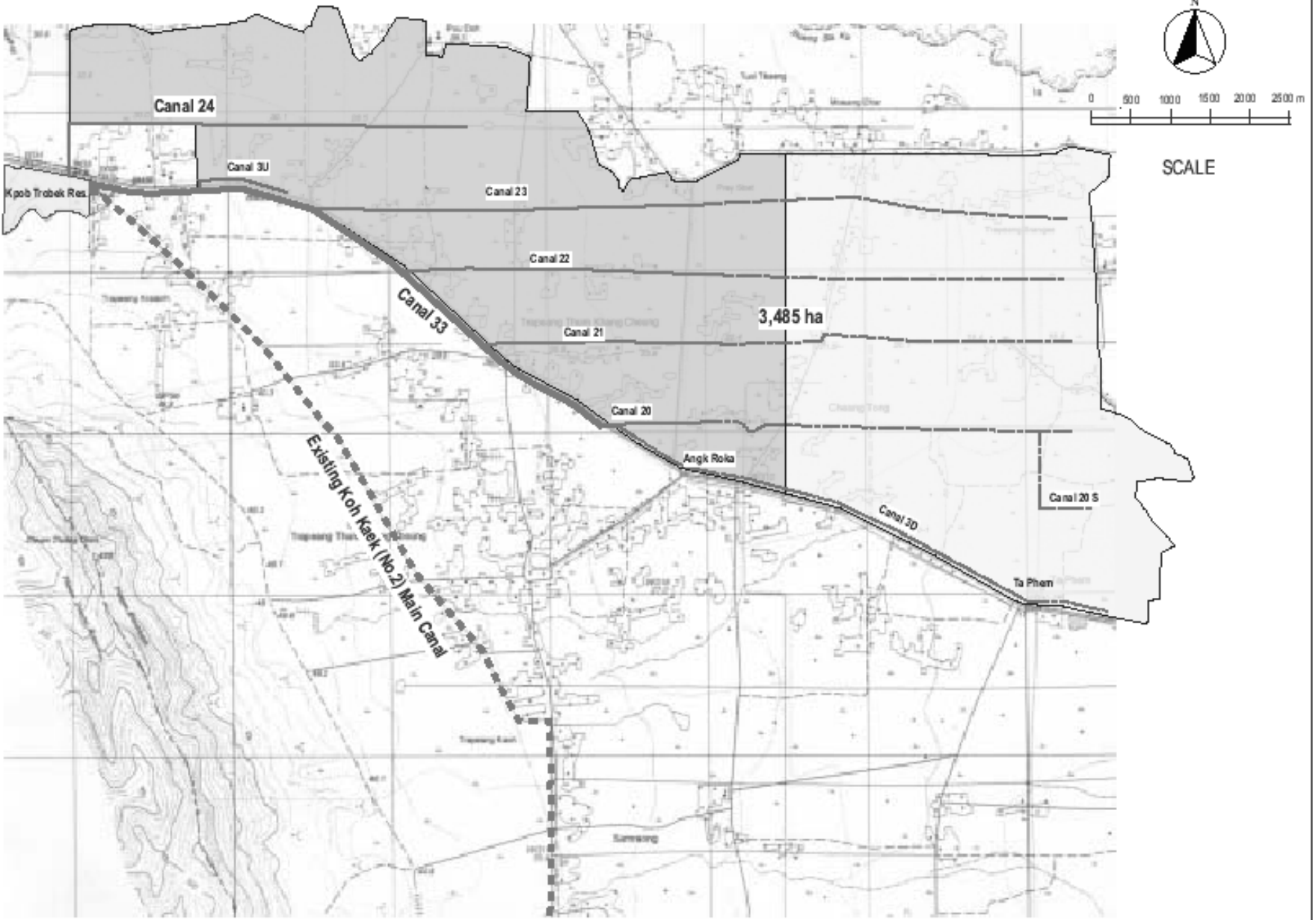


0 500 1000 1500 2000 2500 m

SCALE

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Figure III-2.1
ផែនការប្រព័ន្ធប្រដេកស្រែ ១



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Figure III-2.1

រូបភាពផ្នែកស្រោចទឹកលេខ ២