6 成果 6 の活動

6.1 3R 推進方策、方策導入上の留意点及び、導入の可能性

3R 推進方策、方策導入上の留意点及び導入の可能性を以下に示す。

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
1.Reduce	国の政策、法整備により、国民、事業者の減量化行動を誘導する方策	• 拡大生産者責任（EPR：Extended Producer Responsibility）	都市廃棄物	OECD（Organization for Economic Co-operation and Development）提唱。使用済み製品の処理または処分に関して、生産者が、財政的および、または物理的に相当程度の責任を負うという政策アプローチである。このような責任を課すことにより、発生源で廃棄物を抑制し、環境負荷の少ない製品設計を奨励し、一般のリサイクル・資源管理目標の達成を促進する。 ■ 日本では循環型社会形成推進基本法において、一般原則として事業者の責務を以下の通り規定。さらに、個別法において具体的な拡大生産者責任を規定。 〇製品・容器等の耐久性の向上及び修理実施体制の充実等 〇製品・容器等の設計の工夫及び材質・成分の表示、適正処分困難化の防止等 〇製品・容器等が循環資源となったものの引取り・循環的利用等 ■ ドイツ：グリーン・ドット制度（Duales Systeme Deutchland）：容器包装事業者（生産者、流通業者）にその製品に係わる廃棄物を引き取らせる制度の確立・管理を義務づける。	制度設計（対象廃棄物、財源の徴収方法等） 法制化 業界の協力と連携	現在のアルバニアへの導入は時期尚早である。

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		• 学校教育	都市廃棄物	廃棄物を含んだ環境問題に係る現状の問題点と環境保全の重要性の認識などを環境教育として学校教育のカリキュラムに取り入れる。（アルバニアの場合、国の役割？自治体の役割？）	教育制度 カリキュラムの構築 人材の育成 教材の開発	国の教育制度改革までは時期尚早である。
	地方自治体の減量化政策	重量制によるごみの有料化	都市廃棄物	指定袋によるごみの排出を義務化。指定袋にはごみ料金をチャージするため、住民は排出量に応じてごみ料金を負担する。ごみの排出者にとってごみ減量化のインセンティブが働く。	排出者の理解と協力。指定袋料金の設定。指定袋以外による排出の禁止指導及び監視。指定袋販売体制の構築と販売代金の回収システム。現行の料金徴収システムからの移行。	アルバニアでは、多くの自治体がごみ料金徴収の徹底を図るため、電気等公共料金徴収に絡めたごみ料金の徴収を実施しているため、現行のごみ料金徴収方法を変更するのは容易ではない。
		• 広報活動 • 減量化に関する実地体験 • 学校教育	都市廃棄物	行政の広報活動、学校教育、各種団体の活動支援を通じて、ごみ処理の現状及び減量化の重要性を認識させ、環境意識を向上させることにより、自発的な減量化行動を起こさせる。 ■ 対象：一般市民、生徒、事業者 ■ 媒体：インターネット、ポスター、リーフレット、メディアを通じた啓発 ■ 機会・手法：キャンペーン、イベント	プログラムの開発 財源の確保 体制の構築 関係団体・活動との連携	導入可能

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
	住民・事業者の意識改革及び自主的な活動による減量化方策	• ごみになり易いものを買わない、ごみを出さない生活習慣 • 環境にやさしい製品の購入 • マイバッグ運動 • 簡易包装	都市廃棄物	行政の広報活動、学校教育、各種団体の活動を通じて、ごみ処理の現状及び減量化の重要性を認識させ、環境意識を向上させることにより、自発的な減量化行動を起こさせる。	住民啓発、学校教育、地域活動など、多岐にわたる誘導策の実施	導入可能
		• エコラベルシステム	都市廃棄物	EU エコラベル（EU）、エコマーク（日本）、ブルーエンジェル（ドイツ）など各地域、国で独自の取り組みを行っている。 EU エコラベルは、環境への条件を満たした製品にエコラベルの使用を認めることで、企業側の環境保護への貢献を促進させる一方、消費者にも環境に優しい製品であることを伝え、製品の需要・供給の両面から環境に適した製品の促進を図るシステム。EU 内の製品販売または製造（予定）地域のエコラベル認証団体で申請手続き・認証を行っている。	製品の差別化に繋がるが、取得は任意で、企業の自己判断にゆだねられている。 消費者の意識向上	本システムの採用は、あくまでも企業の判断であるが、国が支援することも考えられる。 • 輸入製品に対する優遇策 • 国内企業の取得推進支援 • 消費者意識の向上支援
		• 環境にやさしい製品作り	都市廃棄物	容器の軽量化、包装の簡素化、詰め替え製品の普及、リサイクルし易い製品設計等	企業マインド製品の差別化 消費者の意識向上	現在のアルバニアへの導入は時期尚早である。

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
2.Reuse	住民・事業者の意識改革及び自主的な活動による減量化方策	• フリーマーケットの開催	都市廃棄物	NGO、市民団体等と協力し、市民が不用品、リサイクル品を持ち寄り、安価で売買するフリーマーケット、イベント等を開催する。	住民啓発 関係団体との連携 仕組み作り 行政の支援策	導入可能
		• 交換、修理しやすい製品の開発と部品の交換、修理によって再利用する習慣の醸成	都市廃棄物	交換し易い、修理し易い製品の開発。 交換・修理サービスの拡大。 交換・修理を促す普及啓発活動。	企業マインド商品の差別化 消費者の意識向上 住民啓発	現在のアルバニアへの導入は時期尚早である。
		• リターナブル容器の普及	都市廃棄物	中身を消費した後の容器を、販売店を通じて回収し、飲料メーカーが洗浄して再び使用する容器をいう。リターナブル容器はワンウェイ容器のようにごみにならないことから、ごみの発生抑制の手段として有効である。日本では、代表的なリターナブル容器はビールびんと一升びんであり、活（いき）びんともよばれる。 ドイツでは、ガラスびんの他に、リターナブル PET ボトルも流通しており、消費者の識別を容易にするため、リターナブル（Mehrweg）とボトル上に印字がある他、国内の環境保護団体や飲料業界等により組織されるリターナブル研究会（Arbeitskreis Mehrweg GbR）が任意の表示制度を普及している。	業界の協力 参加企業の差別化 消費者の意識向上	現在のアルバニアへの導入は時期尚早である。
3.Recycle	1)On-site	家畜の餌	家庭厨芥ごみ	家庭で発生した厨芥ごみを家畜の餌としてリサイクルし、ごみとして排出させない。	• Commune レベルの都市で	導入可能

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
	Recycle (Self-disposal)	コンポスト	家庭厨芥ごみ剪定枝、作物残さ	家庭厨芥ごみ、剪定枝、作物残さをコンポストとして利用し、ごみとして排出させない。	のごみの発生･排出実態とコンポスト可能性調査 • 未収集地区でのごみの発生･排出実態とコンポスト可能性調査	
	2)Off-site Recycle ・ Material Recycle	資源物の分別・回収 ①混合排出→選別施設→資源物市場 資源物の分別・回収 ②2 分別（Organic、その他） ・Organic：埋め立て処分 ・その他→選別施設→資源物市場	■ プラスチック類 （PET、ポリエチレン、ポリプロピレンその他） ■ 紙類 ・段ボール ・その他紙類 ■ 金属類 ・アルミ	資源化利用 ■ プラスチック類：フラフ、ペレット化等フィルム状のポリエチレンを溶融、あるいは硬質のポリプロピレン、ポリエチレンを破砕し再生原材料を生成する。 ■ 紙類：リサイクラー→一時集積所→中間業者・選別業者→製紙会社 ■ 金属類：回収、選別、溶融 ■ びん類 ・生きびん：生き瓶の回収。ボトルを種類別に選別し、洗浄、ラベルを剥がした後、それぞれの用途に合わせて専門会社に売	• 有価物としての市場性調査 • ウェストピッカーに対する社会的配慮 • 分別排出の導入 • 住民の理解と協力 • 収集体制の整備 • 排出機材の整	導入可能 ①、②、③ の評価・選定

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		資源物の分別・回収 ③ 品目別（Organic、紙類、プラスチック類、金属類、びん類） ・Organic：埋め立て処分 ・その他→選別施設→資源物市場	・鉄類	却。 ・カレット化、ガラス製造：回収、異物除去、色選別、溶融	備 • 収集機材の整備 • 選別・集積（民間リサイクル業者との連携） • ごみ料金体系 • コスト比較（収集コスト等の増加と処分コスト等の削減）	
		デポジット制度	飲料容器	ワンウェイ容器に対する強制デポジット制度。ビール、ミネラルウォーター、炭酸ガス入り清涼飲料について、2003 年 1 月から強制的に 25 セントのデポジットが課されることとなった。その後、対象となる飲料容器が拡大され、現在の対象は以下の通り。 ➢ ビール及びビールを含む飲料 ➢ 水（炭酸入り、炭酸無し） ➢ ソフトドリンク（炭酸入り、炭酸無し） ➢ 混合アルコール飲料 2005 年、全国的に統一された清算システム、ドイツ･デポジットシステム（DPG：Deutsche Pfandsystem GmbH）を設立し運営。	業界の協力 制度設計 参加企業の差別化 消費者の意識向上 行政の支援	現在のアルバニアへの導入は時期尚早である。

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		堆肥化 （コンポスト化）	家庭厨芥ごみ 市場ごみ 芝刈りごみ 剪定枝	有機性廃棄物を自然に存在する微生物によって、取り扱い易く、環境に害を及ぼすことなく、土壌還元可能な状態まで分解する技術のことで、コンポスト化とも呼ばれ、古くから有機性廃棄物の処理方法として用いられている。 一般家庭からの生ごみ、剪定枝等のみで堆肥化する場合や、し尿処理場の汚泥、蓄糞等と混合して堆肥化している事例がある。 • ごみ処分量の大幅な削減 • 住民・事業者の資源化意識の向上 • 宗教上の障壁	• 市場性 • 用途と品質 • 農業分野の法律との整合性 • コスト比較（収集コスト等の増加と処分コスト等の削減） • 排出・収集システムの構築 • 堆肥化技術の検討	導入可能
		飼料化	家庭厨芥ごみ 市場ごみ レストランごみ	熱加工・乾燥処理等と油分調整して粉末状にした飼料をつくる技術で、種類が一定している新鮮な生ごみを飼料化したものは食品残渣飼料（エコフーズ）とも呼ばれ、利用されている。飼料化は、原料である生ごみ等が変質していないことが非常に重要で、そのため廃棄物の発生場所から近い地点での処理が原則となる。 目に見えるサイクル ①レストラン→②資料化工場→③家畜生産者→①	• 市場調査 • 飼料化技術の検討 • 製品の安全・衛生性の確保 • 製品の品質確保と対象廃棄物の選定 • ごみ処分量削減効果 • 住民・事業者の資源化意識の向上 • 宗教上の障壁 • 農業分野の関連法規の適合性	導入可能

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		チップ化	芝刈りごみ 剪定枝	破砕機を用いて、チップ（細かい切れ端）にする技術である。 この技術の対象となるものとしては、剪定枝に限定されている。 生成されたチップは、土壌改良材、マルチング材、舗装材、クッション材、敷料、炭化材、製紙材料、ボイラー燃料、バイオガス化原料として利用することができる。また、堆肥化プラントなどで、生ごみ等と一緒に堆肥をつくる場合もある。	• 対象廃棄物選定 • ごみ処分量の削減効果 • 生成チップの用途 • 対象廃棄物収集システムの構築	導入可能
		バイオガス化	家庭厨芥ごみ 市場ごみ 芝刈りごみ	酸素がない状態で発酵させ、メタン菌などの嫌気性微生物の働きで、メタンと二酸化炭素が主成分のバイオガスを生成する技術のことで、メタン化、メタン発酵とも呼ばれている。 生成されたバイオガスの利用方法は、ガスエンジン、マイクロガスタービンおよび燃料電池による発電とその廃熱利用のほか、バイオガスからメタンを精製後、車両等の石油代替エネルギーとして利用がある。また、発酵処理後の残さは、固体と液体に分離され、それぞれ堆肥、液肥として利用することもできる（液肥の利用事例は少ない）。	• 処理技術の選定 • 生成ガスの用途と品質 • 排出・収集システムの構築 • コスト比較（収集・製造コスト等の増加と処分コスト等の削減） • 残さ処理 • ごみ処分量の削減効果 • 運転・維持管理技術の対応 • 運転・維持管理コストの対応	ティラナ市に限定

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
	・Thermal Recycle	炭化	可燃ごみ	ごみを低酸素、又は無酸素状態で加熱し、炭化（炭素だけが残る）させる技術である。 生成した炭化物は、石炭火力発電所やセメント工場などでの助燃材（石炭代替）や製鉄工場等での還元助剤（コークス代替）に利用されている。 炭化は、炭化物の取引先を確保しなければならないことに加え、引取先も限定される。	• 処理技術の選定 • 製品の品質と用途 • コスト比較（施設運転・維持管理コスト等の増加と処分コスト等の削減） • ごみ処分量の削減 • 運転・維持管理技術の対応 • 運転・維持管理コストの対応	ティラナ市に限定

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		固形燃料化	可燃ごみ	可燃ごみを加熱圧縮し、固形燃料にしたものである。生成された固形燃料はＲＤＦ（Refuse Derived Fuel）とも呼ばれ、廃棄物発電やボイラー燃料として有効活用されている。 固形燃料化は、炭化と同様に、固形燃料の取引先を確保しなければならないことに加え、引取先も限定される。	• 製造技術 • 製品の品質と用途 • コスト比較（施設運転・維持管理コスト等の増加と処分コスト等の削減） • ごみ処分量の削減効果 • 運転・維持管理技術の対応 • 運転・維持管理コストの対応	ティラナ市に限定

区分		資源化方策・技術	対象廃棄物	概要	導入上の留意点	アルバニアでの導入の可能性
		焼却（熱回収）	可燃ごみ	生ごみ、剪定枝等を含めて、可燃ごみとして排出されたものを、一括して焼却施設で高温燃焼により処理するもので、腐敗防止や安定化と合わせて減量化と減容化を行う。焼却によって発生する熱はボイラーなどで熱回収され、発電や余熱として利用される。 ガス化溶融方式は、可燃ごみを可燃性ガスと炭化物に分解し、発生したガスと炭化物を溶融炉に投入し 1,300℃以上の高温で燃焼し、溶融スラグを生成する。発生する熱は焼却施設と同様に熱回収して利用する。生成したスラグの有効利用方法の確立が求められている。	• 焼却技術の検討 • 回収熱の用途 • コスト比較（施設運転・維持管理コスト等の増加と処分コスト等の削減） • ごみ処分量の削減効果 • 運転・維持管理技術の対応 • 運転・維持管理コストの対応 • NIMBY(Not Install My Back Yard)	ティラナ市に限定

6.2　セミナー等の開催

6.2.1　廃棄物管理現況セミナー（2015 年 2 月 26 日）

A.　開催主旨

専門家チームと環境省との共催により、廃棄物関連の政府機関、地方自治体の廃棄物管理担当者、及び NGO 等を対象とし、『「ア」国における廃棄物管理状況及び今後にかかるセミナー（The Seminar on “Understanding the Current Situation and Considering the Future of Waste Management in Albania”）』を以下の目的で実施した。

- 目的 1：「ア」国における廃棄物管理調査の結果を関係者間で共有し、廃棄物管理の現況に関する理解を促進する。
- 目的 2：廃棄物管理行政の改善に向けた中央政府、及び地方自治体の廃棄物管理担当者の課題認識を共有するとともに、実施すべき行動について意見交換を行う。

B.　開催概要

B.1　開催日時

2015 年 2 月 26 日 9:30～12:30 にティラナ市内の Tirane International Hotel に於いて実施した。

B.2　参加者

廃棄物管理に関連する中央政府機関、州政府、地方自治体（自治体の統廃合後に残るとされる Municipality 及びパイロットプロジェクトの対象 Commune）の廃棄物管理担当者、さらに、廃棄物管理に関連する活動を行う NGO、ドナーの計 82 機関を招待し、計 42 機関から 63 名が参加した。参加者の概要は表 44 のとおりである。

表 44:参加者概要

参加機関名		参加人数
中央政府機関	環境省	3 名
	National Environmental Agency	1 名
	Regional Environmental Agency	1 名
	Regional Environmental Directorate	1 名
	都市開発・観光省	1 名
	交通インフラ省	1 名
地方政府機関	州政府（6 州）	8 名
	Municipality（22 市）	32 名
	Commune（Bushat、Pojan の 2 村）	3 名

参加機関名		参加人数
その他	NGO／ドナー（5 団体）	5 名
	専門家チーム	7 名
合計	42 機関	63 名

B.3 プログラム

プログラムは以下のとおりである。専門家チームから全国廃棄物調査の結果、及び Waste Flow についてのプレゼンテーションを行い、続いて同プレゼンテーション内容に関する参加者のディスカッションを実施した。

表 45:セミナーのプログラム

時間	内容	備考
9:00-9:30	参加者受付	
9:30-9:50	開会挨拶	環境省、専門家チーム
9:50-11:15	➢ 全国廃棄物調査プレゼンテーション ➢ 質疑・ディスカッション	専門家チーム
11:15-11:30	コーヒーブレイク	
11:30-12:30	➢ Waste Flow プレゼンテーション ➢ 質疑・ディスカッション	専門家チーム
12:30	閉会挨拶	

C. プレゼンテーション要旨

C.1 全国廃棄物管理状況調査

全国廃棄物管理状況調査の結果に基づき、以下の内容についてプレゼンテーションを行った。

- 全国廃棄物戦略、全国廃棄物計画の実施状況
- 全国の地方自治体における廃棄物管理の実施状況
- 廃棄物管理向上に向けた専門家チームからの提言

C.2 Waste Flow

Waste Flow について、以下の内容のプレゼンテーションを行った。

- Waste Flow の考え方
- Waste Flow の必要性
- 現況 Waste Flow の作成手順
- 将来の Waste Flow 作成にかかる検討事項

D. 質疑・ディスカッション要旨

プレゼンテーションに引き続き、プレゼンテーションの内容に関する質疑およびディスカッションを実施した。主な内容は以下のとおりであった。

D.1　プロジェクト全般について

- ✓ 自治体は中央政府からのどのような支援を要望するか。（専門家チーム）
- ✓ 自治体は意思がないわけではなく予算がないことが問題である。多くのドナーのプロジェクトは大都市に集中しており、小規模自治体にも注意を払ってほしいと考える。地方自治体の再編に際しては、セミナーやトレーニングなど、中央政府との共同の活動機会を設けていただきたいと考える。（Ballsh Municipality）
- ✓ 本プロジェクトから自治体が得られる便益はどのようなものがあるのか。（Duaras 州）
- ✓ 本プロジェクトでは、直接的にはパイロットプロジェクトの対象の自治体が便益を得るが、パイロットプロジェクトの対象外である自治体は、将来 3R ガイドラインの活用により間接的に利益を得られる。（専門家チーム）

D.2　自治体統廃合と廃棄物管理について

- ✓ Fier 州は 40 の Municipality と Commune から成っており、それぞれが異なったレベルの廃棄物管理を行っている。自治体ごみだけでなく、産業廃棄物や石油産業からの廃水による沿岸の汚染など、非常に大きな環境問題となっているとともに、地域の農業にも悪影響を及ぼしている。自治体の統廃合によって、より大きな行政単位での管理になると予想するが、今でさえ多様な管理レベルの自治体の管理に苦慮しているところであり、現実的には、より小さな自治体単位での管理が適切と考える。（Fier 州）
- ✓ われわれが活動を行う、より経済発展レベルの低い国では、第一に、①どこに処分するのかを決め、②収集を行うこと。この段階を達成して、次に③分別、そして④埋め立てを考えるべきとの方針でプロジェクトを実施している。アルバニアにおいても自治体の統廃合の後は、現行の処分場でもよいので、まずはどこに排出するのかを決めたうえで、処分場の数を減らすところから step-by-step で進めるのが良いと考える。（専門家チーム）

D.3　最終処分場について

- ✓ Duras 州の最終処分場（デポジットサイト）は州内の 20 万人分に加え、3～4 の他州の Commune も利用しており、2015 年には容量が満杯になる見込みである。最終処分場も大きな問題である。（Duaras 州）
- ✓ 本プロジェクトは 3R に焦点を当てているということをまず理解してほしい。環境省は最終処分場に関する政策を担当しているが、都市開発省も処分場の担当官庁である。（専門家チーム）
- ✓ 1 つ問題提起をしたい。全国調査の結果によると、73%の自治体が処分場を自治体の中に有しており、埋め立て地を利用しているのは 7%のみであるということなの

だが、処分場が合法である（政府の承認を得ている）からと言って、それで問題が無いということなのだろうか。合法、非合法の定義について、また、合法性の意味合いについて再考すべきである。また、埋め立て地の処分費と輸送費は分けて考えるべきである。輸送費は各自治体の埋め立て地までの輸送距離によって、各自治体によって負担されるべきものであるが、埋め立て地で行われる処理は同じであるので、環境省が介入して全国的に一律の料金を設けるべきである。さらに、処分費はより高くすべきである。廃棄物中の有価物は埋め立て場に到着するまでにウェストピッカーによって抜き取られてしまっているので、埋め立て施設でリサイクルによって収入を得ることも難しい。（Bushat Commune）

D.4　リサイクル、分別について

- ✓ Elbasn では、3~4 か月前より危機的な状況が表面化している。環境省と相談し、処理量 120～150 トン/日の焼却施設を現在建設中である。検討すべき問題を一つ上げるならば、リサイクル推進のためには 3 bin Collection システムなど、発生源で分別するシステムを導入するべきだと考える。（Elbasn Municipality）
- ✓ 英国では排出源で分別（3 bin Collection）を行っている。アルバニアにおいて分別回収を行うとなると、回収コンテナやトラックなどの追加的インフラの整備が必要になるという課題も別にあるが、日本ではどのように行っているのか。全国的に同じ回収方法を行っているのか。（NGO FLAG）
- ✓ 自治体によって異なる。一例として、ある自治体では 7 つの分別を行っている。40 年前は日本も分別など行わずに排出し埋め立て処理を行っていたが、高度成長期を経、廃棄物発生量が増加したことで排出量の抑制、焼却処理の必要性が生じ、今に至っている。（専門家チーム）
- ✓ 環境省としては、より清潔で価格も高くつくため、発生源で有価物を分別すべきという見解について決定を行った。（環境省）
- ✓ まずは現状把握が先決である。将来的には発生源で分別することが望ましいが、すぐに現状を変えることは非常に難しい。そのために、まずは Waste Flow で現状を把握し、これに基づいて将来計画を立てることが望ましい。（専門家チーム）
- ✓ これまでに Shkodër、Bushat、Lezha などいくつかの都市で発生源での分別が試みられてきたが、成功事例はない。成功のためには住民の意識啓発が必要であると考える。（Bushat Commune）
- ✓ 地方自治体にとっての問題は、予算がないことである。（Ballsha Municipality）
- ✓ 環境省としては、地方自治体から提案を受けることを望む。自治体で計画を作成・承認し、環境省に提案とともに予算についても相談を行うといったことを行ってほしい。（環境省）

✓ 両方とも必要であるが、大切なことは中央政府と地方自治体が歩み寄って、お互いの課題意識を共有することである。（専門家チーム）


環境省 Abeshi 局長挨拶


会場の様子


プレゼンテーションの様子


質疑の様子


環境省担当者発言


参加者発言

E.　参加者からのフィードバック要旨

参加者にアンケートを配布し、セミナーに関するフィードバックを得た。フィードバックの主な内容は以下の通りであった。

E.1　本セミナーの内容、及び今後のセミナーで期待する内容について

✓ セミナーの内容は廃棄物管理に関わる関係者にとって重要な内容であり、調査に基づいた統計的データをもとにアルバニア国（以下「ア」国）の廃棄物管理の実態をよく反映したものであった。（参加団体全般）

- ✓ 今後のセミナーにおいては、自治体からの廃棄物管理にかかる情報収集のための財政メカニズム、管理手法に関する内容を希望する。（中央政府機関）
- ✓ 中央政府からの支援、財政メカニズム、他国や他自治体における具体的な活動事例や成功事例の紹介、住民啓発活動、自治体の統廃合後の清掃サービスの実施体制等についての内容を要望する。（複数自治体）
- ✓ 廃棄物管理にかかる課題を解決するための具体的な計画策定に関する内容を要望する。また、3 地域で行われるパイロットプロジェクトからの知見・経験の共有について期待する。（複数自治体）
- ✓ 分別方法、リサイクルについての具体的な内容についてのディスカッションを期待する。また、分別収集にかかる住民啓発が重要であり、今後のセミナーでは住民啓発の具体的な手法にフォーカスした内容を希望する。（複数自治体）
- ✓ 他地域における廃棄物管理等、具体的事例に基づいた内容、実際のプロジェクト実施における課題についてのディスカッションを希望する。（中央政府機関、複数自治体）
- ✓ 中央政府機関と地方政府の協力促進のためのイニシアティブについてのディスカッションを希望する（複数自治体、NGO）。

E.2　廃棄物管理実務におけるその他課題について

- ✓ 実施機関レベルでの正確な廃棄物のデータ把握が困難であることが課題であるため、収集、運搬、処理におけるガイドライン策定に関する支援を要望する（中央政府機関）。
- ✓ 分別や 3R に困難を抱えており、住民の意識啓発を進めていくことが重要であると感じている。（複数自治体）
- ✓ 分別回収を開始したが、分別処理システムやリサイクル技術を持たないので最終的にはまとめて処理されることになってしまう（複数自治体）
- ✓ 廃棄物の排出者からの料金収集が困難である（Commune）。
- ✓ 不十分なインフラ、コンテナ不足、分別収取のためのインフラ不足、収集車両の老朽化、処理場における車両の不足等の多くの問題を抱えている。また、最終処分場の課題（処分場への支払い等）も大きな課題である（複数自治体）
- ✓ 財源不足、廃棄物管理にかかる技術的および法的メカニズムの不足、廃棄物管理部門における人員の不足（複数自治体、NGO）

F.　セミナーの成果

本セミナーでは、専門家チームから「ア」国の廃棄物行政の現状について共有を行う

とともに、Waste Flow の基本概念について紹介を行った。

本セミナーにおいて、廃棄物管理に関する政策立案機関である中央政府と廃棄物行政の実施組織である自治体が一堂に会し現況についての認識共有が図られたことは一つの成果であると考えられる。一方、Waste Flow は、全国調査の結果からも明らかとなったとおり廃棄物管理向上に向けた現況把握の第一歩として非常に重要なツールであるが、「ア」国の中央政府、自治体にとっては新しい概念であり、今後、セミナー等を通して理解が深められていくとともに、各自治体での導入方策の検討や、導入時における中央政府の支援体制構築、自治体のキャパシティビルディングが行われていくことが望まれる。

ディスカッションにおいては、中央政府と自治体それぞれの課題意識が挙げられた。自治体からは、住民意識の向上にかかる課題や、小規模の Municipality や Commune では支援や予算が不足していることから、具体的なアクションをとることが困難であるといった点が主な課題として挙げられた。一方、中央政府からは、各自治体レベルでどのような支援や予算が必要とされているかの把握が困難であり、自治体からの積極的な提案、相談を要望するとの意見であった。

住民意識の向上に関しては、本プロジェクトで実施するパイロットプロジェクトで効果的な住民意識向上活動の方途を模索するとともに、セミナー等の機会においてこれら経験、成功事例を共有することが自治体にとって有用であると考える。また、本セミナーにおいて中央政府と地方政府のコミュニュニケーションの機会が得られたことは、中央と地方の連携に向けた第一歩となる成果である。加え、このような機会は本プロジェクトで策定する 3R ガイドラインの普及においても有効であると考える。

6.2.2　3R ガイドライン（案）説明セミナー（2015 年 5 月 12 日）

A.　開催主旨

専門家チームと環境省との共催により、地方自治体の廃棄物管理担当者を対象とし、『第 1 回　3R ガイドラインに関するセミナー（”The First Workshop for 3R Guideline”）』を以下の目的で実施した。

- 目的 1：3R ガイドラインの考え方・構成、国家廃物計画との関係性についての理解の促進。
- 目的 2：3R ガイドラインのうち、3R アクションプランにおけるごみフローの作成方法、及び 3R アクションプランの作成方法の理解促進。

B.　開催概要

B.1　開催日時

2015 年 5 月 12 日 9:30～15:30 にティラナ市内の Tirana International Hotel に於いて実施した。

B.2　参加者

地方自治体（自治体の統廃合後に中心となるとされる自治体、及びパイロットプロジェクトの対象自治体）の廃棄物管理担当者を主として、廃棄物管理に関連する中央政府機関を含めた計 66 機関を招待し、計 28 機関から 44 名が参加した。参加者の概要は表 46 のとおりである。

表 46:参加者概要

参加機関名		参加人数
中央政府機関	環境省	2 名
	都市開発省	2 名
	交通インフラ省	1 名
地方政府機関	Municipality（23 市）	32 名
	County（1 州）	1 名
	Commune（Bushat）	1 名
その他	専門家チーム	5 名
合計	28 機関	44 名

B.3　プログラム

プログラムは以下のとおりである。専門家チームから 3R ガイドラインの基本的な考え方と構成に関するプレゼンテーションを行い、その後、3R アクションプラン策定の基礎となるごみフローの策定、及びごみフローを取り入れた 3R アクションプランの策定について実習を交えたワークショップ形式で説明を行った。

表 47:セミナーのプログラム

時間	内容	備考
9:00-9:30	参加者受付	
9:30-10:40	開会挨拶	環境省、専門家チーム
9:40-10:15	➢ 3R ガイドラインの基本方針説明	専門家チーム
10:15-10:30	コーヒーブレイク	
10:30-12:00	➢ 3R アクションプランごみフローの作成（実習形式）	専門家チーム
12:00-13:00	昼食	
13:00-15:00	➢ 3R アクションプラン（Part I : 廃棄物管理の現況と課題）の策定（実習形式）	専門家チーム
15:00-15:10	➢ 参加者からのフィードバック	
15:10-15:15	閉会挨拶	環境省

C.　実施内容要旨

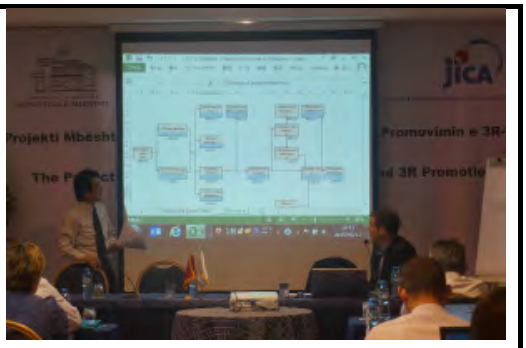
C.1　3R ガイドラインの基本方針説明

以下の内容についてプレゼンテーションを行った。

- 3R ガイドラインの背景、基本概念、策定目的、構成の紹介
- 3R ガイドライン基本方針の紹介

C.2　3R アクションプラン・作成ワークショップ

3R ガイドライン・3R アクションプランの作成について、ごみフローの作成方法と 3R アクションプラン（Part I : 廃棄物管理の現況と課題）の策定方法について説明を行った。また、説明に続き専門家チームの用意したごみフロー作成エクセルシート、3R アクションプランのワード様式を用い、参加自治体のデータに基づいた 3R アクションプランの作成実習を実施した。

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>会場の様子</td><td>ごみフローの説明</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>説明に基づき各自作業</td><td>作成方法の指導</td></tr>
</table>

D.　参加者からのフィードバック要旨

参加者にアンケートを配布し、セミナーに関するフィードバックを得た。フィードバックの主な内容は以下の通りであった。

D.1　セミナーの内容について

セミナーの内容については、主に以下のフィードバックがあった。

- 廃棄物管理に関する計画策定方法を、考え方の説明に併せ実践が伴ったセミナーであったため興味深く、有益であった。現場レベルの担当者にとって必要な内容が共有されたセミナーであった。
- フィールドワークに基づき収集された情報が豊富に提示され、これらは自治体自身で把握できていない情報であったため、興味深い内容であった。
- ごみフローは自治体で認識している現況と大きな相違はないと感じたが、廃棄物管

理の在り方については多くの努力を必要とすると感じた。今回のセミナーは次の行動を始めるにあたり、よいきっかけとなる。

- 3R アクションプランの現況把握において、財務状況の項目は多くの自治体にとって情報を入手することが非常に困難であると考える。廃棄物管理の改善には、技術的な側面のみならず財源的な課題も大きい。
- 次回のセミナーにも参加したいが、自治体の抱える課題の共有と解決に向けて中央省庁のより積極的な参加が望ましいと考える。

D.2　3R アクションプランの廃棄物管理における活用

今回のセミナーを受け、3R アクションプランに基づき各自治体で実施したいと考える 3R アクションについて質問を行った。16 件の回答があり、その結果は下表のとおりであった。住民啓発活動に続き、分別回収の導入やリサイクル施設の導入に興味を持つ参加者が多かった。

表 48:3R アクションプランに基づき実行したいと考える 3R アクション

3R アクションプランの内容	回答数（16 回答中）
分別回収の導入	9
住民啓発活動の実施	12
環境配慮型の製品、生活習慣の促進活動	4
有機廃棄物のコンポスト導入	1
リサイクル施設の導入	9

E.　セミナーの成果

本セミナーでは、専門家チームから 3R ガイドラインの説明を行うとともに、3R ガイドラインのうち3Rアクションプランの策定方法についてワークショップ形式で紹介を行った。

本セミナーにおいては専門家チームからの説明にとどまらず実際に演習を行うなかでごみフローの考え方、3R アクションプランの作成方法についての説明を行ったことで、各自治体から計画の策定方法を学ぶ機会になった等のコメントもあった。このことから、今後自治体において 3R アクションプランが個々に作成され、現状を踏まえた 3R アクションを検討していく過程の第一歩となったと考えられる。

一方、3R ガイドラインの取り上げは、2015 年 2 月に実施したセミナーに次ぎ今回セミナーが 2 度目であったことからも、各自治体が 3R ガイドラインを十分に理解し、各地域の実情に合わせたアクションプランの策定に至るまでにはさらなる説明機会が必要であると考えられる。次回以降計画している第二回 3R ガイドラインセミナー等の機会において、引き続き自治体への技術移転を行っていくことが有効と考えられる。

F. 環境省の関与（日本語のみに掲載）

本プロジェクトのカウンターパート機関である環境省は3Rガイドラインの策定機関として位置づけられ、これに基づいた3Rアクションプランについても環境省が主体となり、各自治体への普及、策定支援の役割を担っていくことが期待される。本セミナーの実施にあたり、専門家チームが環境省に赴き、上記の説明を実施した。

しかしながら、今回セミナーにおける環境省担当者の参加状況は非常に限定的であり、将来的に3Rアクションプランの策定支援機関となるべく役割は環境省自身において十分に理解されていない状況であると判断される。今後同様のセミナー等を実施する機会においては、上記の位置づけを十分に認識していただいたうえで、より主体的な関与が望まれる。

6.2.3 第 2 回 3R ガイドライン（案）説明セミナー兼パイロットプロジェクト中間報告（2016 年 3 月 23 日）

A. 議事

日時：2016 年 3 月 23 日、8:30 から 16：00

場所：「Teuta Room」Tirana International Hotel

Time	Program	By;
8:30 – 9:00	Registration	
9:00 – 9:10	1. Opening Remarks	MoE
9:10 – 9:20	2. Purpose of the Seminar	JET
9:20 – 10:30	3. 3R Guideline -1) Objectives and component of the Draft 3R Guideline & National Basic Policy for 3R of Waste	JET
10:30 – 10:45	<< Coffee Break>>	
10:45 – 12:30	4. 3R Guideline -2) Selection of 3R Activities and 3R Action Plan	JET
12:30 ー 13:30	<< Lunch >>	
13:30 – 14:00	5. Pilot Project in Vau i Dejes Municipality: Rescheduling collection and separation of agricultural waste	JET Vau i Dejes Municipality
14:00 – 14:30	6. Pilot Project in Tirane Municipality: School recycling toward community recycling	JET Tirane Municipality
14:30 – 15:00	7. Pilot Project in Cerrik Municipality: Improvement of waste collection in prep	JET Cerrik Municipality
15:00 – 15:15	<< Coffee Break>>	
15:15 – 15:45	8. Discussion	Facilitated by MoE
15:50 ー 16:00	9. Closing Remarks	MoE

B.　写真

会場の様子

会場の様子

PP 発表（Vau I dejes 市）

PP 発表（Tirana 市）

PP 発表（ツェリック市）

質疑応答

図 30：ワークショップならびにプロジェクト進捗報告会の様子

C. PP 評価指標設定

C.1 バウイディアス市 PP 評価マトリックス

ﾊﾟｲﾛｯﾄﾌﾟﾛｼﾞｪｸﾄ名	期待される効果	評価指標	自治体による継続可能性・留意点 (2016年3月時点)	他都市への適用可能性・留意点 (2016年3月時点)
Phase 1 収集サービスの質の改善や頻度の向上	1. 手作業で小トラックに積み込み収集するのに対して、コンテナを利用して大型コンパクタトラックを利用することで収集効率が上がる 2. 定期的なサービスを提供することで、住民の行政に対する信頼度が上がり、マナー向上などを訴えやすくなる 3. 街の景観が美化される	1. 収集作業記録による統計分析比較 2. 住民アンケート調査などで満足度を計る 3. 目視による確認と住民アンケート調査など	1. 質と頻度の高い収集にはそれなりの予算が必要である。そのため、自治体が独自に継続できる予算と質のバランスが求められる	1. 一般的に、非効率な収集を行っている地域において、この種の改善は有効であると考えられる 2. ただし、コンテナやコンパクタを有さない都市はそれを調達する必要がある 3. また、それに伴う収集運搬の費用も検証する必要がある
Phase 2 収集マナー改善 (農業ごみ分別排出) To establish an appropriate waste discharging system	1. 大量に地面に排出された農業ごみを別途積み込み作業する必要がなく、収集効率が上がる 2. 住民の排出マナーが向上し、ごみ分別に対する意識が高まる 3. 分別排出された農業ごみをオフサイトコンポストに利用できる 4. 街の景観が美化される	1. 収集作業記録による統計分析比較 2. 住民アンケート調査などで意識度や協力度を計る 3. 排出された農業ごみの状態や堆肥化の実施 4. 目視による確認と住民アンケート調査など	1. PPの枠組みの中では、農業ごみのコンテナ運搬車両を一定期間だけレンタルする。そのため、一定期間終了後に市が独自に運搬車両を調達しなければ、継続が難し	1. 農業ごみの排出マナー、仕組みに問題を抱える自治体においては、非常に有益なものになると考えられる。また、農業ごみに係らず、一般ごみでも排出マナーが悪くて収集に影響を与えている場合には、本PPの応用で問題が解決可能である 2. ただし、新たに専用コンテナや収集車両が必要になるので、そのあたりの調達や維持管理費を検討する必要がある
Phase 3 3R活動 (堆肥化、オフサイトコン	1. 処分場で埋め立てられるごみが削減される 2. 住民によって分別された農業ごみが堆肥化された場合、住民の分別排出に対するインセンティブが高まる 3. 堆肥化された製品が各農家で利用されると、環境に優しい循環が創出される	1. 堆肥化量記録 2. 住民アンケート調査などで3Rに対する意識を計る 3. 堆肥化された製品の流通、利用記録	1. 一般的に、堆肥化や3Rは直接的な効果や利益を生みにくいため、根付くのに時間や労力がかかる。 2. 堆肥化された製品の利用先が確保されなければ、継続の意義が見いだせないため、難しい。製品が販売される目途が立てば、最上である。	1. アルバニアは概して農業が盛んであるため、特に地方都市では農業ごみが多く排出されていると見られる。埋め立てられている農業ごみを堆肥化できると、非常に効果 2. 堆肥化メソッドがシンプルで汎用性が高くないと、他都市での普及は難しい。

C.2　ツェリック市 PP 評価マトリックス

パイロットプロジェクト名	期待される効果	評価指標	自治体による継続可能性・留意点 (2016年3月時点)	他都市への適用可能性・留意点 (2016年3月時点)
Pilot Project 1 排出・収集改善とそれに伴う散乱ごみの改善	1.　決まった曜日、時間にごみの収集サービスを提供することによる、収集サービスの質の向上。	1.　収集開始時間、終了時間、一定の収集ポイントにおける収集時間をモニタリングにより計測 2. 住民アンケートによる満足度調査	1.　収集車両の故障による、収集の中止あるいは遅延することによって、住民の収集サービスに対する信頼を失い、適正排出の協力が得られなくなる恐れがある。従って、収集車両の日常及び定期的な管理は重要である。	1. 農村部を持つ自治体は収集範囲も広いため、各家庭に配慮したコンテナーの設置が難しい。ただし、このような地区は家庭の中の誰かが在宅しているケースが多いため、音楽を流しながら直接収集する戸別収集(door to door collection with music)は、排出マナーの向上、収集サービスの質の向上及び地区の散乱ごみの防止に有効である。
	2.　排出ルールに従った、適正排出マナーの向上	1.　適正排出、不適正排出ごみ袋数をモニタリングによりカウント。	2. 本戸別収集は旧来のコンテナー収集に比べて住民と収集クルーの関わりが強い。そのため収集に対する住民の満足度を向上させるために、収集クルーに住民サービスを提供するという意識を持たせるための定期的な教育が必要である。	2.　ただし、本収集システムは個々の家庭に対する理解と協力が不可欠であるため、実施前及び実施途中において住民への啓発活動は重要である。
	3.　地区のごみが散乱している状況が改善される。	4. 旧コンクリート製排出地点の不適切な排出状況を目視によるモニタリング 5. 住民アンケートによる、地区の景観改善調査		3. また、定時収集を提供できる収集車両の適切な管理体制の整備も必要である。
Pilot Project 2 資源物の分別収集	1. 住民のごみの減量化・資源化に対する意識が高まる。	1. 資源物の種類別収集量をモニタリング調査により計量 2. 住民アンケートにより、減量化・資源化意識の変化、PPへの協力度などを調査する。	1. コストがかかることを理解する必要がある。	1. 適切に処分できる処分場の不足及び既存処分場が及ぼしている環境に対する負の影響は、全ての自治体が抱えている共通の問題である。本PPは処分ごみ量を減らす一助となる。また、排出段階で住民の協力の基に実施する資源物の分別収集は、環境改善の意識の向上に非常に有効である。特に、本PPで示したベル方式による資源物の収集は、住民の意識、関心を持続する上で有効である。
	2. 環境改善に貢献する本取り組みを通じて、市の廃棄物行政に対する住民の理解が得られる。	3. 資源物収集量及び売却益等のPPの結果を住民に周知する。 2. 住民アンケートにより、減量化・資源化意識の変化、PPへの協力度などを調査する。	2. 収集頻度、収集資源物の保管方法、社会的な問題があるもののウエストピッカの活用などの検討を通じて、資源物の分別収集コストの削減方法を検討する。	
	3. 収集及び処分ごみ量の減量化を図ることが出来る。	1. 資源物の種類別収集量をモニタリング調査により計量	3. 資源物分別収集を実施することにより、環境に対する負荷の軽減、将来の広域処分場への収集ごみの運搬費の負担の軽減が図れる。以上のことを、市は総合的に判断をして、住民の理解を得る必要がある。	2. ただし、資源物の分別収集には自治体の多くの努力とコストがかかることを十分理解する必要がある。検討に当たってはCerrikにおけるPPの結果を参考にすることを推奨する。
	4. 処分場の環境改善の一助となる。	1.資源物の種類別収集量をモニタリング調査により計量		3. なお、Cerrik市の一部地区で、資源物の分別収集実施前に行った排出収集改善PPを実施した。同様に、現行の廃棄物管理が適切に行われていない自治体においては、資源物の分別収集を実施する前に、廃棄物処理の改善を優先すべきである。

C.3　ティラナ市 PP 評価指標マトリックス

パイロットプロジェクト概要	期待される効果	評価指標	自治体による継続可能性・留意点 (2016年3月時点)	他都市への適用可能性・留意点 (2016年3月時点)
Phase I コミュニティへの入り口としての学校リサイクルプロジェクト	1.　学校で発生するごみのうち、PETボトル、アルミ缶、小さなジュース瓶のコンテナへの排出量が減少する。	1. 学校から分別排出されリサイクルに回されるPETボトル、アルミ缶、対象ジュース瓶の量。（収集記録による確認）	1.　リサイクル業者と学校間のやり取りを確実にするためにプロジェクトがモニタリングすることとしているが、市や学校自身によるモニタリング体制の構築が必要となる。	1.　廃棄物行政の観点から"3R"の目的を市民に認識してもらうためには有効である。
	2.　生徒たちが分別排出を通じてごみの排出量を実感し、また分別排出の効果を体感する。	2. 生徒たちへの分別排出活動への意識向上度（アンケート）。		
	3.　生徒たちの分別排出の経験が家族や近隣コミュニティ住民に伝達される。	3.　学校生徒の親が学校で実施されているリサイクル活動について認識している（学校を通じた親へのアンケート）。	2.　ティラナ市内であっても地域毎に出入りするリサイクル業者により取り扱う資源ごみが異なる可能性があり、学校で分別するごみと取引可能なごみをマッチングさせることで不要な労力（生徒のやる気喪失、リサイクリングへの不信感につながる）を避ける必要がある。	2.　アルバニア国内でのリサイクル市場が限られていたり、流通手段が限定されている資源ごみについては、量が確保できるように収集ルートを構築したり、さらに上流での「市場開拓・誘致」といった組織的な取り組みが必要となるため、限界が見えやすい。
Phase 2 資源ごみの分別排出・収集の学校近隣コミュニティへの拡大	コミュニティ住民が資源ごみ分別収集の重要性とルールを理解する。	住民へのアンケート調査による確認。	3.　市として住民啓発の費用を個別に持ち合わせておらず、収集業者へも収集作業と一括で契約しているため、他地区で実施する場合スタート時の啓発・継続モニタリングを可能にする体制が必要。	3. 各種リサイクル工場が近隣にある大都市においては収集人も多いと考えられ、取引されている資源ごみに合った分別であれば導入可能性は高い。
	ラプラカ地区のコンテナへ排出されるごみ量が、ある程度削減される。	地域から分別して排出される資源ごみ量が増える。 地域から排出される一般ごみに含まれる資源ごみ量が減少する（地域内でのサンプルによるWACS against 2014 WACS result）。		4. 小規模都市の場合、市全域（あるいは、旧LGU 地区内）での資源物収集業者の状況がより均一である可能性が高く、統一プログラムが実施しやすい。
	コンテナ周辺が清潔に保たれる。	住民へのアンケートによる確認。		

D. 質疑

- Opening speech by MoE

  - During the time since the Project was started, Ministry of Environment has had the opportunity to assess the objectives that are anticipated to be fulfilled, establish contacts with the local unit structures which have a particular role, including not only those specified in the Project but others, in order to identify which areas can be the model area to serve as the standard of Albania and to identify any problems in Integrated Solid Waste Management.

  - One of the problems in Albania is the failure of the implementation of national waste strategy. The legal act which gives LGUs the opportunity to perform better in waste separation is enabling the establishment of infrastructure for waste separation in a practical way. We will also awaken an interest for local buyers towards recycling issues because it is clear that the waste holds an economic interest.

  - The collaboration with JICA has been a very positive collaboration which began in 2014. The Project is directly involved with three cities; former Bushat which is now inside Vau i Dejës municipality; Cërrik municipality; and Tirana municipality. At the same time, in addition to these three municipalities which are specified in the project, JICA has a broader view for various municipalities in Albania, and today we gathered here to observe the draft guidelines for 3R.

- In relation to the presentation by JET on the selection of 3R activities feasible in Albania, preparation of 3R Action Plan and 3R activities selected in model LGUs, and the presentation on the Software created by the Project for formulating a waste flow and explained its function:

  [Q.1] Regarding the figure of 373 g/capita/day for Tirana municipality, MOE said that for the residents of Tirana, the waste number g/capita/day varies from 0.7-1.1 kg because the value changes from month to month, and it may need to conduct surveillance throughout the year because in different months, people consume different amounts.

  - JET explained with a graphic the amount of waste g/capita/day for Tirana municipality, making comparisons between waste collected in landfill during the whole year, taken from 2009-2014 and the number of population in the respective years.

  - The representative from Vau i Dejes municipality also added that the results by JET were very accurate. As for Bushat (AU), before JET made calculations, he calculated everything by himself knowing the exact number of residents and his results and the results takenby JET were the same.

  [Q2] If their municipality would be able to do the local plan of waste management at the end of the project with the extracted data from JICA,

  - JET said that municipal waste flow consists of the amount of recyclables and the amount of deposited waste. All in total and for households the survey was carried out thoroughly while for businesses the waste composition was not observed in detail. However, the important thing is to ensure surveys have more accurate results of generated waste.

  [Q3] Calculations of the unit generation amount (g/capita/day) should be done based on the current living population as norms will emerge higher and the measurement on landfill is in

total and not separated. For this reason the coefficient is low.

- JET appreciated the thought, while explaning it was difficult to find the exact number of residents and the graphic was created by them from their data. He also requested suggestions to have a more accurate result.

- A representative from Kuçova City added that calculations should be based on the number of the population given by city officials because in Kuçova City, by civil registry, there are 30,244 people, by census of 2011 there are 16,800 people while Kuçova Municipality knows that there are 20,000-21,000 people and this is the number calculations should be done for.

- There was no waste separation at source in the Pilot Projects although there are legislative requirements for it.

  - Vau i Dejes representative answered that they are in the early stages of Pilot Project and in the coming months the waste separation at source would be done.

  - JET aslo responded by saying that the Project is aware of difficulties that a municipality faces upon taking proper steps for implementing the legislative requirements and that is why the Project is developing 3R Guideline through examining the feasibilities of some of the 3R Pilot Projects.

- A question was made about the economic efficiency of these Pilot Projects because a municipality had undertaken such projects but they failed because they couldn’t find a market for recyclables.

  - JET answered that they are still in the first two months of implementing the Project and they did not know the exact economic efficiency, but nonetheless they are collecting recyclables that have found a market to figure it out.

6.2.4　3R 導入セミナー兼パイロットプロジェクト結果報告セミナー（2017 年 3 月 9,10 日）

A.　議事次第

Time	Program	By
Day 1		
09:20 – 09:30	1. Opening	MoE
09:30 – 09:40	2. Introduction of each other	
09:40 – 09:55	3. Presentation for Result of Pilot Project in Vau i Dejes Municipality	Vau i Dejes Municipality
09:55 – 10:10	4. Presentation for Result of Pilot Project in Cerrik Municipality	Cerrik Municipality
10:10 – 10:20	Q &A (1)	Facilitated by JET
10:20 – 10:40	<< Coffee Break>>	
10:40 – 11:00	5. Presentation for Result of Pilot Project in Tirana Municipality	Tirana Municipality
11:00 – 11:30	6. Explanation of 3R Guideline	MoE
11:30 – 12:00	Q & A (2)	Facilitated by MOE, JET
12:00 – 13:00	<< Lunch >>	
13:00 – 14:00	7. Formulation of 3R Action Plan	JET
14:00 – 14:30	8. Acknowledgement of 3R Action Plans	JET
14:30 – 15:00	<< Coffee Break>>	
15:00 – 15:15	8. Presentation of 3R Action Plan · Ura Vajgurore	Ura Vajgurore Municipality
15:15 – 15:30	9. Presentation of 3R Action Plan · Konispol	Konispol Municipality
15:30 – 15:45	Q & A (3)	Facilitated by JET
15:45 – 16:00	10. Closing Remarks	Mr. Sokol Konomi, JICA
Day 2		
07:30 – 08:30	1. Traveling to Cerrik Municipality	
08:30 – 10:30	2. Visiting door to door collection (Including discussion)	Cerrik Municipality
10:30 – 11:30	3. Leave Cerrik to Tirana	

B.　参加者リスト

"The Seminar for introducing the finalized draft 3R Guideline cum the Seminar on reporting result of 3R Pilot Project"
09 & 10 March, 2017

No.	Name Surname	Organization	Day 1 Tirana International Hotel	Day 2 Cerrik Site Visit
1	Ledjana Karalliu	Minstry of Environment	✓	
2	Polikron Horeshka	Minstry of Environment	✓	
3	Jonida Hoxha	Minstry of Environment	✓	✓
4	Dorina Xhurxhi	Minstry of Environment	✓	
5	Isa Memia	Ministry of Transportation and Infrastructur	✓	✓
6	Ermira Dedej	Ministry of Urban Development	✓	
7	Sindi Lilo	Ministry of Urban Development	✓	
8	Endrit Opingari	Berat Municipality	✓	✓
9	Bektash Daja	Berat Municipality	✓	
10	Shpetim Rama	Bulqize Municipality	✓	
11	Qerim Baku	Cerrik Municipality	✓	•
12	Flutura Xhelili	Cerrik Municipality		•
13	Antike Torba	Diber Municipality	✓	
14	Mario Maci	Divjak Municipality	✓	✓
15	Suad Toshkallari	Divjak Municipality	✓	✓
16	Leonidha Kaci	Dropull Municipality	✓	✓
17	Rudina Trikshiqi	Durres Municipality	✓	
18	Vivjana Bocaj	Durres Municipality	✓	
19	Agim Lami	Elbasan Municipality	✓	✓
20	Kristjan Vocrri	Fushe Arrez Municipality	✓	
21	Klementin Syla	Fushe Arrez Municipality	✓	
22	Anastas Sotiri	Gjirokaster Municipality	✓	✓
23	Tefta Dobjani	Kavaje Municipality	✓	
24	Thoma Andrea	Kolonje Municipality	✓	✓
25	Teuta Cakolli	Konispol Municipality	✓	✓
26	Morena Sejko	Konispol Municipality	✓	✓
27	Roland Daja	Kruje Municipality	✓	✓
28	Artan Gjergji	Kruje Municipality	✓	✓
29	Adriatik Carka	Kucove Municipality	✓	
30	Ilirjan Llangozi	Kucove Municipality	✓	
31	Afrim Petku	Kukes Municipality	✓	✓
32	Fasli Germizi	Kukes Municipality	✓	
33	Kreshnik Dishnica	Lezhe Municipality	✓	
34	Eduart Alikja	Librazhd Municipality	✓	✓
35	Irena Sinani	Lushnje Municipality	✓	✓
36	Kledis Kukaj	Malesia e Madhe Municipality	✓	
37	Ermal Gjonaj	Maliq Municipality	✓	
38	Anesti Skenderaj	Mallakaster Minicipality	✓	✓
39	Elsid Zekaj	Mallakaster Minicipality	✓	✓
40	Arsela Caka	Mirdite Municipality	✓	✓
41	Blerina Troka	Patos Municipality	✓	✓
42	Anita Dhima	Peqin Municipality	✓	
43	Nevila Bica	Peqin Municipality	✓	
44	Engjell Nebiaj	Permet Municipality	✓	✓
45	Frederik Pikuci	Pogradec Municipality	✓	✓
46	Mehmet Kosuri	Prrenjas Municipality	✓	
47	Gordana Karaj	Prrenjas Municipality	✓	✓
48	Behar Ademi	Puke Municipality	✓	✓
49	Elda Joran	Pustec Municipality	✓	

No.	Name Surname	Organization	Day 1 Tirana International Hotel	Day 2 Cerrik Site Visit
50	Andoneta Jankulla	Pustec Municipality	✓	
51	Habibe Hajdini	Roskovec Municipality	✓	✓
52	Viktor Sakaj	Roskovec Municipality	✓	
53	Areti Papadhima	Sarande Municipality	✓	✓
54	Merushe Cali	Shijak Municipality	✓	✓
55	Erisa Zela	Shijak Municipality	✓	
56	Erkan Borici	Shkoder Municipality	✓	✓
57	Sonila Hyesenbelli	Skrapar Municipality	✓	✓
58	Gezim Shehu	Tepelene Municipality	✓	✓
59	Aleksander Toti	Tepelene Municipality	✓	✓
60	Blerta Dakli	Tirana Municipality	✓	
61	Valentina Jance	Ura Vajgurure Municipality	✓	✓
62	Shpresa Kola	Vau I Dejes Municipality	✓	✓
63	Zija Gerbeti	Vau I Dejes Municipality	✓	✓
64	Valbona Cobani	Vlore Municipality	✓	
65	Engjellushe Lalaj	Gjirokaster County	✓	
66	Ylli Aliko	Gjirokaster County	✓	✓
67	Sokol Berisha	Shkoder County	✓	
68	Linda Bala	Shkoder County	✓	✓
69	Vangjush Dishnica	Korca County	✓	✓
70	Anila Gjykshi	Elbasan County	✓	
71	Anila Hitaj	Vlora County	✓	✓
72	Leonard Gjanci	Korca County	✓	✓
73	Denada Gjogu	Berat County	✓	✓
74	Bedrie Cenaj	Kukes County	✓	✓
75	Odeta Jahaj	GIZ	✓	
76	Eno Dodbibaj	GIZ	✓	✓
77	Sokol Konomi	JICA	✓	
78	Mana Nagashima	JICA	✓	✓
79	Hiroshi Fujita	JET	✓	✓
80	Chiaki Nishi	JET	✓	✓
81	Shinnosuke ODA	JET	✓	✓
82	Koji Kusunoki	JET	✓	✓
83	Kreshnik Bajraktari	JET	✓	✓
84	Ela Muka	JET	✓	✓
85	Besjan Lako	JET	✓	✓
86	Dea Bala	JET	✓	
87	Edlira Tare	JET	✓	

C.　質疑応答　議事録

Minutes of Seminar

9 March 2017

The seminar was conducted as in agenda.

The contents of Q & A are as below.

Q & A (1)

[Q.1]: Which was the reason for the failure of collection of recyclables from the source?

- Representative of Cerrik Municipality answered that the housekeepers are not very careful.
- JET explained some other reasons for the failure. He mentioned that in the city area, collection service is with containers and predominate are apartment buildings. In rural area with the door to door collection, collection of recyclables was more successful.

Q & A (2)

JET explained the model of 3R Guideline. He also mentioned that all the municipalities will have this Guideline in end of April.

[Q.2] Questions on MOE's presentation on 3R Guideline:

1) MoE should arrange relationship between different projects in Albania and municipality? So the steps should be developed from start to finish?
2) There must be a legal basis for taking action against violators?
3) Should be opened recycling markets for everything?

Answer from MOE:

1) They should be developed simultaneously.
2) Legal basis exists and is the law for cleaning the waste but this is a law that should be revised. We are aware of this and will soon revise and put the restrictive measures for all AU's.
3) I would say that there isn't market only for metal recycling or plastic recycling. Today we have the recycling of used oils, used batteries, used tires, for each waste flow and I think that we have problems with public awareness, which should be done not only by MoE but also from each AU and municipality because after awareness we will not allow people to discharge waste in roads or rivers and pollute the environment.

[Q.3] We see that PP are conducted in areas that are not classified as large municipalities. What is considered and why this PP was not conducted in a large scale municipality?

- MOE: Project has started and implemented in three AU's, that were defined by their size. Vau i Dejes, Bushat Commune as a small AU, Cerrik as a medium AU and Tirana as a big AU. Then, it was decided that in 7 Counties, around 40 Municipalities, JET will get information about their problematics, on the challenges that these municipalities had and to assist the drafting of an action plan for them.
- The questioner: I was talking about the problematics. This project that is conducted in these areas is excellent but the problematics in a big municipality are much bigger and require closer attention. So, if we think that in these small cities, awareness for people about separation and 3R is simple, in a municipality that has more than 150.000 habitants, only the city because together with the villages they are around 250.000 habitants, problematics are more crowded and bigger. This project would serve too much if they would choose at least one big municipality as model.

- MOE: It's selected Tirana Municipality. I don't think that there is a bigger municipality than Tirana.
- The questioner: Even in Tirana Municipality, the project is done only in 5 schools in Lapraka.
- MOE: We had to choose some of them because we couldn't work with all the schools of Tirana.
- The questioner: My idea was about municipality problems in general, not specified only for schools.
- MOE: It is thought to work on these 5 schools and then this draft Guideline and all problematics that we faced, will be distributed also in other municipalities, but this is for the future, not for the moment.
- The questioner: My second question has to do with the rest of management. We have municipalities that have a landfill, they have started to build landfills throughout the country, but there are some municipalities that doesn't have one. I take the opportunity, if here is the representative of Fier Municipality, as they have prepared a PP for placing containers. I'd like to know the cost for this PP, because I liked that project and it can be implemented in all the cities, and with that type of separation and container construction, it helps waste recycling since in deposit site. Thank you.
- MOE: I don't know, is here any participant from Fier Municipality?

- JET: Explanation for choosing 3 pilot cities.

  It is out of our control when we start the project, so the target areas were already decided. When we started, pilot project site was Tirana, Lezha and Bushat Commune. When we start baseline survey, when we visited Lezha, Swiss Corporation had started some activities in Lezha. So we had some discussion with our self, prime minister office, MoE, to decide to change the target site for the middle size pilot project site. In the beginning, how the MoE and Japan Government select Tirana, Lezha and Bushat, maybe their intention was that big size have specific problem, and medium size and small size. That's why they select those three.

  Development support by Government Japan compared with other EU countries is different. For example, DLDP covers all Shkodra municipality or something but our style is not to cover all the municipality. We conduct a small scale activity and then based on this experience, spread to that municipality and sometimes to another municipality. This is the method of Japanese assistance.

[Q.4] Question regarding 3R Action Plan:

3R Action Plan that we are discussing and we have around three years is an obligation for local governments to compose and implement. Meanwhile, the law of the integrated waste management, national waste strategy, etc. have defined obligations for local governments, development of local plans of waste management. These local plans have all waste flows. In all the discussions we're doing, it is the management of urban waste. I don't know if this action plan will be part of the local plan of waste management, but we are not discussing other waste flows. Perhaps it is not part of this that we are discussing today but I, in the position that I am, I have problems because in Saranda landfill, there is a list of waste flows that can be deposited and have a problem with some other flows such as solid waste, construction waste, etc. Currently we don't have a landfill for such waste and we have difficulties because we don't have space in our area to make one. We ask help from MoE, MTI, Council, to determine these because MoE through environmental inspectorate have putted fines for local governments. This will happen again and again because we don't have any reflection opportunity. I want an opinion from MTI, MoE how we have to act and what to do.

- MOE: I understand your concern, it is a concern which we have discussed in several meetings within MoE and with MTI. We discussed the establishment of a landfill for construction waste, which to date does not exist within the territory of the Republic of Albania, but is seen by emergency building for municipal waste landfills as waste is disposed in disposal sites which are outside any norm. Pollute ground and surface waters, etc. therefore it remained until today without built, however, the concern is in our priorities.
- The questioner: It is concern of yours and ours, but when is penalized Saranda Municipality is not penalized for urban waste but for solid waste and will happen again if they come back again. It should be reflected, but for us is impossible. We had a waste disposal site underway rehabilitation and we continue to discharge there the waste that landfill doesn't accept.
- MOE: At least they can be used for filling potholes in roads in order to reduce as much as possible this amount of waste or other waste that can exported abroad by companies that manage these types of waste.
- MoTI: We have sent a DCM (Decision of Council of Ministers) for construction waste management where there are clearly defined and how will operate a municipality, where under this DCM has the right to approve the temporary disposal sites, meeting certain criteria laid down in DCM and permanent disposal sites. In any case, the local government units, during the granting permits for new construction or repairs, according to DCM is left that these may determine a fee prior and this fee can be used for the management of these temporary or permanent disposal sites. In DCM are clearly defined powers of the municipality and those who produce these types of waste.
- A participant: Regarding the problem we are discussing, a problem that I believe that all municipalities have, is at the moment you draft the budgets for this problem. Manual has been promised but so far we don't have manual and work is done in conditions of asking each other regarding rates. I know that it began a process for drafting a manual for cost and tariff, when can we have it?
- MOE: It is in process of discussion between ministries. It will be a draft decision and not a manual, which will be binding for all municipalities and there will be set the models of cost and tariff calculation.
- JET: Now you mentioned some cost and economical evaluation. For the 3R Activity it's difficult to evaluate how much is necessary because it depends on what facility you have, how many people you have and how much income do you have for the waste management. It's very much various. In the Guideline we have explained some activities and marked the cost. For the activity done in 3 pilot project municipalities you will find a very detailed cost for leaflet, printing cost, etc. This is written in our reports.

At the end of the seminar, a representative from JICA in Albania delivered the closing remarks as below:

> Hello ladies and gentlemen. I'm impressed regarding participation and interest you have shown to this activity today, so in the name of Japanese International Cooperation Agency (JICA), I want to say thank you that you spent your time and came here today, and for the interest you have shown for the entire process. Through this project, JICA aims to support Albania in its aspiration to join the EU. Among the many categories of Albania to become part of the EU is also integrated waste management. This thing, sooner or later will happen, so every local government unit shall be obliged to a certain moment to perform waste management in an integrated manner. This Guideline that was presented here today is not only an instrument that addresses the issues of recycling or 3R. In fact is a document that serves practically every local government unit to decide how to make its assessment of the situation on the state of solid waste, to achieve as quantitative and qualitative point of view

and concluded to establish themselves relying on the Guideline, what route they will take or what orientation will give to the issue of integrated waste management for their unit. So it is a very important instrument in the hands of local government to practically orient municipalities towards the stabilization of the waste management process in an integrated manner. I wish you to embrace this Guideline and convert it on a methodology that will be successful leads to integrated waste management. Thank you very much and I wish you success.

- Adjourned-

D. プレゼンテーション

D.1 Vau i Dejes PP

Challenges that is revealed by Pilot Project in Vau i Dejes Municipality (Bushat Administrative Unit)

9th Mar 2017

Target area	Entire Bushat Administrative Unit boundary
Basic Profile of the target	14 villages: about 4,600 households / about 300 waste containers

Basic Principles

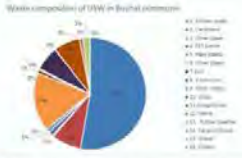
- To figure out effective methods for reduction of waste to be landfilled in the area through implementation of *sequential* pilot project
- To focus on agricultural and green waste, being the area with a lot of agricultural waste discharged.
  → A model for areas with similar waste composition.
- Sequence:
  1. To establish appropriate collection service of municipality and discharging manner of citizen including how to treat agricultural waste.
  2. To try out a way of waste reduction

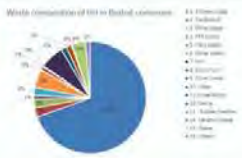
Schedule of PP

Year	2015				2016								
Month	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1. To secure an appropriate waste collection service by the municipality																
2. To establish an appropriate waste discharging system citizen would accept																
3. To establish an appropriate method for waste reduction																

Map of Target Area

Summary of Waste Amount and Composition Survey





Generation Rate of Household waste (g/capita/day)	
Kitchen Waste	230
Non-kitchen Waste	101
Total	331

Phase I

Implementation period	Sep. 2015 – Apr. 2016
Objectives	To secure an appropriate waste collection service by the municipality
Target area	Entire former Bushat commune boundary
Scope of Target	14 villages: about 4,600 households / about 300 waste containers
Issues	Wastes are discharged at discharging places beside waste containers, which makes it difficult to use compactor truck for waste collection. Consequently municipality's waste collection service tends to become irregular, while there is another cause of it that the municipal budget is on shortage after the territorial reform. Such unstable waste collection service causes a vicious circle in which people discharge waste in disorganized way repeatedly when they look at the untidy status of discharging places.

Vehicles owned by the municipality

It took 45 minutes to cover only one container. Of course, all containers are not in such situation, but containers with problematic situation are not a few.
The PP progress revealed that regular collection service with compactor truck is more effective than its small truck. However it is indispensable to change the discharging manner to achieve the best one.

It supposedly takes only about 5 minutes if all the waste is discharged into container.

Table of Result

Monthly Average	Compactor Truck Nov-May	Small Truck Nov-Mar
Trips	31.1	**9.4
Distance covered	1,030 km	-
Hours operated	116.6hours	-
Containers covered	1,068	-
Weight collected	127,711 kg	**25,677 kg
Average (kg/trip)	3,930kg	2,732 kg
Fuel consumption (Price, Lek)	90,759	*18,600
Fuel consumption (litter)	588	*121.1
Unit rate (Liter/ton)	4.6	*5.4
Unit rate (Lek/ton)	711	*836

*The data is from the clean-up operation record of 4-month period from December until March, and the fuel was used for a wheel loader as well as trucks during the said period.
**The data includes the clean-up operation for huge piles of accumulated green waste which was conducted by the municipality in November.

Phase 2

Implementation Period	Feb – Dec, 2016
Objectives	To establish the appropriate waste discharging system who citizen would follow
Target area	Barbulush, Rranxe, Bushat
Scope of Target	discharging point dedicated for agricultural waste (4 points) in the 3 target villages.
Issues	Citizen's improper discharging manner has lowered the collection efficiency. Particularly, the serious problems are that general waste is scattered on ground not discharging inside the container, and massive amount of agricultural waste is discharged besides the container.

In order to eliminate such situations, new discharge rule is needed.

In order to determine the apparent rule for people do not discharge in improper manner,

General Waste	Agricultural and Green waste
It should be properly discharged to the inside of containers.	It should be separately discharged in accordance with designated way. For instance, another container or certain place dedicated for only those waste

Leaflet was distributed to each household through one-by-one house visit.

Results

Table of Result

Month	Total weight transported (ton)	Number of Trips
April	11.3	5
May	5.8	4
June	7.4	4
July	9.7	7
August	9.5	8
September	9.9	8
October	9.1	8
November	15.5	8
December	7.7	7
Average	9.0	6.3

*From November 4 containers are added on Bushat village so average excluded those figures.

Phase 3

Implementation Period	Feb – Dec, 2016
Objectives	To establish an appropriate method for waste reduction
Target area	Barbulush, Rranxe
Scope of Target	Households for agricultural waste composting (finally 4 households selected) in the 2 target villages.
Issues	Massive amount of green waste discharged. So far the municipality should transport and landfill them. But it is ideal if people would not discharge this kind of waste for they dispose it by themselves, i.e. composting.

Massive amount of green waste discharged. So far the municipality should transport and landfill them. But it is ideal if people would not discharge this kind of waste for they dispose it by themselves, i.e. composting.

General composting theory

	On-site Composting	Off-site Composting
General	It is taken place at the generation source(mainly households) of targes waste that is usually in small-scale as many places. In principle it should be based on voluntary action by citizens instead of municipal administrative operation.	It is taken place at a dedicated site in large scale where only target waste are carried into the site.The municipal administration usually organizes the operation.
Advantage	• Few burden for the municipal finance on the operation • Effective to the reduction of transported amount as well as the landfilled amount	• Great effective to the reduction of landfilled amount since it is intensively treated
Disadvantage	• It is limited to disseminate to households so that the reduction for landfilled amount is less effective • It requires strives for the municipality to disseminate to it	• Ineffective to reduce the transported amount even it would take cost for the separated collection • The operation burdens the municipality • It should be secured the target waste to be separated

The PP focused on On-site composting because of the facts that Off-site composting operation burdens the municipal administration and there is still problem on waste transportation that needs to reduce the amount to be collected

According to the households visit survey

1. About 30 % of people do already composting in any way for the waste to be discharged although they still discharge some waste.
2. However, almost all households who do currently not composting are not willing to be involved the activity

*Here the word "waste" does not include the used bedding material of live stocks or maze stem to be used.Those kind of recycling rate is already so high.

People's current voluntary composting

On-site composting taken the observation through PP is extremely important practical application for the reduction of waste while massive amount of organic waste are discharged in Bushat. Yet number of people ,who agree or perform composting, are quite limited so far. Therefore further dissemination of such action is inevitable challenge for next period.
For the solution, i.e. it is expected that the municipality regulates the waste tax exemption for composting households or the central authority takes initiative to control the discharging of agricultural organic waste in nation-wide.

Conclusive Summary of PP(1)

Phase 1	Phase 2	Phase 3
The PP boosted generalization for waste collection service that compactor covers 300 small containers. Then the service continuously is conducted after the PP ends. Collection is usually done once a week for each container. However the PP revealed the problem on compactor collection system as massive amount of waste (mainly organic waste) discharged beside the container is observed.	Then the large containers dedicated for organic waste have been installed to solve the problem. The PP was also placed the role to observe waste quality and level of people's cooperation in order to assist the reduction of waste for next step. It resulted that the sites are maintained clean, and efficient waste collection. Although the phase 1 problem has been fixed, phase 2 revealed the next challenge and necessity to reduce the waste to be transported where the municipality has to transport organic waste discharged in tremendous amount.	Off-site composting is not able to reduce the waste amount to be transported. This is the reason why On-site composting fits to the municipality that holds the problem for waste transportation, as the On-site composting reduces the transported amount. Thus the PP focused on the On-site composting. Several methods of composting have been observed on good practices learned through PP survey. The PP tells lesson that the composting is definitely needed to be expanded for efficient waste transportation and promotion of 3R. The municipality and central authorities are urged to work on that together.

Conclusive Summary of PP(2)

Table. waste amount transported from Bushat AU

Waste Category	Transportation Category	2014 (Before PP)	2016 (Midst of PP)	2018 (Future example)
Supposed general waste	Municipal Compactor (PP1)	27.5 ton/month	127.7 ton/month	127.7 ton/month
	Inter-communal Compactor	42.0 ton/month	0.0 ton/month	0.0 ton/month
Supposed agricultural waste but 2014	Municipal Open Truck	33.3 ton/month	16.7 ton/month	0.0 ton/month
	Large Container Truck (PP2)	0	9.0 ton/month	25.7 ton/month
	Total	**102.8 ton/month**	**153.4 ton/month**	**153.4 ton/month**

* In 2014, it is supposed open truck are used to collect substantial general waste discharged on the ground.

PP1 served for unifying the transportation system and increasing transported amount.
PP2 served for demonstrating the feasibility of large container system

D.2　ツェリック PP


PP 1: Improvement of municipal waste discharge and collection in the rural area
1.3 Outline of PP
Collection system by concrete-made discharge place and horse car provided in rural area in former Cerrik (before February 2016)
Demolish of concrete-made discharge points (8 points) at the commencement of door-to-door collection. (February, 2016)
Before commencement of PP, awareness raising and explanation about PP was implemented by distributing leaflet. (March 2016)
PP 1: Improvement of municipal waste discharge and collection in the rural area
Discharge place and time (1): in front of the houses facing on the collection route, before the collection vehicle comes in principle.
PP 1: Improvement of municipal waste discharge and collection in the rural area
Discharge place and time (2): direct discharge to the collection vehicle when it comes.
PP 1: Improvement of municipal waste discharge and collection in the rural area
Collection system: door-to-door collection with bell system
PP 1: Improvement of municipal waste discharge and collection in the rural area
The situation of waste littering in the area
Improperly discharged waste has not been observed at demolished concrete-made discharge points (October 2016)
From August 2016, collection area has been expanded and at the same time a collection frequency has been changed to every other day. As the result, improper discharge has been increased at the place where containers were installed in the past. (November 2016)
PP 1: Improvement of municipal waste discharge and collection in the rural area
1.4 Monitoring result of PP
Result1: Accuracy of time to provide collection service
A collection area was expanded to the second-step area from 4th April 2016. The collection service was provided almost accurate time. From August, a collection area was expanded to third step and collection frequency was reduced further from 5 times to 3 times per week. Because of it, collection working time per collection day is longer than before and it became a little bit difficult to provide accurate timing service. However, after October, as 3 times collection service is fixed as a collection system, accurate timing collection service has been able to provide.
PP 1: Improvement of municipal waste discharge and collection in the rural area
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PP 1: Improvement of municipal waste discharge and collection in the rural area

Discharge place and time (2): direct discharge to the collection vehicle when it comes.

9

PP 1: Improvement of municipal waste discharge and collection in the rural area

Collection system: door-to-door collection with bell system

10

PP 1: Improvement of municipal waste discharge and collection in the rural area

The situation of waste littering in the area

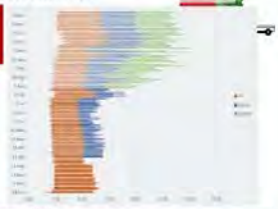
Improperly discharged waste has not been observed at demolished concrete-made discharge points. (October 2016)

From August 2016, collection area has been expanded and at the same time a collection frequency has been changed to every other day. As the result, improper discharge has been increased at the place where containers were installed in the past. (November 2016)

11

PP 1: Improvement of municipal waste discharge and collection in the rural area

1.4 Monitoring result of PP



□ Result1: Accuracy of time to provide collection service

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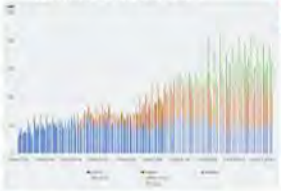
PP 1: Improvement of municipal waste discharge and collection in the rural area



□ Result2: Satisfactory of resident to collection service

A door-to-door collection system introduced in the rural area to improve discharge and collection service has revealed that it is an acceptable collection system in a rural area despite that the collection time and day are limited and the number of households cooperating with the system is increasing.

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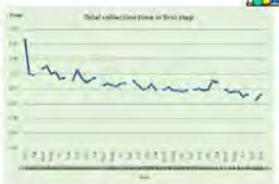
PP 1: Improvement of municipal waste discharge and collection in the rural area



□ Result3: Fluctuation of collection efficiency by revised collection frequency

In first and second steps, as the collection service was provided almost at the accurate time, a waste discharge manner was found improved : discharging only shortly before collection truck's coming, for example. Consequently the time required for waste collection could be shortened.

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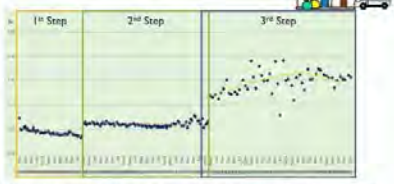
PP 1: Improvement of municipal waste discharge and collection in the rural area



□ Result3: Fluctuation of collection efficiency by revised collection frequency

From August, a collection area was expanded to the third-step area and the collection frequency was reduced further from 5 times to 3 times per week. Because of it, collection working time became longer than before and it became a little more difficult to provide the accurate timing service. However, after October, as collection performance of collectors has improved and the residents came to recognize the 3-times-a-week service acceptable, it has become possible to provide the accurate timing collection service.

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PP 1: Improvement of municipal waste discharge and collection in the rural area

1.5 Finding

- As a collection system in a rural area, it is verified that door-to-door collection system with sound system was effective and contributed to the area beautification. As a condition in some areas is similar to the one in PP area, the door-to-door collection system will be suitable to be expanded to such areas based on the experiences of the PP.
- However, improper discharge of waste has been observed at the locations where communal containers were previously installed and removed after commencement of PP along the main road in Ferme area. The situation has come to be observed many times since August when the collection frequency was reduced from 5 times a week to 3 times a week. Various measures were taken against such improper discharge, but the situation has not been improved. It is turned out to be difficult for some residents to make it a habit to store the generated waste for more than a day within their houses or even within their property. Furthermore, it is also necessary to make people feel hesitant about littering at the location by taking measures such as road side improvement, (planting flowers), and so on.

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PP 1: Improvement of municipal waste discharge and collection in the rural area

1.5 Finding

- There are many narrow and muddy roads in the rural area. A middle- or small-size vehicle is suitable for the collection service in such areas. If the door-to-door collection service stops due to a break-down of the collection vehicle, waste littering can be anticipated. Therefore, it is essential to conduct vehicle maintenance daily and regularly.
- It is necessary to consider to establish a collection system for non-municipal waste such as agricultural waste, construction waste and others with charge.

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PP 2: Separate collection of recyclables

2.1 Outline of Pilot Project

Step	Outline of PP	Target area
First step	• Discharge method: Bring out when collection truck coming with music. • Collection points: near the communal containers installed for waste collection near the crossroads and near an entrance to an apartment building from the paved road. • Bell collection system: Collection truck comes with music and announcement for recyclables collection and stops at the designated collection points to collect recyclables brought out by residents and shops.	• Entire Cerrik AU area (Neighborhood 1, 2, 3) • In the urban area, the targeted area for separate collection is densely-populated Block A consisting of 10 apartment buildings with 250 households living. • In rural area, entire Ferme and Kanber in Neighborhood 3 are continuously the collection areas for separate collection of recyclables.
Second step		

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PP 2: Separate collection of recyclables

2.2 Target area

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PP 2: Separate collection of recyclables

2.3 Outline of PP

A scene during collection of recyclables (June 2016)

In case general waste was discharged at a recyclables collection day, the waste was refused from collection and a notice was placed on it. (June 2016)

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PP 2: Separate collection of recyclables

The simultaneous collection of general waste and recyclable was commenced with wheel-containers for recyclables loaded on the collection truck. (August 2016)

Recyclable collection area in the urban area was reconsidered to target only Block A (August 2016)

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PP 2: Separate collection of recyclables

A situation of measuring collected recyclables in the storage warehouse (2 April 2016)

The recyclable stored after commencement PP were sold to a recycler from Elbasan (November 2016)

22

PP 2: Separate collection of recyclables

2.4 Monitoring result

□ **Number of household separating and discharging recyclables**
It is verified that the number of households which discharge the recyclables will be increased, compared to other collection methods, when the collection system of general waste is firstly converted to door-to-door collection and thereafter one of general collection days is altered to a recyclable collection day.

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PP 2: Separate collection of recyclables

□ **Collection amount of recyclables**
The collected amount of the recyclable was at the maximum in April and it remained a little afterward through November 2016. A total amount of the collected recyclable for the entire PP period is 263.5 kg, and the average amount is 1.09 kg/day for eight months.
Among the targeted recyclables, PET bottles and hard plastic accounted for more than 90% of the collected recyclables (242.1 kg).

□ **Gain after selling the recyclables**
Recyclables accumulated after commencing the separate collection PP was sold to a recycler from Elbasan on 24 November 2016. The unit selling cost of the recyclables was 15 leke/kg, and the gain from selling the total of 250-kg recyclables was 3,700 leke. The usage of gain has been decided based on the municipality's policy to be used as a fund to purchase newly installed containers in Ferme.

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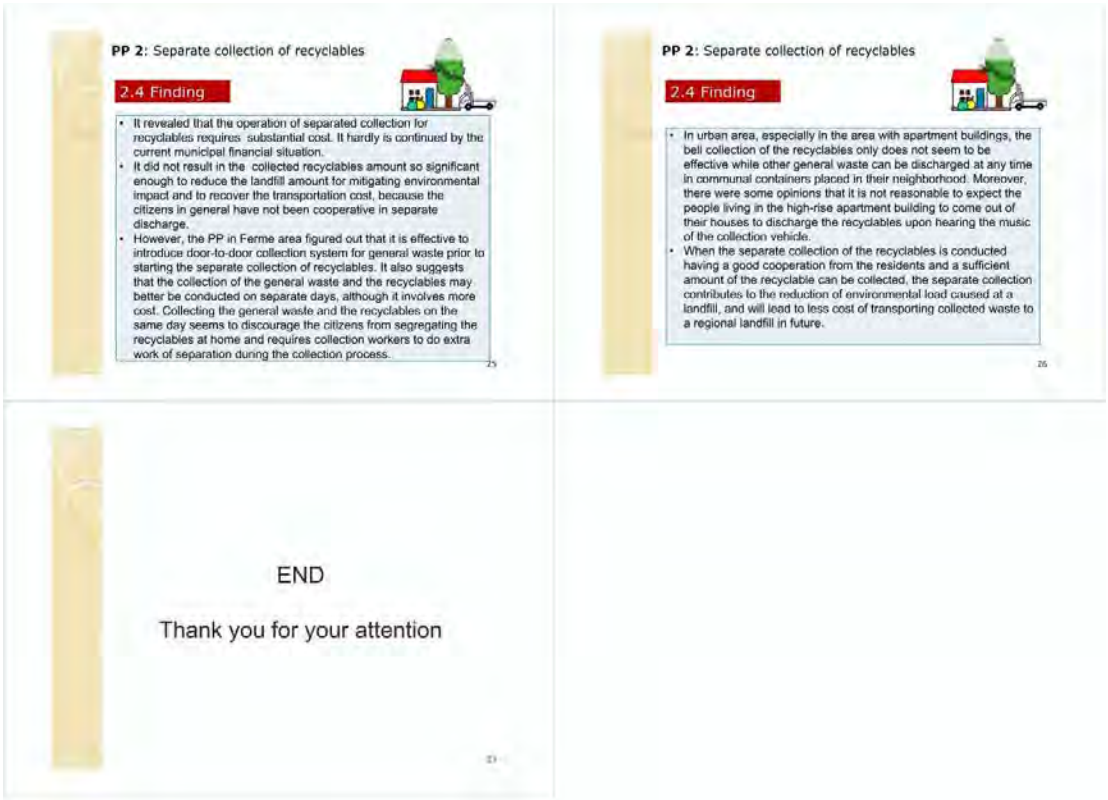

PP 2: Separate collection of recyclables
2.4 Finding
• It revealed that the operation of separated collection for recyclables requires substantial cost. It hardly is continued by the current municipal financial situation.
• It did not result in the collected recyclables amount so significant enough to reduce the landfill amount for mitigating environmental impact and to recover the transportation cost, because the citizens in general have not been cooperative in separate discharge.
• However, the PP in Ferme area figured out that it is effective to introduce door-to-door collection system for general waste prior to starting the separate collection of recyclables. It also suggests that the collection of the general waste and the recyclables may better be conducted on separate days, although it involves more cost. Collecting the general waste and the recyclables on the same day seems to discourage the citizens from segregating the recyclables at home and requires collection workers to do extra work of separation during the collection process.
PP 2: Separate collection of recyclables
2.4 Finding
• In urban area, especially in the area with apartment buildings, the bell collection of the recyclables only does not seem to be effective while other general waste can be discharged at any time in communal containers placed in their neighborhood. Moreover, there were some opinions that it is not reasonable to expect the people living in the high-rise apartment building to come out of their houses to discharge the recyclables upon hearing the music of the collection vehicle.
• When the separate collection of the recyclables is conducted having a good cooperation from the residents and a sufficient amount of the recyclable can be collected, the separate collection contributes to the reduction of environmental load caused at a landfill, and will lead to less cost of transporting collected waste to a regional landfill in future.
END
Thank you for your attention

D.3 Tirana PP


The Project for the Support of Waste Minimization and 3R Promotion in Republic of Albania
JICA
TIRANA MUNICIPALITY
TIRANA
09 March 2017
PROJECT AREA LAPRAKA
➢ 5 public schools (about 2000 students, their families, teachers).
➢ Communicating and ingraining the concept of 3R into schools.
➢ Collection of recyclables, for the ones that have established recycling market.
➢ Expanding the recycling activity to the surrounding communities.
➢ Presentation of proposal for 3R solutions applicable in Tirana city.
PHASE 1
Discharge and collection of the recyclables in schools.
OBJECTIVES
➢Establishing appropriate manner of separately discharging the recyclables;
➢Study the type of recyclable materials and establishing communication with students and surrounding communities;
RECYCLABLES MATERIALS
➢PET bottles, aluminum cans, and small drink bottles;
CURRENT SITUATION
➢Schools waste are discharged in area containers, all mixed;
➢Recyclers (WP) collect recyclables by picking up their desired recyclables, which results in waste scattering around the containers;
➢Recycling activities carried out so far in schools could not establish good collaboration with collectors (recyclers);
➢In Landfill goes a considerable amount of recyclables;

GOALS

- The recyclables generated in schools will be separately discharged and collected in collaboration with the recyclers active in the area;
- Pupils and students of the schools will experience and feel directly, the effect of separate discharge;
- Transmission of the students experience to their families;

PROCEDURES

- Discuss and decide the method and rules of separate discharge at each school;
- Discuss and decide the collection schedule and rules with the recyclers;
- Preparation of school containers;
- Start separate discharge/collection and monitoring by pupils and students, Municipality and Project members;
- Report the progress to the surrounding communities about the activities carried out by the pupils and students in schools;
- Discuss on possibility of scaling up the activities to other schools;

Explanation, approval, agreement about implementation of PP (MoT & JET)

NOVEMBER 2015 - FEBRUARY 2016

- Discussing the project with schools (in cooperation with the Department of Education of Tirana City);
- Approval of 5 public schools, and to exclude 2 private schools which had only limited number of students;

RECYCLABLE MATERIALS AND METHOD OF DISCHARGING

- PET bottles, small drink bottles, aluminum cans. (MoT & JET);
- 1 School and 1 High School conducted the recyclable waste amount survey. (MoT & JET);
- Set the size and quantity of collection sack and bins, and expected collection frequency. (JET);
- Ordered production of frame for collection sacks. (JET);

MARCH 2016

- Preparation of awareness material. (JET);
- Explanation to teachers of the target schools and request for explanation from them to their students. (MoT & JET);
- Order gunny sacks. (JET);
- Setting up a frame for collection sack and recycle bins and start of separate discharge of recyclables in 5 schools. (MoT & JET);

APRIL 2016

- A field staff was hired for daily monitoring and instruction for the 5 schools. (JET);
- A survey was conducted to check the composition of collected "recyclables" and another round of awareness activity. (MoT, JET & Schools);
- Environmental groups were formed in all schools. (JET & Schools);

IMPLEMENTATION OF THE PROJECT

28 Nentori School　　**Skënder Luarasi School**

MAY 2016

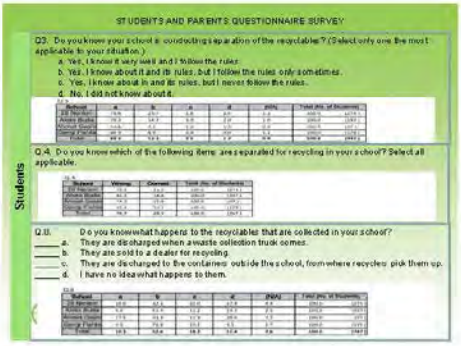
- Frist selling of the recyclables by schools. (JET & Schools);
- Questionnaire survey for students and parents. (JET & Schools);

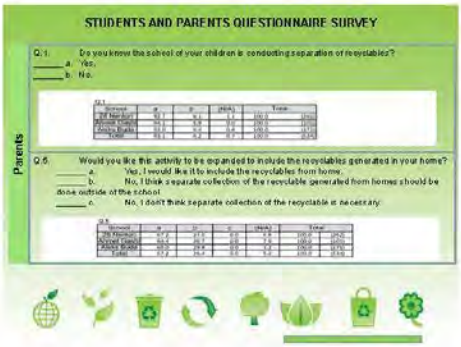
JUNE 2016

- Lapraka 5-school meeting to discuss about the progress and share their experience, with participation of Tirana Education Directorate. (MoT & JET);
- End of academic year and start of summer in educational institutions;
- The students of Aleks Buda High School conducted awareness activity to their community. (MoT, JET & School);

December 2016
"GJERGJ FISHTA" SCHOOL

- Student group is helping separation of recyclables when they are not correctly discharged;
- Are installed separate bins for the non-recyclables, to be placed together with the recycling bins;
- The school has established their own link with a nearby recycler and manages selling with the student group's, a process that was more sustainable;


STUDENTS AND PARENTS QUESTIONNAIRE SURVEY
Students

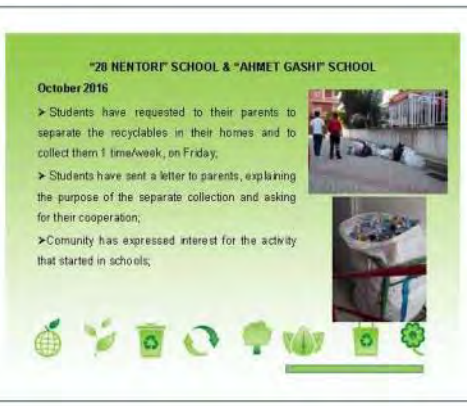

STUDENTS AND PARENTS QUESTIONNAIRE SURVEY
Parents


EXPECTED OUTCOMES
➢Reduction of recyclable materials in containers of MoT;
➢Students will understand and realize the separate waste collection;
➢The students' experience will be communicated to their families and the neighboring community of the schools;
EVALUATION INDICATORS
➢The amount of recyclables (Statistics on amounts collected in schools);
➢Degree of improvement in students awareness. (Students questionnaire);
➢Parents of the students will recognize the recycling activity being carried out in the schools. (Parents questionnaire);


LEVEL OF ACHIEVEMENT
➢Increasing amounts of recycled materials in some schools, but insufficiency of awareness of students in some other, followed with the discharge of recyclable materials in municipal containers;
➢Increasing numbers of students that are aware for the activity, that is conducted in their schools, his rules, but the effect of separate discharge is not known yet clearly recognized;
➢Recognition of parents with activity and similar activities are requested by their part;


PHASE 2
Expanding activity of separate discharging/collection of recyclables into the community surrounding schools.


"28 NENTORI" SCHOOL & "AHMET GASHI" SCHOOL
➢Has started collection for recyclables from households of students;
➢Collection frequency is 1 time/week;
➢Collected amount, together with the school recyclables is 2 sacks/month;


"28 NENTORI" SCHOOL & "AHMET GASHI" SCHOOL
October 2016
➢ Students have requested to their parents to separate the recyclables in their homes and to collect them 1 time/week, on Friday;
➢ Students have sent a letter to parents, explaining the purpose of the separate collection and asking for their cooperation;
➢Comunity has expressed interest for the activity that started in schools;

"28 NENTORI", "AHMET GASHI" & "ALEKS BUDA" SCHOOL

- They use one vehicle for recyclables selling;
- The cooperating collector has found it not worthy sending their large truck, for the quantity collected from these schools is small in their standard;
- They share the cost of transport (400 leke/trip);

"ALEKS BUDA" SCHOOL

- **June 2016**, the student group visited Coffee-Bars in the community to request for cooperation in separation of recyclables from general waste;
- Three student groups work with 3 Coffee-Bar;
- Collection frequency was 2-3 times/week, where every time they collect about 1kg of recyclables from each Coffee-Bar;
- Most of the bars in the neighborhood are already separating the recyclables and giving them or selling them to collectors;

"SKENDER LUARASI" SCHOOL

December 2016

- Presentation of the project by the students;
- Project progress, awareness activities conducted in their families, materials prepared by them, works with recycled materials, etc;
- At the end, certificates were distributed to the students participating in the activity;

EXPECTED OUTCOMES

- Community residents will understand the significance and rules of separate discharge of the recyclables;
- The amount of recyclables discharge in to the communal containers in Lapraka area will be reduced by a certain amount;
- The areas around the communal containers placed in Lapraka will be kept clean;

EVALUATION INDICATORS

- Separate discharge/collection will continue;
- The areas around the communal containers will be kept clean;

Final Questionnaire: Generally students were aware of the activity

Students

Q.1 Did you know your school was conducting separation of the recyclables last year? (Select only one the most applicable to your situation.)

a. Yes, I knew it very well and I follow the rules.
b. Yes, I knew about it and its rules, but I followed the rules only sometimes.
c. Yes, I knew about it and its rules, but I never followed the rules.
d. No, I did not know about it.

School	a	b	c	d	N/A	Total	(Number of Samples)
Ahmet Gashi	78%	11%	0%	11%	0%	100%	(102)
28 Nentori	83%	9%	1%	6%	1%	100%	(133)
Skender Luarasi	98%	2%	0%	0%	0%	100%	(61)
Aleks Buda	81%	7%	3%	8%	0%	100%	(95)

Q.2 Does your school still continue the same activity?

a. Yes, we are continuing.
b. No, we stopped it completely.
c. I don't know.

Forcing the recyclable to be brought to school/not voluntarism.

School	a	b	c	d	Total	(Number of Samples)
Ahmet Gashi	94%	0%	6%	0%	100%	(102)
28 Nentori	65%	1%	34%	1%	100%	(133)
Skender Luarasi	98%	0%	2%	0%	100%	(61)
Aleks Buda	89%	2%	9%	0%	100%	(95)

Final Questionnaire: They are more concerned about waste than money

Students

Q.11 What aspect of separate collection of the recyclables do you find the most meaningful to you?

a. It reduces amount of wastes in my school.
b. It helps cleaning our school environment.
c. It helps reducing consumption of natural resources in the world.
d. It earns us some money for a school project.
e. It helps reducing amount of waste discharged from my home.

School	a	b	c	d	e	(Number of Samples)
Ahmet Gashi	49%	59%	22%	33%	8%	(102)
28 Nentori	46%	55%	20%	18%	8%	(133)
Skender Luarasi	16%	98%	11%	11%	2%	(61)
Aleks Buda	66%	42%	16%	5%	0%	(91)

Q.12 Do you discuss with your family (any of your brother, sister, parents, grandparents, or any other family members who live with you) about the recyclable separation in your school?

a. Yes, I talk about it with my family very often.
b. Yes, I have talked about it once or twice.
c. No, I have not talked about it with my family.

School	a	b	c	(N/A)	Total	(Number of Samples)
Ahmet Gashi	68%	25%	7%	1%	100%	(102)
28 Nentori	63%	28%	8%	2%	100%	(133)
Skender Luarasi	98%	2%	0%	0%	0%	(61)
Aleks Buda	35%	32%	16%	16%	100%	(95)

Final Questionnaire: Lapraka is aware of and prepared for recycling.

Parents

Q.6 Tirana municipality has started the separate discharge of the recyclables in the central area of the city since last October by allocating two types of communal containers at each discharge points. Are you ready to cooperate in the same system if it is implemented in Lapraka area?

a. Yes, I am ready for immediate implementation.
b. I need more information about it before its starting here.
c. No, I don't want such system in our neighborhood.

School	a	b	c	Total	(Number of Samples)
Ahmet Gashi	88.37%	11.63%	0.00%	100.00%	(43)
28 Nentori	76.92%	20.00%	3.08%	100.00%	(65)
Skender Luarasi	88.71%	11.29%	0.00%	100.00%	(62)

Students

Q.4 Does your family separate the recyclables generated in your house?

a. Yes, we do separate the recyclables and discharge them separately.
b. No, we discharge everything all together.
c. I don't know how the waste is treated at my house.

School	a	b	c	N/A	Total	(Number of Samples)
Ahmet Gashi	68%	28%	2%	0%	100%	(102)
28 Nentori	72%	24%	4%	0%	100%	(133)
Skender Luarasi	84%	10%	5%	2%	100%	(61)
Aleks Buda	72%	24%	4%	0%	100%	(95)

Final Questionnaire: Many families even now are practicing recycling.

Parents

Q.2 Did you participate in the activity (of the separate collection carried out in school) ?

a. Yes. Our family sent our recyclables to the school through our child(ren).
b. No. Our family has given the recyclables to collectors who come to our neighborhood (or home).
c. No, we did not separate any recyclables in last semester.

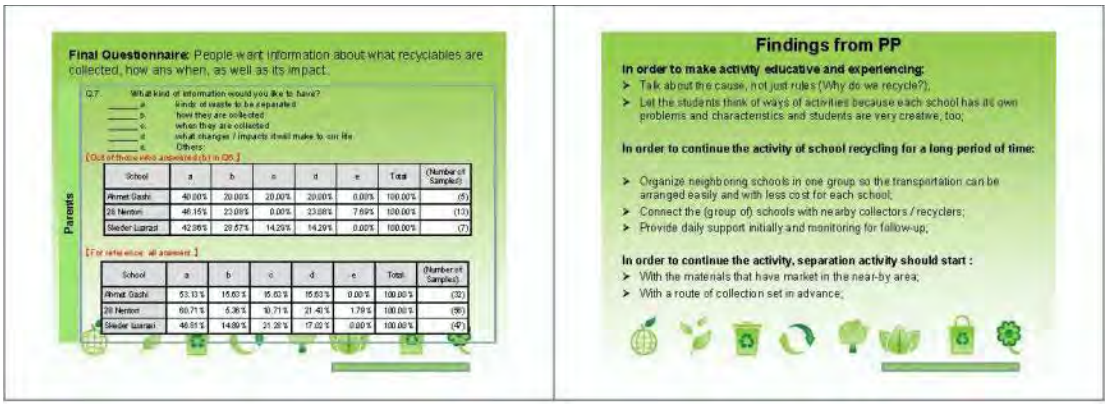
[Out of those who knows the recycling activity was going on in school in last semester.]

School	a	b	c	(N/A)	Total	(Number of Samples)
Ahmet Gashi	26.83%	69.96%	7.32%	4.88%	100.00%	(41)
28 Nentori	64.29%	25.00%	10.71%	0.00%	100.00%	(56)
Skender Luarasi	35.96%	54.24%	5.08%	1.69%	100.00%	(59)

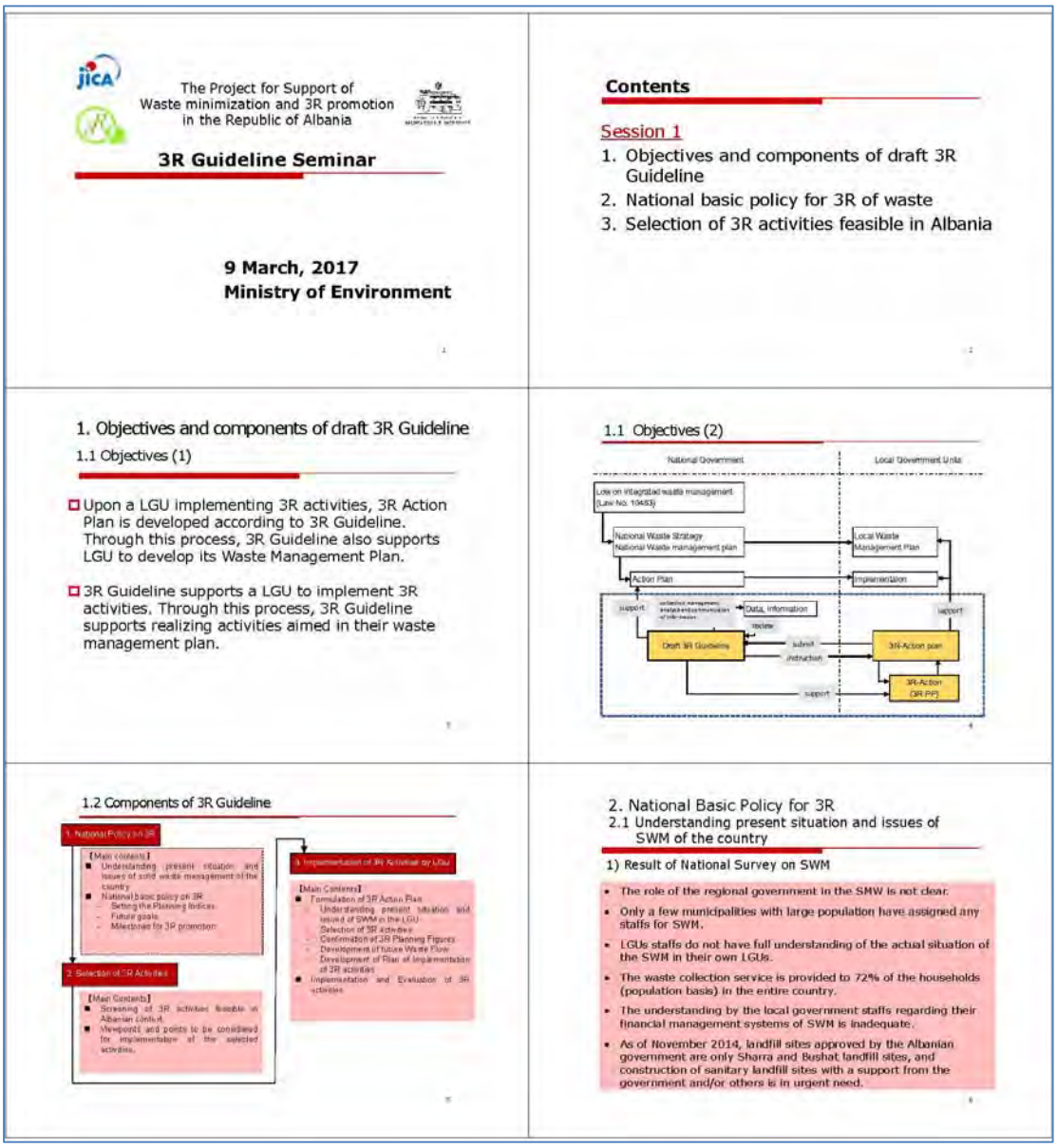
Q. 3 Is the school continuing the activity?

a. Yes, and our family cooperate by giving recyclables to the school.
b. Yes, but our family gives the recyclables to collectors.
c. Yes, but we do not separate the recyclables.
d. No, the activity has stopped.

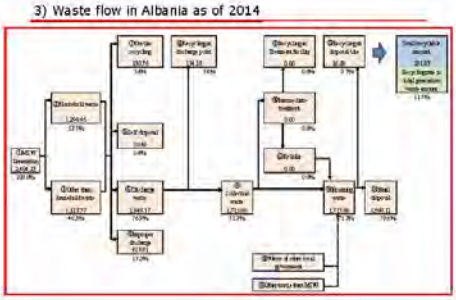
School	a	b	c	d	(N/A)	Total	(Number of Samples)
Ahmet Gashi	30.23%	60.47%	6.98%	2.33%	0.00%	100.00%	(43)
28 Nentori	59.73%	20.83%	12.76%	7.94%	0.00%	100.00%	(63)
Skender Luarasi	40.32%	53.23%	4.84%	1.61%	0.00%	100.00%	(62)



D.4 MOE presentation on 3R Guideline



3) Waste flow in Albania as of 2014



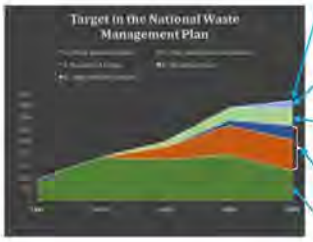
2.2 Targets in National Waste Management Plan

1) Planning period
Phase-1: 2010-2015
Phase-2: 2016-2020
Phase-3: 2021-2025

2) Main Targets of the National Waste Management Plan

The targets of each phase are established according to EU order.
(■ marks numerical targets.)

- ■ To stop growth in the municipal waste generation amount by 2020.
- ■ To achieve the recycling ratio of 25% of the generation amount in 1995 by 2015, 55% by 2020 and 75% by 2025 through recycling and composting and thermal recycling.
- ■ 15 % of municipal solid waste amount will be recovered by energy. (Target year is not mentioned.)
- ■ Disposal waste ratio of municipal solid waste amount will be reduced from the present 90% to 30%. (Target year is not mentioned.)
- □ Advices for waste reduction are to be provided towards a various business establishment.
- □ To establish market for the recyclables, which are reliable and feasible and, consequently, contributes to cost reduction of solid waste management.



- ■ Total Generation waste amount in 2025: 4,200t/day
- ■ Reduction ratio: 8%
- ■ Recycling ratio: 17%
- ■ Other treatment rate: 45%
- ■ Disposal ratio: 30%

Target year		Waste Reduction Ratio	Recycling ratio	Disposal ratio
Present	2015	0%	9.0%	70% (91%)
Short target	2020	0%	13.0%	50% (87%)
Middle target	2025	8%	17.0%	30% (75%)
Long target	2030	8%	17.0%	30% (75%)

Figures shown in them (.) are the disposal rates calculated under assumption that recovery of energy and other treatments would not be materialized as planned

3. Selection of 3R activities feasible in Albania
3.1 Procedure of selection

3.2 List of 3R activities

Category		Approach / technology
1.Reduce	Measures to induce waste minimization actions of the public and business sectors through introduction of policy and legislation	1.1 Extended Producer Responsibility (EPR)
		1.2 Education in schools (system uniformed in national level)
	Waste minimization measures taken by local government	1.3 Charging to waste service based on generation amount
		1.4 Public awareness-raising activities
		1.5 Experience learning program for waste minimization
		1.6 Education in schools (local level)
	Waste minimization through awareness raising and voluntarily actions by public and businesses	1.7 Daily habit not to buy products that tend to cause wastes and life not to cause waste
		1.8 Selection of environmentally-friendly product
		1.9 "My-bag" (reusable shopping bag) movement
		1.10 Simple Package
		1.11 Eco label system

Category		Approach / technology
2.Reuse	Waste minimization through awareness raising and voluntarily actions by public and businesses	2.1 Flea market
		2.2 Development of products that can be easily repaired, and fostering of the public sense to repair and reuse
		2.3 Dissemination of returnable containers
3.Recycle	3.1 On-site Recycle	3.1.1 Feed for livestock
		3.1.2 Compost
		3.1.3 Using garden waste as a firewood
	3.2 Off-site Recycle (Material Recycle)	3.2.1 Mixed waste collection and separation of recyclables from the collected waste
		3.2.2 Separated waste collection into 2 categories (organic and non-organic)
		3.2.3 Separated collection of recyclables
		3.2.4 Deposit system
		3.2.5 Utilization as fertilizer (compost)
		3.2.6 Utilization as animal feed
		3.2.7 Chipping
		3.2.8 Utilization for biogas collection
	3.3 Off-site Recycle Thermal Recycle	3.3.1 Carbonization
		3.3.2 Utilization for solid fuel production
		3.3.3 Combustion (heat recovery)

END

Thank you very much

D.5 Formulation of 3R Action Plan

The Project for Support of
Waste minimization and 3R promotion
in the Republic of Albania

3R Guideline Seminar

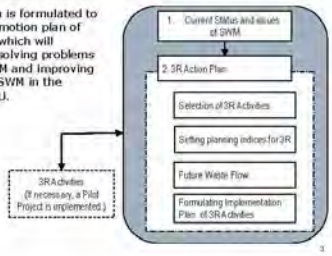
9 March, 2017
JICA Expert Team

Contents

Session 2
4. Formulation of 3R Action Plan

4. Formulation of 3R Action Plan
4.1. Steps for formulation of 3R Action Plan

3R Action Plan is formulated to develop a promotion plan of 3R activities, which will contribute to solving problems related to SWM and improving the status of SWM in the concerned LGU.



4.3. Methodology to grasp present situation & issues
1) Waste flow
a. Concept of waste flow and baseline survey

b. Baseline survey to obtain the data for each category

Survey	Target LGU	Method
National Survey on SWM	Former 373 LGUs in Albania	Questionnaire survey
Waste Amount and Composition Survey	Former Bushat, Cerrik and Lezhe (Existing data was used in former Tirana)	30 households per LGU, generation waste amount and composition were surveyed for 7days continuously.
Public Opinion Survey	Former Bushat, Lezhe, Tirana	Present situation of on-site recycling, self-disposal etc.
Recycling Survey at discharge stage	Large scale: former Tirana Middle scale: former Korce, Vlore, Shkoder, Lezhe Small scale: former Cerrik	Interview survey
Recycling Survey at disposal site	Sharre, Bushat and Cerrik disposal site	Interview survey and recycling date at site
Situation of waste collection/transportation	Bushat, Cerrik, Lezhe, Tirana	
Inhabitant population	Former 373 LGUs	INSTAT data in 2011, Interview survey

c. LGU Categorization for developing waste flow

Category	LGUs status	Scale of municipality	Disposal place of the waste collected
1	Municipality	Tirana	Landfill / approved disposal site
2	Municipality	≥20,000	Landfill / approved disposal site
3	Municipality	≥20,000	Others
4	Municipality	<20,000	Landfill / approved disposal site
5	Municipality	<20,000	Others
6	Commune		Landfill / approved disposal site
7	Commune		Others

d. Unit Waste Generation Data for each LGU category

(Unit: g/capita/day)

Unit Generation Data

LGU Category	Waste Generation Amount						On-site recycling	Sell disposal	Recycling at discharge point	Recycling at landfill disposal site (%)
		Household			Non-Household					
	Total	Organic waste	Recyclable	Total	Organic waste	Recyclable				
1	373	173	58	641	132	187	1	1	116	1% *
2	361	221	33	533	224	76	16	3	74	1% *
3	361	221	33	558	224	76	16	3	74	0%
4	335	169	21	371	92	9	30	3	2	1% *
5	335	169	21	371	92	9	30	3	2	0%
6	331	230	24	38	18	6	58	4	0	1% *
7	331	230	24	38	18	6	58	4	0	0%

* : 1% of the incoming waste to landfill/disposal site is collected and recycled by waste pickers

e. Simulation software to create waste flow

2) Present situation and issues regarding MSWM

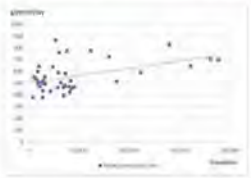
Present situation on Municipal SWM		Issues (Sample of indices)
1. Technical system	(1) Waste Flow (2) Storage/ Discharge (3) Collection/ haulage (4) Intermediate treatment (5) Final disposal (6) Public cleaning (7) Maintenance and repair of equipment	■ Waste management cost per waste collection amount (Annual cost for MSWM / yearly waste collection amount) (lek/ton)) = (financial situation *1) / (waste flow(T) x 365) ■ A ratio of annual cost for MSWM to annual budget of LGU = (financial situation *2) ■ Percentage of waste collection fee covered annual waste management cost ■ Collection ratio of waste collection fee
2. Institutional system	Regulation, Organization etc.	
3. Financial situation	(1) Income (2) Expenses	

3) Present situation and issues regarding MSWM

Through workshop, follow-up and individual visits, 28 municipalities formulated 3R action plan (current condition and problem identification) and actual situation of solid waste management has identified.
The actual situation is quite important information for the municipalities for their SWM. Furthermore, it is also important information to grasp the actual situation of national SWM as well as to set policy of future SWM.

3-1) Present situation and issues regarding MSWM

Relation unit generation waste amount per person and population

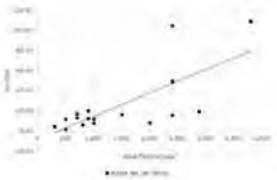


3-2) Present situation and issues regarding MSWM

Relation between waste collection ratio and population

3-3) Present situation and issues regarding MSWM

Relation between waste collection amount and waste fee per family



4.4 Selection of 3R Activities in LGU(1)

Selection method	Advantage	Disadvantage
Select 3R activities contributing to improvement of the current issues	●It is easy to identify a group of 3R activities which are linked to the respective issues and expected to improve them; ●When the current issues are clearly identified, it is efficient to select activities in this step.	●It is not easy to prioritize any activities to select one to start with; ●Since LGUs are not expected to have human resources sufficiently available, in terms of their number and experiences, a simpler step may be preferred.

Selection method	Advantage	Disadvantage
Select 3R activities based on easiness in implementation 【Evaluation items】 ■ Whether the activity would support reduction of waste generation and/or whether it would be effective for reducing the final disposal amount; ■ Whether it would be easy for discharger to understand and cooperate in implementation of the activity; ■ Whether the necessary cost of the activities could be minimized; ■ Whether the technology required for implementation of the activity could be applied by the concerned LGU; ■ Whether the implementation system could be formed in the concerned LGU.	●Although there are slight differences between LGUs, priorities of many LGUs, most of the LGUs may prioritize activities in the same order as shown in the table, which makes easier to select activities. ●This step makes it easy for a LGU without sufficient human resources (in number and experience-wise) to select activities with simple standards.	●Orders of priority may differ depending on choices of the evaluation standards. ●Selecting activities using only this step will not connect the activities with the identified SWM issues, thus may not help solving the issues.

4.4 Selection of 3R Activities in LGU(2)

Score	Recommended 3R Activities	
	Code	Contents of Activity
9	3.1 3.1.1 3.1.2 3.1.3 1.5	On-site recycle Feed for livestock Compost Using garden waste as a firewood Experience program for waste minimization
8	2.1 3.2.3	Flea market Separated collection of recyclables
7	1. 1.4 1.6 1. 1.7 1.8 1.9 1.10	Reduce(Raising awareness of dischargers) Public awareness raising activities Education in schools (LGU level) Reduce(Activities by dischargers) Daily habit to refuse products that generate unnecessary waste and living style not to generate waste Selective purchase of environmentally-friendly products "My Bag" movement Simple package
6	3.2.2	Separated waste collection into 2 categories (organic and non-organic)
5	3.2.7	Chipping
4	–	
3	–	
2	3.2.1 3.2.5	Mixed waste collection and separation of recyclables from the collected the waste Utilization as fertilizer(off-site compost)
1	3.2.6	Utilization as livestock feed

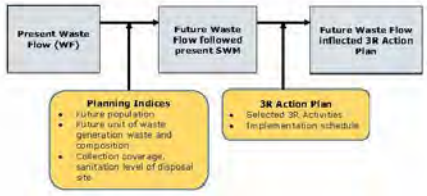
3R Action	Index (%)	On-site Recycle (%)	Recycling at Discharge stage (%)	Recycling at Intermediate facilities (%)	Recycling at final disposal site (%)	Year to start 3R Activity
1. Reduce						
1.4 Public awareness raising activities	1.0				1.0	2016
1.5 Experience program for waste minimization	1.0				1.0	2016
1.6 Education in schools (LGU level)	1.0				1.0	2016
1.7 Daily habit to refuse products that generate unnecessary waste, and living style not to generate waste	1.0				1.0	2020
1.8 Selective purchase of environmentally-friendly products	1.0				1.0	2020
1.9 "My Bag" movement	1.0				1.0	2020
1.10 Simple package	1.0				1.0	2020
2. Reuse						
2.1 Flea market				1.0	1.0	2016
3. Recycle						
3.1 On-site recycle						
3.1.1 Feed for livestock		In practice			*	
3.1.2 Compost		In practice			*	Construction
3.1.3 Using garden waste as firewood		In practice			*	Construction
3.2 Off-site Recycling						Construction
3.2.1 Mixed waste collection and separation of recyclables from the collected waste				1.0	1.0	
3.2.2 Separated waste collection into 2 categories (organic and non-organic)			3.0		3.0	
3.2.5 Separated collection of recyclables			5.0		5.0	2020
3.2.6 Utilization as livestock feed			5.0		10.0	
3.2.7 Chipping			3.0		3.0	
3.2.8 Flea market			5.0		15	
3.2.9 Incineration					60	

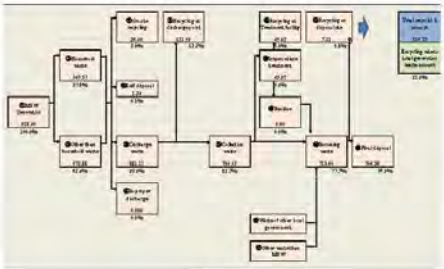
* Estimation based on actual implementation

Target rates for waste reduction, recycling, reduction of waste disposal through implementation 3R activities

Target year	Waste Reduction Rate (%)	Recycling Rate (%)					Waste Disposal amount reduction rate (%)
		On-site Recycling	Recycling at discharge sources	Recycling at intermediate facilities	Recycling at final disposal site	Recycling rate in total	
2015 Present	0.0%	1.8%	9.9%	0.0%	0.8%	12.5%	0.0%
2020 Short term	2.4%	3.7%	10.6%	0.5%	0.7%	15.6%	4.5%
2025 Mid term	6.4%	3.9%	12.5%	3.0%	0.8%	20.1%	12.9%
2030 Long term	8.0%	3.9%	13.2%	5.0%	0.8%	22.9%	17.0%

4.6 Simulation software to estimate future target and to create waste flow



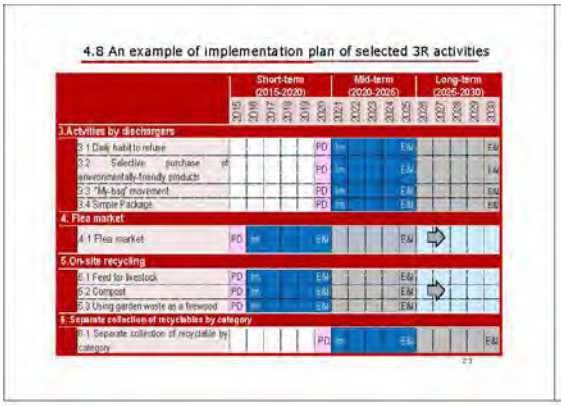


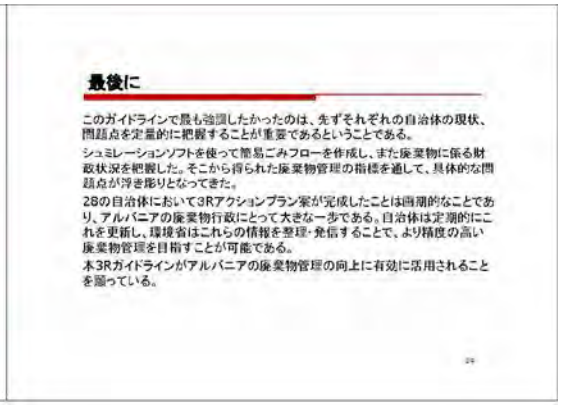
Waste flow in 2030

4.8 An example of implementation plan of selected 3R activities

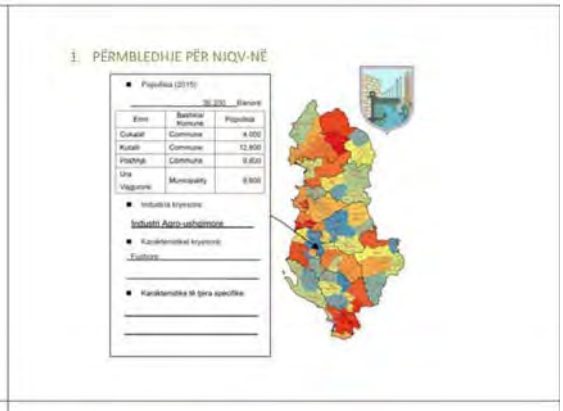
	Short-term (2016-2020)	Mid-term (2020-2026)	Long-term (2026-2030)
1. Planning indices			
1) Waste reduction rate	2.4 %	6.4%	8.0 %
2) Recycling rate	15.6 %	20.1 %	22.9 %
3) Rate of disposal waste reduction	4.5 %	12.9 %	17.0 %
2. Awareness raising for dischargers			
2.1 Public awareness	PD Im E&I	E&I	
2.2 Awareness activities in relation to 3R-experience program	PD Im	E&I	E&I
2.3 Education in school (LGU level)	PD Im E&I	E&I	

PD : Planning and Development
Im : Implementation
E&I : Evaluation and Improvement





D.6　3R Action Plan of Ura Vajgurore Municipality



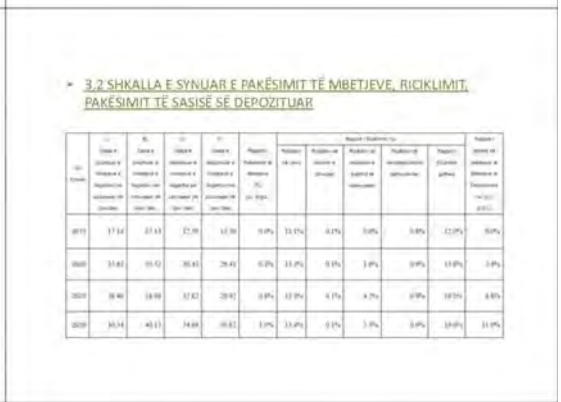

2.1 SISTEMI I MENAXHIMIT TË MBETJEVE (3)
(1) Zbërthimi i buxhetit për MMN
Artikujt
Njësia
2018
(2) Buxheti dhe shpenzimet gjithsej për NjQV-të dhe MMN

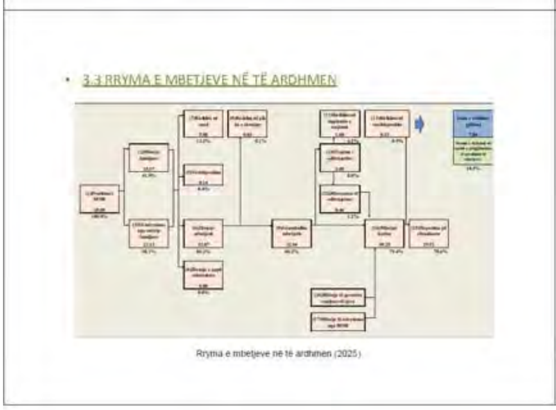

2.2 RRYMA E MBETJEVE TË TANISHME
Rryma e mbetjeve të tanishme (2015)

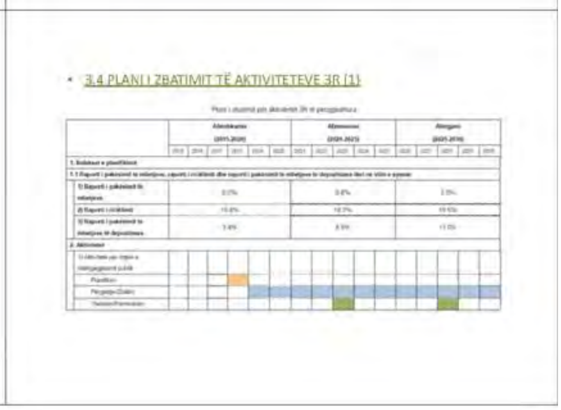

2.3 PROBLEMET (1)
Pikat kryesore
Pikat e identifikimit
Sasia dhe përbërja e mbetjeve
Financat

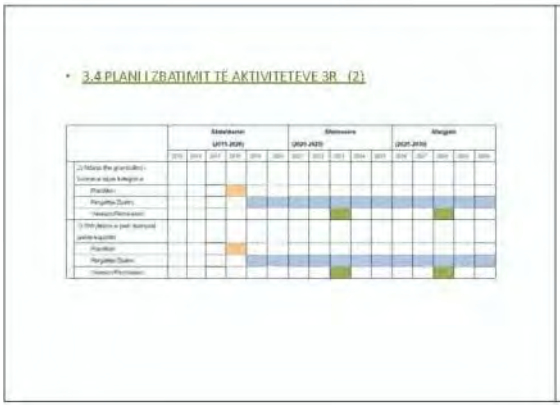

2.3 PROBLEMET (2)
Pikat kryesore
Pikat e identifikimit
Mbledhja dhe zbrazja
Problemet lidhur me mbledhje/zbrazje:
Kushte sanitare të vendit të zbrazjes
Grumbullimi dhe transportimi
Nuk ka probleme lidhur me grumbullimin/transportin
Depozitimi përfundimtar
Problemet lidhur me depozitimin përfundimtar:
Kushtet sanitare
Pastrimi publik
Problemet lidhur me pastrimin publik:
Mbulimi me shërbim
Menaxhimi i pajisjeve
Nuk ka probleme lidhur me menaxhimin e pajisjeve.
Organizimi dhe Administrimi
Problemet lidhur me organizimin/administrimin
Organizimi i MMNJ
Kapaciteti për planifikimin
Mbetjet e hedhura në mënyrë të paligjshme
Problemet lidhur me zbrazjet e paligjshme të mbetjeve.
Kontrolli i zbrazjeve të paligjshme


3. PLANI VEPRIMIT 3R
3.1 PËRZGJEDHJA E AKTIVITETIT 3R

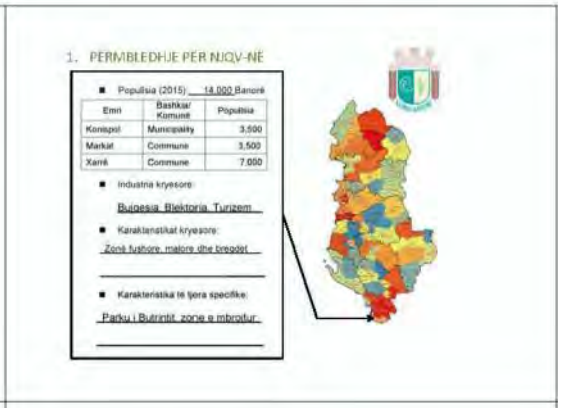

3.2 SHKALLA E SYNUAR E PAKËSIMIT TË MBETJEVE, RICIKLIMIT, PAKËSIMIT TË SASISË SË DEPOZITUAR

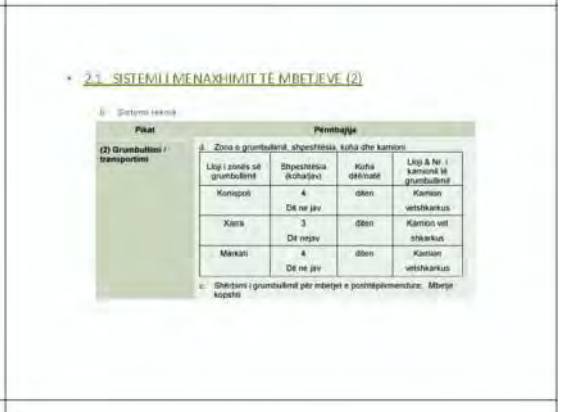

3.3 RRYMA E MBETJEVE NË TË ARDHMEN
Rryma e mbetjeve në të ardhmen (2025)


3.4 PLANI I ZBATIMIT TË AKTIVITETEVE 3R (1)

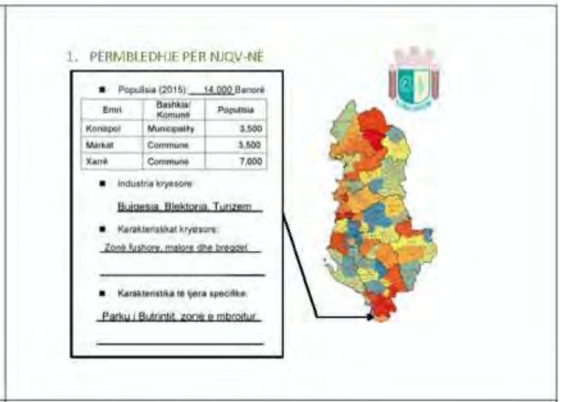


D.7 3R Action Plan of Konispol Municipality






DRAFT PLANI VEPRIMIT 3R
PËR BASHKINË KONISPOL
MARS 2017


1. PERMBLEDHJE PER NJQV-NE
Populsia (2015): 14,000 Banorë
Emri | Bashkia/ Komunë | Populsia
Konispol | Municipality | 3,500
Markat | Commune | 3,500
Xarrë | Commune | 7,000
Industria kryesore:
Bujqesia, Blektoria, Turizem
Karakteristikat kryesore:
Zonë fushore, malore dhe bregdet
Karakteristika të tjera specifike:
Parku i Butrintit, zonë e mbrojtur

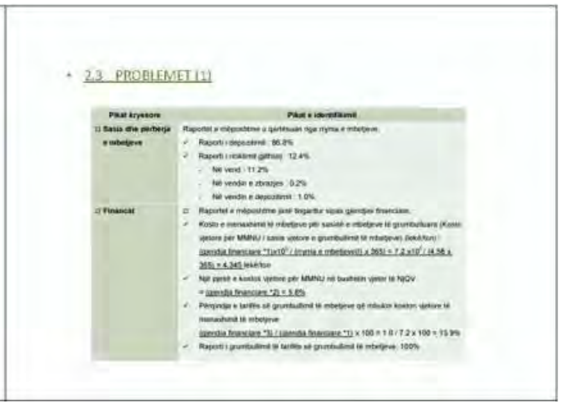

2. GJENDJA E TANISHME E MENAXHIMIT TE MBETJEVE TE NGURTA DHE PROBLEMET
2.1 SISTEMI I MENAXHIMIT TE MBETJEVE (1)
Organizimi
Pika | Permbajtja
Sektori përgjegjës për MMN
Emërtimi i sektorit: Zyra e sherbimeve
Numri i personelit për sektorin: 23
Sistemi teknik
Pikat | Përmbajtja
(1) Mbledhja / Zbrazja
Vendi i zbrazjes:
kontejner bashkiake
Të tjera(pika grumbullimi)
Sektori që ofron shërbimin e grumbullimit: Bashkia
(2) Grumbullimi / transportimi
Mbulimi me grumbullim: % (Raporti i popullsisë)
Konispol | Municipality | 80%
Markat | Commune | 60%
Xarrë | Commune | 60%
Ndarja e mbetjeve: Grumbullim i përzier

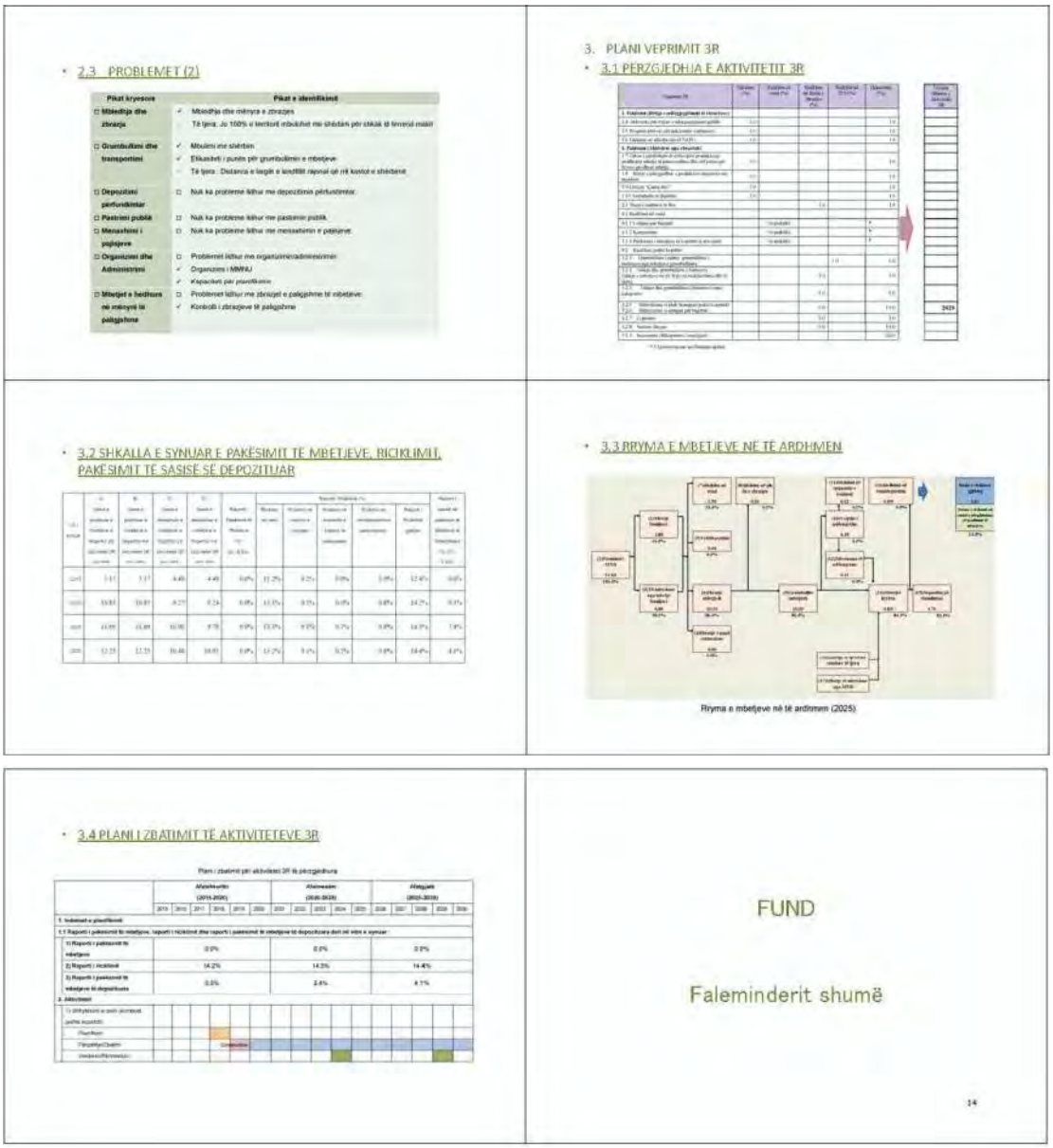

2.1 SISTEMI I MENAXHIMIT TE MBETJEVE (2)
Sistemi teknik
Pikat | Permbajtja
(2) Grumbullimi / transportimi
Zona e grumbullimit, shpeshtësia, koha dhe kamioni
Lloji i zonës së grumbullimit | Shpeshtësia (koha/jav) | Koha ditë/natë | Lloji & Nr. i kamionit të grumbullimit
Konispoli | 4 Dit ne jav | diten | Kamion vetshkarkus
Xarra | 3 Dit nejav | diten | Kamion vet shkarkus
Markati | 4 Dit ne jav | diten | Kamion vetshkarkus
Shërbimi i grumbullimit për mbetjet e poshtëpërmendura: Mbetje kopshti


2.1 SISTEMI I MENAXHIMIT TE MBETJEVE (3)
Pikat | Permbajtja
(3)Trajtimi i ndërmjetëm
Lloji i impiantit të trajtimit nuk trajtohen
(4)Depozitimi përfundimtar
Lloji [Landfill me impiante sanitare - Bajkaj]
Vendndodhja e landfillit/venddepozitimit: Jashtë NjQV-së
Sektori për menaxhimin dhe funksionimin e landfillit/venddepozitimit: qarku
Përmbajtja e menaxhimit: Kontrolli dhe menaxhimi i të dhënave të kamionit të ardhur / mbulimi me shtresë dheu
(5) Pastrimi publik
Lloji i shërbimit të pastrimit publik ofruar nga bashkia:
Fshirja e rrugëve / Krasitja e barit / Pastrimi i parkut
Të tjera(lyerje pemesh)
(6) Mirembajtja dhe riparimi i pajisjeve për Menaxhimin e Mbetjeve të Ngurta (MMN)
ofrohet nga landfilli
Organizmi dhe personeli për mirëmbajtjen dhe riparimin
sherbime nga te tret


2.1 SISTEMI I MENAXHIMIT TE MBETJEVE (4)
Gjendja financiare
(1) Zbërthimi i buxhetit për MMN
Artikujt | Njësia | 2015
1. Të ardhurat nga Tarifa MMN | mil. Lekë | 1.0
1.1 Tarifa për shërbimin e grumbullimit të mbetjeve *3 | mil. Lekë | 1.0
300 leke/year/ family, 1,000-5,000 leke/year/ business
1.2 Vendosja e tarifës për depozitimin e mbetjeve | mil. Lekë | 0.0
2. Buxheti nga llogaria e përgjithshme | mil. Lekë | 6.2
Buxheti gjithsej për MMN *1,*4 | mil. Lekë | 7.2
(2) Buxheti dhe shpenzimet gjithsej për NjQV-të dhe MMN
Artikujt | Njësia | 2015
1. Buxheti gjithsej në NjQV | mil. Lekë | 124.0
2. Shpenzimet gjithsej në NjQV | mil. Lekë | 124.0
3. Buxheti për MMN | mil. Lekë | 8.0
4. Shpenzimet për MMN | mil. Lekë | 7.2
Raporti i shpenzimeve të MMN te shpenzimet gjithsej (4/2) *2 | % | 5.8%


2.2 RRYMA E MBETJEVE TE TANISHME
Rryma e mbetjeve të tanishme (2015)


2.3 PROBLEMET (1)
Pikat kryesore | Pikat e identifikimit
Sasia dhe perberja e mbetjeve
Raportet e mëposhtme u qartësuan nga rryma e mbetjeve.
Raporti i depozitimit : 86.8%
Raporti i riciklimit gjithsej : 12.4%
Në vend : 11.2%
Në vendin e zbrazjes : 0.2%
Në vendin e depozitimit : 1.0%
Financat
Raportet e mëposhtme janë llogaritur sipas gjendjes financiare.
Kosto e menaxhimit të mbetjeve për sasinë e mbetjeve të grumbulluara
Një pjesë e kostos vjetore për MMNU në buxhetin vjetor të NjQV
Përqindja e tarifës së grumbullimit të mbetjeve që mbulon koston vjetore të menaxhimit të mbetjeve
Raporti i grumbullimit të tarifës së grumbullimit të mbetjeve: 100%



E.　セミナー写真

第１日目	
	
満席の参加者をまえに３R ガイドラインについて説明する環境省 Lejiana Karalliu 女史	廃棄物管理全般について熱心に質疑応答が交わされた。

	
9~12 月の各市への巡回指導を経て完成された 3R ｱｸｼｮﾝﾌﾟﾗﾝ(案)の完成確認版を各市に渡す藤田総括。	閉会の辞を述べる JICA ソコル氏。

F. 3R ガイドラインセミナーにおける Cerrik 市視察

2017 年 3 月 9，10 日に実施されたセミナーにおいて、セミナー2 日目に Cerrik 市での戸別ベル収集の様子を視察した。その様子がエルバサン州のローカルテレビ局 Best Channel により You Tube 上に（下記リンク）に掲載された。

https://www.youtube.com/watch?v=pNShb8nWYpY

なお、内容の英訳は以下のとおり。

“Cërrik Municipality is implementing the project for waste minimization and promotion of the 3R. This project is being implemented with the support of the Japanese government. On the second day of the seminar, representatives from 61 municipalities have made a visit to “Lagja Fermë” in Cërrik, which is one of the selected areas for the implementation of the pilot project where the waste collection service is door-to-door. Directorate of Public Services in the Municipality of Cërrik exposed to the audience in practice the waste collection, where cleaning workers knocking door to door for waste collection. According to the Director of Public Services, Mr. Qerim Baku, the seminar concept aims to implement in practice 3R activities.

Mr. Qerim BAKU: Today is the second day of the seminar for the promotion of 3R and we are following closely, in practice, the activity of door-to-door waste collection.

The expert said that the JICA pilot project in the Municipality of Cërrik started in February 2016. During the year the results of waste minimization project have been positive.

Mr. Koji Kusunoki: about a year ago we started project implemented in the Municipality of Cërrik in Ferma neighborhood. Residents are familiarized to door-to-door collection system and have entrusted the management of municipal solid waste to Cërrik Municipality service. We started the pilot project with 100 houses in Ferma neighborhood, while the municipality expanded the service in whole rural area of the territory.

After leaving Ferma neighborhood, the participants attended door-to-door collection in Shtermen village, new extended area. Cërrik municipality has a rich material base for keeping clean its territory. Available to citizens and residents of the villages are 300 new containers for waste disposal.”

第 2 日目	
	
ツェリック市 Ferme 地区でのベル収集による戸別収集の様子を見学するセミナー参加者	

6.2.5　地方自治体アクションプラン策定支援ワークショップ（全国巡業開催、主に 2016 年 10 月）

A.　ワークショップの目的

プロジェクトでは 3R ガイドラインに係る内容の説明ワークショップ、ウェストフロー作成ワークショップを開催したが、参加自治体は半数以下であった。自治体の不参加理由としては、「開催地のティラナ市は遠方であり、参加によって数日間業務をあけることになる。」、「日常業務におわれている」などであった。また、多数の参加者の中では自治体固有の問題点について相談できる時間を設けていなかったことが挙げられる。

JICA による中間レビューでの提言を受け、全国自治体による 3R アクションプラン作成について、自治体の負担を軽くすべく JET と MoE が地方に出向き、自治体に寄り添ったワークショップを開催することで、自治体の 3R アクションプラン作成の一助とすることを目的とする。また、更なる支援を環境省とともに実施することで、その経過を MoE、自治体と共有することで MoE の自治体への 3R 関連の支援能力向上につなげる。

B.　対象自治体の選定

アルバニアの自治体は 12 州、61 地方自治体で構成されているが、時間及びコストの制約から、①交通の便が比較的よい、②他ドナーが広く活動していないことを条件に、対象地域を 7 州、40 自治体に絞った。

※　着色部が対象自治体

図 31:対象自治体図

C.　活動計画

活動は以下の①ワークショップの開催、②フォローアップ、③個別指導の 3 段階で実施した。①ワークショップでは、3R アクションプランの概要等の説明、自治体現況の把握及び一部の演習を実施、②フォローアップでは自治体現況で不明確であった部分を、自治体に戻り明確にし、それでもアクションプランの作成がうまく出来ない自治体に対して③個別指導を行い、アクションプラン作成の促進を図るものである。

D.　活動実績

D.1　ワークショップの開催

ワークショップは 2016 年 9 月 19 日より 10 月 13 日まで 7 州で 9 回実施した。40 の自治体へワークショップへの参加を呼びかけ、32 自治体が参加した。ワークショップでは、

①「3R アクションプランとは何か」、②「自治体ごみフロー」についての説明を行い、それに続いて③各自治体の現況入力、④各自治体のごみフローの作成を演習方式で実施した。ここで自治体の現況について記載できなかった部分については、各自治体へ持ち帰り、記載したデータを JET に送付することとした。

参加自治体、ワークッショプ実施スケジュール・参加状況及びワークショップ実施内容を以下に示す。

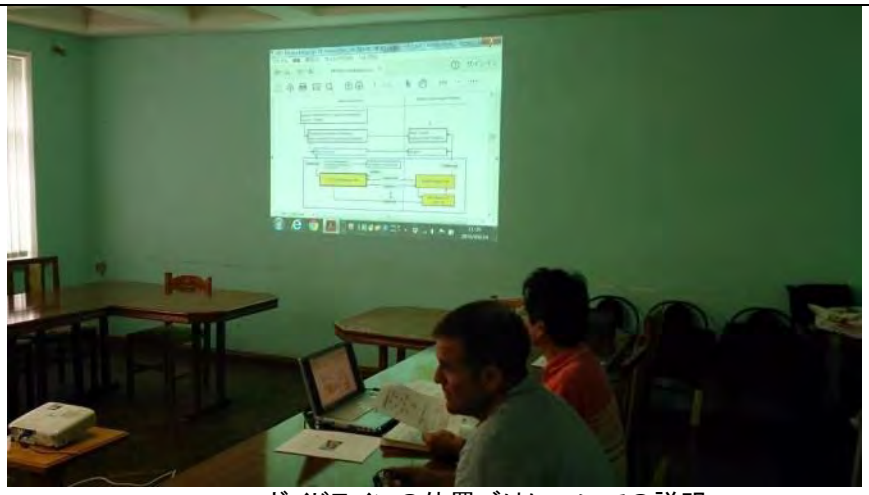
※　青色部が参加自治体

図 32:参加自治体図

表 49：ワークッショプスケジュール及び参加状況

Date			Activities	Time	Participated			Number attended	Population in 2015	Venue
1	18-Sep	Sun	Moving from Tirana to Gjirokaster	12:30 - 16:00						
2	19-Sep	Mon	Workshop 1-1	11:00 - 14:00	1	Gjirokastër	Yes	1	38,100	Gjirokastër County
					2	Dropull	Yes	1	4,700	
					3	Libohovë	Yes	2	5,400	
					4	Përmet	Yes	1	16,000	
					6	Memaliaj	-	N/A	14,100	
					7	Kelcyrë	-	N/A	8,100	
3	20-Sep	Tue	Moving from Gjirokaster to Tepelenë	9:30 - 10:00						
			Workshop 1-2	11:00 - 14:00	5	Tepelenë	Yes	2	9,400	Tepelenë Municipality
			Moving from Tepelenë to Sarande	14:00 - 15:30						
4	21-Sep	Wed	Workshop 2-1	11:00 - 14:00	8	Sarandë	Yes	2	26,900	Sarandë Municipality
					9	Konispol	Yes	2	11,000	
					10	Finiq	Yes	1	14,000	
					11	Delvinë	Yes	2	10,200	
						Delvinë Landfill		2		
5	22-Sep	Thu	Moving from Sarande to Vlore	10:00 - 16:30						
6	23-Sep	Fri	Workshop 2-2	11:00 - 14:00	12	Vlorë	Yes	2	139,400	Vlorë County
					13	Selenice	Yes	1	21,800	
					14	Himarë	-	N/A	10,500	
						Vlorë county		3		
			Moving to Vlore to Tirane	14:00 - 16:30						
7	24-Sep	Sat								
8	25-Sep	Sun								
9	26-Sep	Mon								
10	27-Sep	Tue								
11	28-Sep	Wed	Moving to Tirana to Fier	7:30 - 9:30						
			Workshop 3	10:30 - 13:30	15	Fier	-	N/A	160,600	Fier Municipality
					16	Mallakastër	Yes	2	36,000	
					17	Patos	Yes	1	30,600	
					18	Roskvec	Yes	2	28,900	
					19	Lushije	Yes	1	111,400	
					20	Divjakë	Yes	1	45,500	
						Fier county		2		
						MoE		1		
			Moving from Fier to Tirane	14:00 - 16:15						
12	29-Sep	Thu								
13	30-Sep	Fri	Moving from Tirane to Berat	7:30 - 10:00						
			Workshop 4	10:30 - 13:00	21	Berat	-	N/A	79,800	Berat Municipality
					22	Kuçovë	Yes	4	41,600	
					23	Ura Vajgurore	Yes	2	36,200	
					24	Poliçan	-	N/A	14,500	
					25	Skrapar	Yes	1	16,600	
						Berat County		3		
			Moving from Berat to Tirana	13:30 - 15:30						
14	1-Oct	Sat								
15	2-Oct	Sun								
16	3-Oct	Mon								
17	4-Oct	Tue								
18	5-Oct	Wed								
19	6-Oct	Thu								
20	7-Oct	Fri								
21	8-Oct	Sat								
22	9-Oct	Sun								
23	10-Oct	Mon								
24	11-Oct	Tue	Moving from Tirana to Elbasan	8:00 - 9:00						
			Workshop 5	10:30 - 13:30	34	Elbasan	Yes	2	188,300	Elbasan County
					35	Cërrik	Yes	1	36,500	
					36	Belsh	Yes	1	35,000	
					37	Gramsh	Yes	1	32,100	
					38	Prrenjas	-	N/A	24,000	
					39	Librazhd	Yes	1	42,500	
					40	Peqin	Yes	1	34,700	
						MoE		1		
			Moving to Elbasan to Tirane	14:00 - 15:00						
25	12-Oct	Wed	Moving to Tirana to Shkodër	7:00 - 9:30						
			Workshop 6	10:30 - 13:30	26	Shkodër	Yes	2	180,400	Shkodër County
					27	Pukë	-	N/A	14,700	
					28	Fushë Arrës	Yes	1	9,800	
					29	Vau i Dejës	Yes	1	40,500	
					30	Malesi e madhe	Yes	1	41,100	
						Shkodër County		2		
						MoE		1		
			Moving from Shkodër to Tirane	14:00 - 16:30						
26	13-Oct	Thu	Moving to Tirana to Lezhë	8:00 - 9:30						
			Workshop 7	10:30 - 12:30	31	Lezhë	Yes	1	87,300	Lezhë County
					32	Mirditë	Yes	2	29,400	
					33	Kurbin	Yes	2	61,600	
						Lezhë County		12		
						Mun. Env Ins		6		
			Moving from Lezhë to Tirana							
Total							32	81	1,462,900	

D.1.1 Gjirokaster 州-1

開催地	Gjirokaster 州政府庁舎
開催日	2016 年 9 月 19 日（月） 11:00～14:00
対象自治体	Gjirokaster、Dropull、Libohove、Permet、Tepelena、Memaliaj、Kelcyre 合計 7自治体
参加自治体	自治体: Gjirokaster 1 名、Dropull 1 名、Libohove 2 名、Permet 1 名
WS 講評	参加自治体の廃棄物担当者の内、事前に資料を準備していた担当者は一名のみ。内容に対する理解度は中程度と思われた。
開催模様	 3Rガイドラインの位置づけについての説明
開催模様	 PCを使用して演習形式の3R-AP作成状況

D.1.2 Gjirokaster 州-2

開催地	Teperena 市庁舎
開催日	2016 年 9 月 20 日（火） 11:00～14:00
対象自治体	Tepelena
参加自治体	自治体: Teperena 2 名
WS 講評	前日の WS に参加できなかったため、戸別訪問した。内容に対する理解度は中程度、かつ、前向きな取り組みが感じられた。

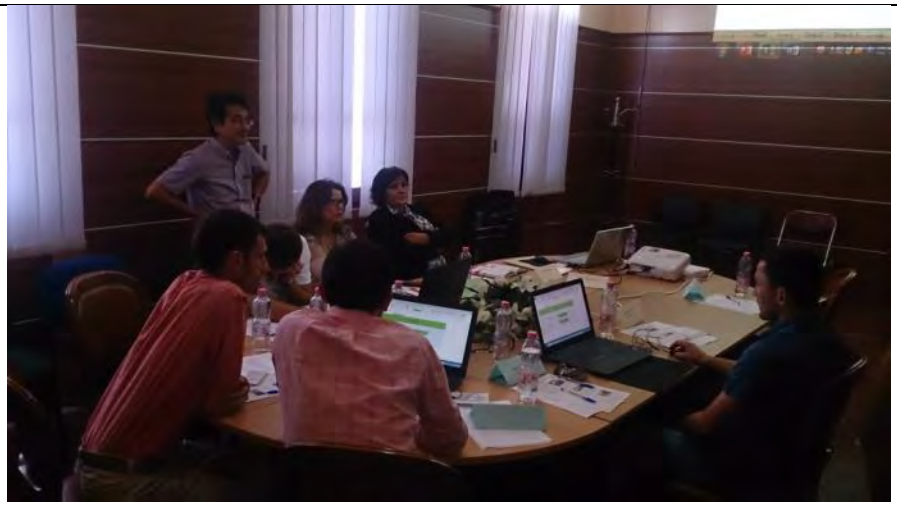
開催模様	 3R-APについての説明

D.1.3　Vlorë 州-1

開催地	Saranada 市庁舎
開催日	2016 年 9 月 21 日（水） 11:00～14:00
対象自治体	Saranda、Konispol、Finiq、Delvina 合計　4自治体
参加自治体	自治体:　Saranda　2 名、Konispol　2 名、Finiq　1 名、Delvina　2 名 その他:Saranada 地域の広域処分場運営団体　2 名
WS 講評	招待した4自治体全てが参加。参加自治体の廃棄物担当者の内、事前に資料を準備していた担当者は1名のみであったが、各自治体の人口の算出方法、ごみ排出原単位について熱心な質問があった。内容に対する理解度は中程度と思われた。
開催模様	 3R-APについての説明

開催模様	 演習状況（左の2名は処分場関係者）

D.1.4 Vlorë 州-2

開催地	Vlorë 州政府庁舎
開催日	2016 年 9 月 23 日（金） 11:00～14:00
対象自治体	Vlorë、Selenice、Himara 合計 3自治体
参加自治体	自治体: Vlorë 2 名、Selenice 1 名 その他:Vlorë 州政府関係者 3 名
WS 講評	Himara 市を除く 2 自治体が参加。参加自治体の廃棄物担当者より、各自治体の人口の算出方法、ごみ排出原単位について熱心な質問があった。内容に対する理解度は幾分低いと思われた。
開催模様	 演習状況

D.1.5 Fier 州

開催地	Fier 市庁舎
開催日	2016 年 9 月 28 日（水） 10:30～13:30
対象自治体	Fier、Mallakastër、Patos、Roskvec、Lushnje、Divjakë 合計 6自治体

参加自治体	自治体: Mallakastër 2 名、Patos 1 名、Roskvec 2 名、Lushnje 1 名、Divjakë 1 名 その他:Fier 州政府関係者 2 名、MoE 1 名
WS 講評	Fier 市を除く 5 自治体が参加。参加者の中には 3R ガイドライン説明会から継続して参加している担当者がいた。また、事前に資料を作成しているものや、多くの質問が寄せられるなど、3R-AP への関心度が高いと感じられた。
開催模様	 Fier州知事のOpening Speech
開催模様	 演習状況

D.1.6 Berat 州

開催地	Berat 市庁舎
開催日	2016 年 9 月 30 日（金） 10:30～13:00
対象自治体	Berat、Kuçovë、Ura Vajgurore、Poliçan、Skrapar 合計 5自治体
参加自治体	自治体:Kuçovë 4 名、Ura Vajgurore 2 名、Skrapar 1 名 その他:Berat 州政府関係者 3 名
WS 講評	5 自治体の内 3 自治体が参加。それぞれの参加者は自治体の状況をよく把握しており、WS 内容に対する理解度は非常に高いと感じられた。

開催模様	 3R-AP説明状況
開催模様	 演習状況

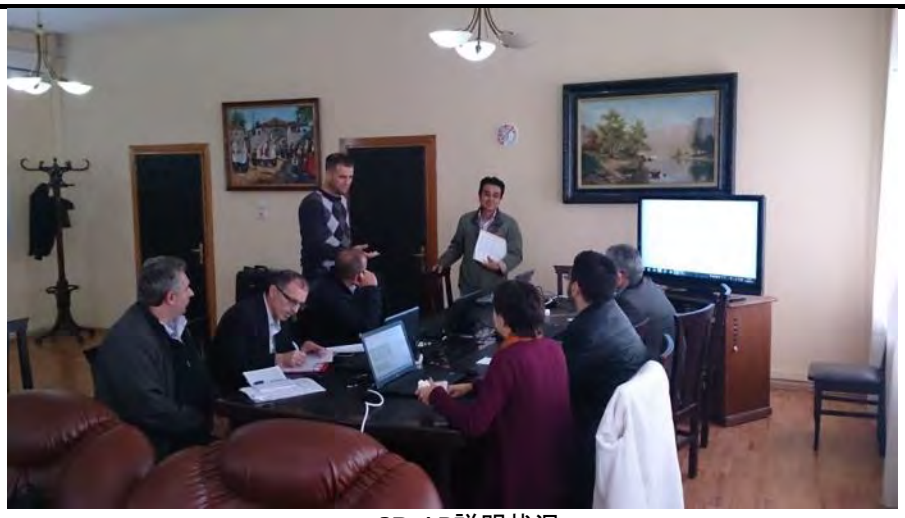
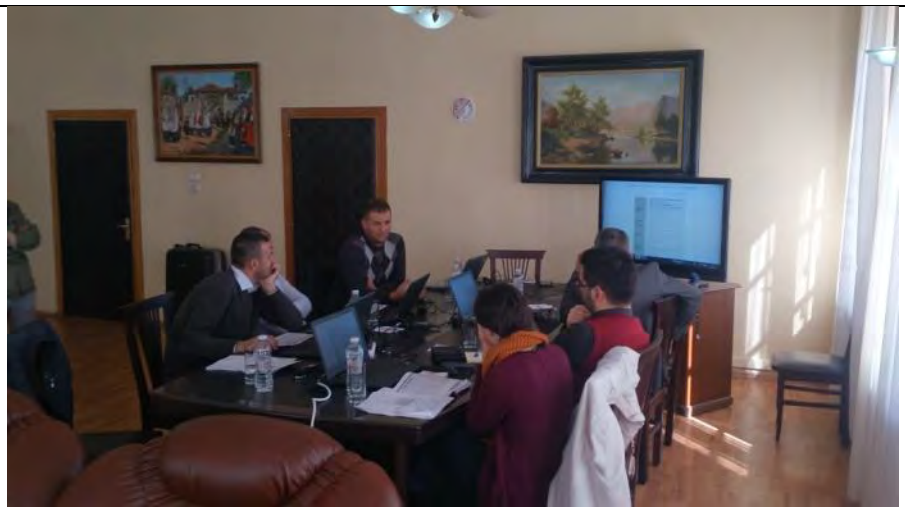
D.1.7　Elbasan 州

開催地	Elbasan 州政府庁舎
開催日	2016 年 10 月 11 日（火） 10:30～13:30
対象自治体	Elbasan、Cërrik、Belsh、Gramsh、Prrenjas、Librazhd、Peqin 合計　7 自治体
参加自治体	自治体：Elbasan　2 名、Cërrik　1 名、Belsh　1 名、Gramsh　1 名、Librazhd　1 名、Peqin　1 名 その他：MoE　1 名
WS 講評	7 自治体の内 6 自治体が参加。それぞれの参加者は自治体の状況をよく把握していた。また、Cërrik 市担当者によるパイロットプロジェクトの内容、状況説明に対して一同が非常に興味深く聞き入っていた。

開催模様	 3R-AP説明状況
開催模様	 演習状況

D.1.8　Shkodër 州

開催地	Shkodër 州政府庁舎
開催日	2016 年 10 月 12 日（水） 10:30～13:30
対象自治体	Shkodër、Pukë、Fushë Arrës、Vau i Dejës、Malesi e madhe 合計　5 自治体
参加自治体	自治体：Shkodër　2 名、Fushë Arrës　1 名、Vau i Dejës　1 名、Malesi e madhe　1 名 その他：Shkodër　州政府関係者　2 名、MoE　1 名
WS 講評	5 自治体の内 4 自治体が参加。それぞれの参加者は自治体の状況をよく把握していた。また、Vau i Dejës 市担当者によるパイロットプロジェクトの内容、状況説明に対して一同が非常に興味深く聞き入っていた。

開催模様	 3R-AP説明状況
開催模様	 演習状況

D.1.9　Lezhë 州

開催地	Lezhë 州政府庁舎
開催日	2016 年 10 月 13 日（木） 10:30～12:30
対象自治体	Lezhë、Mirditë、Kurbin 合計　3 自治体
参加自治体	自治体：Lezhë　1 名、Mirditë　2 名、Kurbin　2 名 その他：Lezhë 州政府関係者　12 名、環境指導員　6 名
WS 講評	3 自治体全てが参加。Kurbin 市以外は廃棄物管理担当者ではなく環境指導員が参加しており、ワークショップ内容の理解度は低いと考える。

開催模様	 演習状況
開催模様	 3R-AP説明状況

D.1.10　ワークショップ総評（日本語のみに記載）

a　　環境省の関与

JET は 2014 年に全国廃棄物管理状況調査を実施し、各自治体の廃棄物担当者の名簿を保有していたが、2015 年 6 月に実施された自治体の統合及び地方総選挙により、自治体担当者が大きく変わり、担当者を探す術がない状態であった。このような状況を受け、環境省に相談したところ環境省より、環境省が各州政府へ開催趣旨、招待する自治体リストを送付することとり、環境省より各州政府へ案内状が送付された。また、ティラナ市近傍で開催したワークショップ（Lezhë、Elbasan、Shkodër 州）へ担当者が参加するなど積極的に関与した。

b　　州政府の関与

プロジェクト開始から現在まで州政府が主体的に関わった実績が無かったため、「州政府が適切に対処するか」に疑問を残したが、無事に 7 州でのワークショップが開催された。ワークショップに参加した州政府関係者に話しを聞いたところ、環境関連の部署

の担当者ではあるものの、廃棄物や大気などの専門性を持っているものは殆ど居らず、ワークショップの内容いついての理解度は低いと感じられた。しかしながら、中央政府と自治体を結ぶパイプ役を十分に果たすもので、今後のガイドラインの普及などに不可欠な役割であると考える。

c　自治体職員の反応

c.1　ワークショップへの参加

ティラナ市で開催するセミナー、ワークショップに比べ自治体担当者の出席率は非常に高かった。理由としては、①自治体近傍での開催であり、日帰りで参加可能、②移動費がティラナ市往復に比して安価、③日常業務を空ける時間が短く、上長の了承が得易いなどが挙げられる。プロジェクトとしては可能な限り、遠隔地でのセミナー、ワークショップの開催を検討していきたい。

c.2　参加者の発言

過去に開催したワークショップ及びセミナーに比して、参加者の発言（質疑）が多かった。理由としては、多くの参加者の前では「恥ずかしい」、「他の参加者から批判されるのでは」などの思いから、発言を控えていたと考える。今回のような少人数かつ同じ地域で業務に従事している担当者の間では、同様の問題を抱えているものも多く、共感するところが多かったため、発言も多かったと考えられ、今後、教訓としたい。

c.3　自治体担当者の能力

参加者の廃棄物管理に対する知識、現状把握の状況は高低様々であったが、強いていえば大規模都市の担当者は小規模都市の担当者より知識、現状把握度は高い傾向があった。これは大規模都市では担当者の分業が進められており、廃棄物管理のみに専従できるのに対して小規模都市では環境に係る業務は元より、インフラなども兼業しており致し方ないと考えられる。自治体担当者の演習状況を見て共通していたのは、担当業務の財務に関して全く把握していないことが判った。具体的には、ごみ収集及び公共清掃に係る世帯ごと料金は把握しているものの、徴収額及び徴収率の情報を担当者が把握していない。また、ごみ収集及び処分費用の支出額も同様に把握されていない。これは、廃棄物管理部門に限ったものではなく、自治体の歳入・歳出は総額でのみ管理しており、個別の収支に対する管理がされていないことに起因する。事業の継続には収支の把握は必須条件であり、これは事業の継続性に大きく影響するものである。したがって自治体の歳入・歳出管理を事業別に行うことを強く推奨する。

D.2　フォローアップ

2016 年 10 月 21 日より 2016 年 11 月 11 日までワークショップのフォローアップを実施した。フォローアップの内容は JET より電話で自治体担当者へ 3R-AP の作成進捗状況を確認し、また、ワークショップに参加しなかった自治体に対して、指導を希望するかの質問を行い、希望する自治体に対しては、追加の説明を自治体に出向いて実施した。（Fier

市）ここで、3R-AP に示す自治体の現況まで入力が完了したものについては、JET にメールで送付するように依頼した。

個別指導が必要な自治体の選定を行うために、ワークッショプ開催時の 3R アクションプラン策定内容及び各自治体によってアップデートされた内容を検証し、進捗状況を以下の 4 つのパートごとに 5 段階（5: 80%以上, 4: 79-60%, 3: 59-40%, 2: 39-20%, 1: 10%以下）で評価し、どのパートを重点的に支援すべきかを把握した。

- 廃棄物処理の現状
- ごみフローの現状
- 廃棄物管理に関わる財政状況
- 廃棄物管理に関わる問題点・留意点

各自治体の 3R アクションプラン策定進捗状況評価結果を下表に示す。

総合評価 5,4 の自治他が 6、評価 3 の自治体が 13、評価 1,2 の自治体が 14 であった。進捗状況はあまり捗々しくなく、特に財政に関わるデータに関しては把握できておらず、個別指導が必要な自治体が多い。

表 50:3R 個別訪問前アクションプラン策定状況評価結果

自治体名		進捗評価					備考
		総合評価	現状把握	ごみフロー	財政状況	問題・留意点	
1	Gjirokastër	2.0	1.0	5.0	1.0	1.0	
2	Dropull	3.0	4.0	5.0	1.0	1.0	
3	Libohovë	3.0	2.0	5.0	1.0	5.0	
4	Përmet	5.0	5.0	5.0	4.0	5.0	AP 既提出
5	Tepelenë	4.0	5.0	5.0	1.0	5.0	AP 既提出
6	Memaliaj	0.0					WS 不参加
7	Kelcyrë	0.0					WS 不参加
8	Sarandë	4.0	5.0	5.0	1.0	5.0	
9	Konispol	3.0	4.0	5.0	3.0	1.0	AP 既提出
10	Finiq	1.0	1.0	1.0	1.0	1.0	
11	Delvinë	3.0	3.0	5.0	1.0	1.0	
12	Vlorë	3.0	1.0	5.0	1.0	5.0	
13	Selenice	3.0	1.0	5.0	1.0	5.0	
14	Himarë	0.0					WS 不参加
15	Fier	1.0	1.0	1.0	1.0	1.0	
16	Mallakastër	3.0	5.0	5.0	2.0	1.0	AP 既提出
17	Patos	3.0	2.0	5.0	1.0	4.0	
18	Roskvec	2.0	3.0	1.0	1.0	1.0	AP 既提出
19	Lushnje	3.0	2.0	5.0	1.0	4.0	
20	Divjakë	2.0	2.0	5.0	1.0	1.0	

自治体名		進捗評価					備考
		総合評価	現状把握	ごみフロー	財政状況	問題・留意点	
21	Berat	0.0					WS 不参加
22	Kuçovë	5.0	5.0	5.0	3.0	5.0	AP 既提出
23	Ura Vajgurore	3.0	2.0	5.0	1.0	3.0	
24	Poliçan	0.0					WS 不参加
25	Skrapar	3.0	3.0	5.0	2.0	1.0	
26	Shkodër	2.0	1.0	5.0	1.0	1.0	
27	Pukë	0.0					WS 不参加
28	Fushë Arrës	2.0	1.0	5.0	1.0	1.0	
29	Vau i Dejës	4.0	4.0	5.0	1.0	5.0	AP 既提出
30	Malesi e madhe	2.0	1.0	5.0	1.0	1.0	
31	Lezhë	3.0	3.0	5.0	1.0	1.0	
32	Mirditë	2.0	1.0	5.0	1.0	1.0	
33	Kurbin	2.0	1.0	5.0	1.0	1.0	
34	Elbasan	2.0	2.0	5.0	1.0	1.0	
35	Cërrik	4.0	5.0	5.0	1.0	5.0	AP 既提出
36	Belsh	1.0	2.0	1.0	1.0	1.0	AP 既提出
37	Gramsh	2.0	1.0	5.0	1.0	1.0	
38	Prrenjas	0.0					WS 不参加
39	Librazhd	3.0	2.0	5.0	1.0	5.0	
40	Peqin	2.0	2.0	5.0	1.0	1.0	

D.3　個別指導

基本的に先に示したフォローアップまでの進捗状況の総合評価が 3 以下の自治体に対して優先的に個別指導を実施することとした。なお、評価が 4,5 の自治体であっても、未記入部分が残っている自治体に対しても可能な限り訪問し策定支援を行った。

D.3.1　個別指導内容

個別訪問では、未記入個所に対して、以下の様な方法で支援を行った。

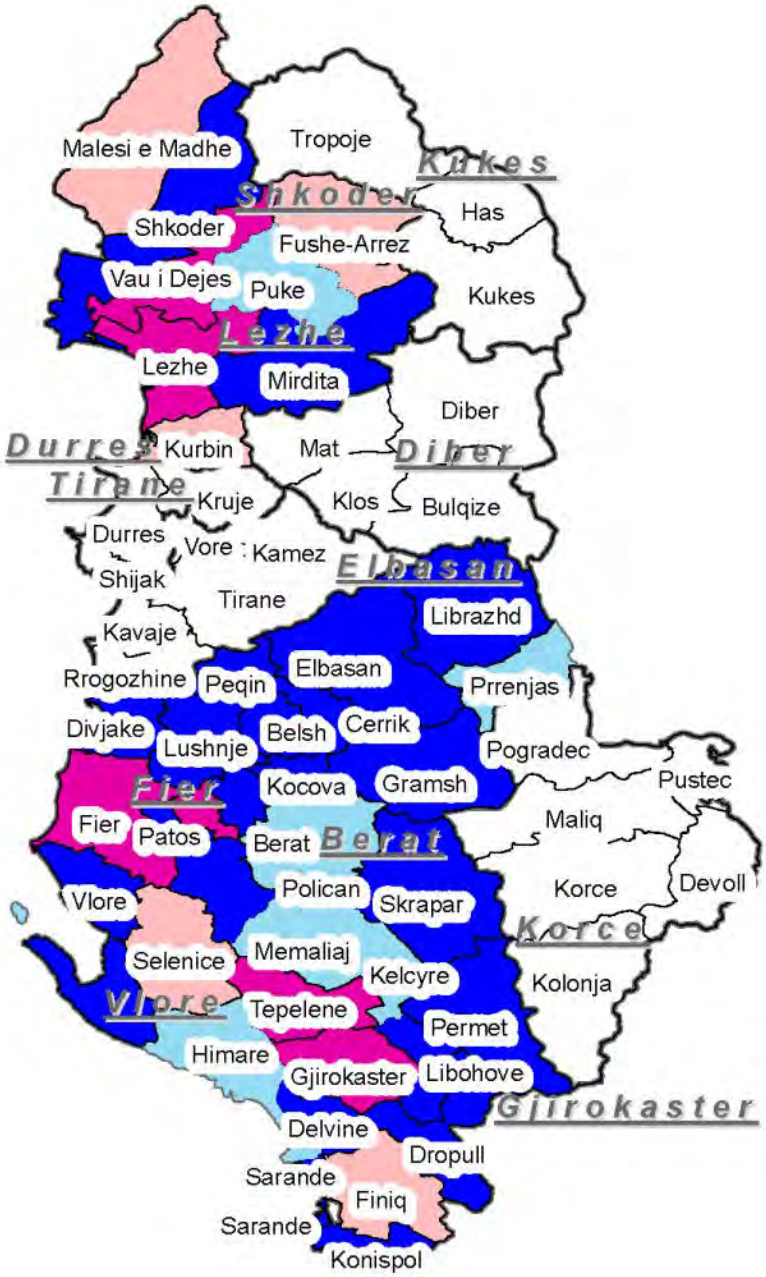
- 担当者に対して、記述方法を具体的に分かり易く説明し、その場で未記入情報を記入させる。
- 担当者が把握していない情報に関しては、現場に問い合わせる、あるいはその情報を扱っている関係部署に問い合わせる。
- 直接現場で内容を確認する。

D.3.2　個別指導結果

個別指導した自治体、訪問スケジュール及び実施結果を以下に示す。

個別訪問によって策定支援を行った自治体数は合計 24 自治体であった。個別指導の結

果、現況及び問題点がほぼ完成できた自治体（総合評価 5,4）の数が 28 自治体となった。



※　青：5.0、赤：4.0、桃色：1.0-3.0、水色：不参加

図 33:個別指導した自治体

表 51:個別指導結果

自治体名		訪問日	評価結果				
			総合評価	現状把握	ごみフロー	財政状況	問題・留意点
1	Gjirokastër	2016/11/23	**4.0**	**4.0**	**5.0**	1.0	**5.0**
2	Dropull	2016/11/23	**5.0**	**4.0**	**5.0**	**5.0**	**5.0**
3	Libohovë	2016/11/23	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
4	Përmet	submitted	**5.0**	**5.0**	**5.0**	**4.0**	**5.0**
5	Tepelenë	submitted	**4.0**	**5.0**	**5.0**	1.0	**5.0**
6	Memaliaj	N/A	0.0				
7	Kelcyrë	N/A	0.0				
8	Sarandë	2016/11/24	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
9	Konispol	2016/11/23	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
10	Finiq	ー	1.0	1.0	1.0	1.0	1.0
11	Delvinë	2016/11/24	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
12	Vlorë	2016/11/24	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
13	Selenice	ー	**3.0**	1.0	**5.0**	1.0	**5.0**
14	Himarë	N/A	0.0				
15	Fier	2016/12/13	**4.0**	**5.0**	**5.0**	1.0	**5.0**
16	Mallakastër	2016/12/01	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
17	Patos	2016/12/13	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
18	Roskvec	2016/12/1&13	**4.0**	**5.0**	**5.0**	1.0	**5.0**
19	Lushnje	2016/12/06	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
20	Divjakë	2016/12/06	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
21	Berat	N/A	0.0				
22	Kuçovë	2016/12/01	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
23	Ura Vajgurore	2016/12/01	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
24	Poliçan	N/A	0.0				
25	Skrapar	2016/12/06	**5.0**	**5.0**	**5.0**	**4.0**	**5.0**
26	Shkodër	2016/12/12	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
27	Pukë	N/A	0.0				
28	Fushë Arrës	-	2.0	1.0	**5.0**	1.0	1.0
29	Vau i Dejës	submitted	**4.0**	**4.0**	**5.0**	1.0	**5.0**
30	Malesi e madhe	-	2.0	1.0	**5.0**	1.0	1.0
31	Lezhë	2016/12/12	**4.0**	**5.0**	**5.0**	1.0	**5.0**
32	Mirditë	2016/12/12	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
33	Kurbin	-	2.0	1.0	**5.0**	1.0	1.0
34	Elbasan	2016/12/07	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**

自治体名		訪問日	評価結果				
			総合評価	現状把握	ごみフロー	財政状況	問題・留意点
35	Cërrik	submitted	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
36	Belsh	2016/12/07	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
37	Gramsh	2016/12/07	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
38	Prrenjas	N/A	0.0				
39	Librazhd	2016/12/7	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**
40	Peqin	2016/12/7	**5.0**	**5.0**	**5.0**	**5.0**	**5.0**

NA: ワークッショプ不参加。　－：戸別訪問は必要であったが都合が付かなかった。

ワークッショプ、フォローアップ及び個別指導を通じて、28 自治体において 3R アクションプラン（現況及び問題把握）が策定され、廃棄物管理の実態が明らかとなった。これらの実態は各自治体の廃棄物管理にとって重要な情報であるのみならず、国全体の廃棄物管理の実態を知る上でも、さらには今後の廃棄物管理の推進方針を設定する上でも重要な情報であることから、全ての自治体において、先ず3Rアクションプランを策定し、それを基に定期的にデータを更新していくことを推奨する。明らかとなった実態の内、主な廃棄物管理の現状と廃棄物管理に係る財政の現状をまとめた。

a　廃棄物管理の現状

主な廃棄物管理の現状を示す項目及び算出方法等を表 1-4 に、また得られた廃棄物管理の情報及びデータを表 1-5 にまとめた。

表 52:主な廃棄物管理の現状把握内容

項目	選択内容／定義／算出方法
収集運搬の実施主体	自治体／民間・公社／自治体・民間が地区を分けて分担／その他
最終処分場の形態	A.衛生埋立／B.衛生埋立ではないが承認された処分場／C.承認を受けていない処分場
ごみ量 (ton/day)	3R ガイドラインで開発したごみフロー作成プログラムによって求められた、都市ごみ発生量（家庭ごみ量＋事業系及び公共清掃に伴うその他ごみ量）、都市ごみ収集量
ごみ原単位 (g/person/day)	上記都市ごみ発生量及び収集量を人口で除して、1 人 1 日当たりのごみ原単位に換算したもの。
収集率(%)	本プロジェクトロジェクトで実施した全国廃棄物管理調査による旧自治体別収集率及び新市による修正データを基に、新市を構成する旧自治体の収集率及び人口を加味した市全体の収集率を算出した。
リサイクル率(%)	ごみフロー作成プログラムによって求められたリサイクル量の都市ごみ発生量に対する割合（発生源、排出地点及び処分場におけるリサイクル率の合計）を求めた。
最終処分率(%)	処分場に処分される都市ごみ量を発生量で除した割合を求めた。

これら情報から、アルバニアにおける以下の様な廃棄物の現況をまとめることが出来る。

□　ごみの収集運搬実施主体の傾向

ごみの収集運搬は、策定した 28 自治体のうち、13 自治体が直営（自治体が所有する収集車両及び自治体職員による収集・運搬）、10 自治体が民間委託、また合併後の収集体制の統一がとれていないため 5 自治体では旧自治体別に直営と民間委託両方で実施されている。

□　最終処分の実態

現在、アルバニアには以下の広域処分場（衛生処分場）が整備されている。

- Bushat 処分場（Shkoder Qarku）
- Sharra 処分場(Tirana Qarku)
- Bajkaj (Vlora Qarku)
- Elbasan 処分場（Elbasan Qarku）

28 自治体の内、行政区の一部でもこれら広域処分場に収集ごみを処分している自治体は 7 自治体であった。

□　都市ごみ発生ごみ原単位

都市ごみ発生ごみ原単位と人口規模の関係を下図に示す。人口 50,000 人以下の自治体の発生ごみ原単位は、おおよそ 500g/人・日であり、人口の増加に伴い原単位が増加する傾向が顕著に表れ、人口 200,000 人規模の自治体では 700g/人・日程度まで増加している。

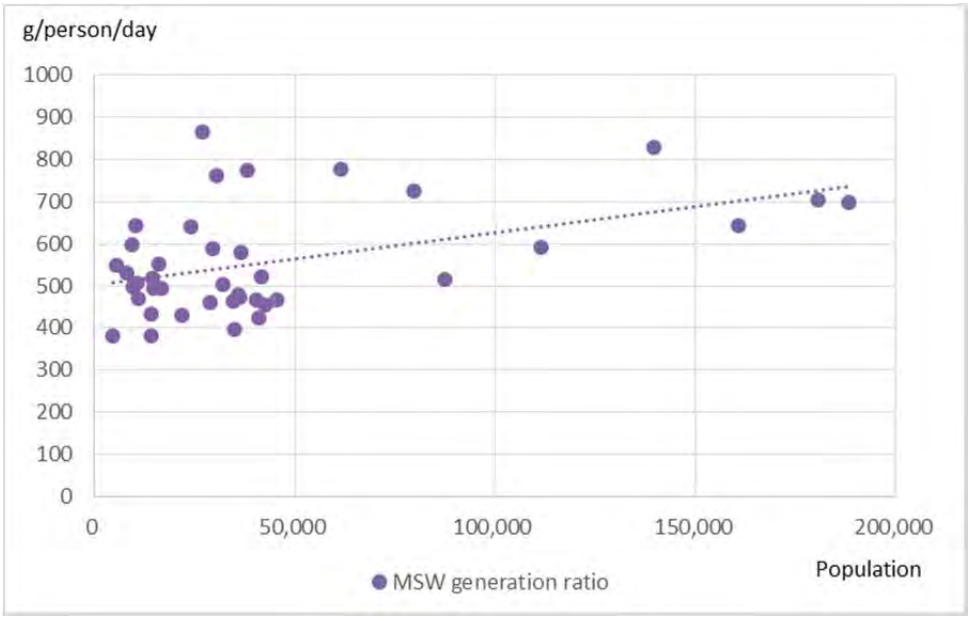


図 34:都市ごみ発生ごみ原単位と人口規模の関係

□ 収集率及び処分率

収集率と人口規模の関係を下図に、また処分率と人口規模の関係を図 35 に示す。人口 50,000 人以下の自治体の収集率、処分率共に、おおよそ 60%程度であり、人口の増加に伴い 100%に向けて直線的に増加している。なお、現在のアルバニアにおいては、コンポスト、資源化施設等の中間処理施設がないため、収集率はほぼ処分率と同じ割合となっている。今後、資源化、減量化施策を講じ、処分率を低減させることが重要となってくる。

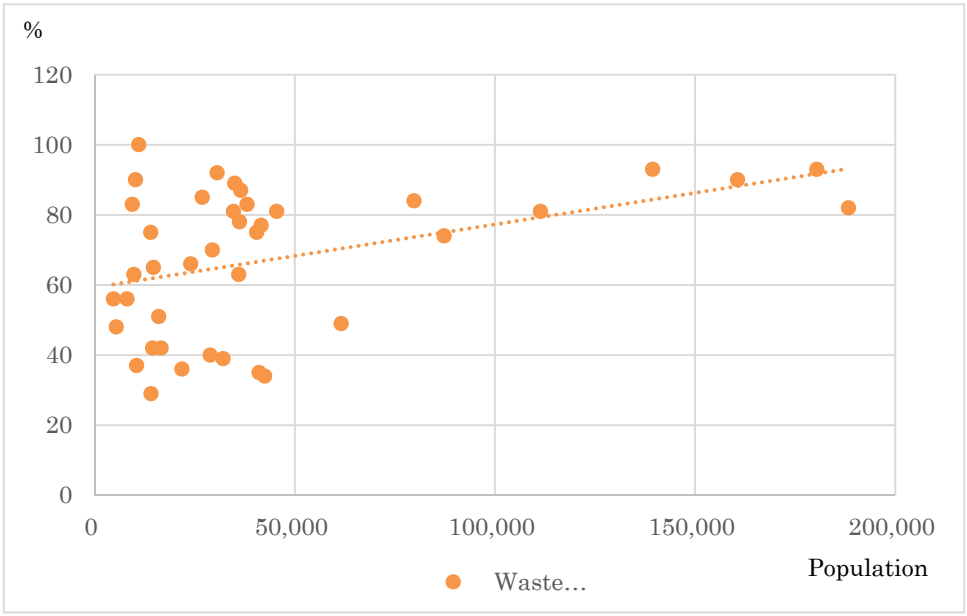


図 35:収集率と人口規模の関係

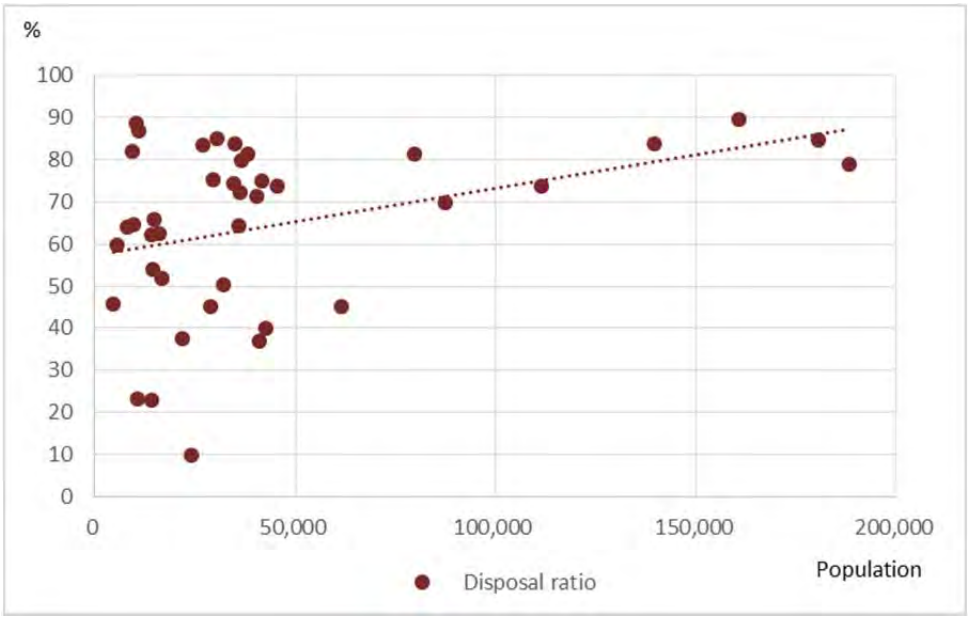


図 36：処分率と人口規模の関係

表 53：3R アクションプランから得られた廃棄物管理の情報及びデータ

No.	Population in 2015	State	Sector provided collection service	Type of disposal site	Waste generation amount	Waste collection amount	MSW generation ratio	MSW collection ratio	Waste collection coverage	Recycling ratio	Disposal ratio
1	38,100	Gjirokastër	Municipality	B	29.52	24.29	775	638	83	11.2	81.5
2	4,700		Municipality	C	1.79	0.82	381	174	56	16.2	45.8
3	5,400		Municipality	B	2.97	1.80	550	333	48	9.4	59.9
4	16,000		Municipality	B	8.85	5.58	553	349	51	8.9	62.5
5	9,400		Municipality	B	5.61	4.64	597	494	83	7.8	82.0
6	14,100		-	-	6.11	1.41	433	100	29	13.1	22.9
7	8,100		-	-	4.30	2.77	531	342	56	9.5	64.0
8	26,900	Vlorë	Private Municipality	A	23.26	19.62	865	729	85	10.7	83.5
9	11,000		Municipality	A	5.17	4.54	470	413	100	12.4	86.8
10	14,000		-	B	5.33	3.36	381	240	75	16.5	62.3
11	10,200		Municipality	A	6.57	5.83	644	572	90	5.9	88.7
12	139,400		Private	B	115.75	98.03	830	703	93	10.6	83.9
13	21,800		-	B	9.35	3.52	429	161	36	13.4	37.4
14	10,500		-	-	5.32	1.23	507	117	37	9.8	23.3
15	160,600	Fier	Private Municipality	B	103.42	86.91	644	541	90	12.3	89.5
16	36,000		Private Municipality	B	17.27	11.21	480	311	63	11.6	64.3
17	30,600		Municipality	B	23.30	19.98	761	653	92	11.4	84.9
18	28,900		Municipality	B	13.31	10.89	461	377	92	12.1	81.4
19	111,400		Private	B	65.96	49.02	592	440	81	12.7	73.6
20	45,500		Municipality	B	21.24	15.83	467	348	81	12.2	73.8
21	79,800	Berat	-	-	57.97	47.63	726	597	84	11.6	81.3
22	41,600		Private	B	21.69	16.42	521	395	77	10.2	74.9
23	36,200		Private	B	17.14	12.52	473	346	78	12.0	72.3
24	14,500		-	-	7.50	4.10	517	283	42	10.1	54.1
25	16,600		Municipality	B	8.20	4.28	494	258	42	10.9	51.7
26	180,400	Shkodër	Private Municipality	A	126.93	108.75	704	603	93	11.8	84.8
27	14,700		-	-	7.28	4.84	495	329	65	11.1	65.8
28	9,800		-	-	4.88	3.17	498	323	63	10.7	64.5
29	40,500		Privete	A	18.94	13.62	468	336	75	11.8	71.2
30	41,100		-	-	17.41	6.48	424	158	35	13.8	36.9
31	87,300	Lezhë	Privete	A	44.96	31.65	515	363	74	13.7	69.8
32	29,400		Privete	B	17.33	13.19	589	449	70	7.5	75.4
33	61,600		-	-	47.89	21.77	777	353	49	7.7	45.0
34	188,300	Elbasan	Private	A(rural B)	131.22	104.66	697	556	82	11.8	79.0
35	36,500		Municipality	B	21.08	17.01	578	466	87	10.9	79.9
36	35,000		Municipality	B	13.94	11.79	398	337	89	9.7	83.7
37	32,100		Private Municipality	B	16.12	8.20	502	255	39	10.6	50.4
38	24,000		-	-	15.33	9.87	639	411	66	12.2	9.77
39	42,500		Private	B	19.40	7.83	456	184	34	12.3	40.0
40	34,700		Private	B	16.15	12.12	465	349	81	12.3	74.3
				A	Landfill site with sanitary facilities						
				B	Approved disposal site without sanitary facilities						
				C	Disapproved disposal site						

b　廃棄物管理に係る財政の現状

廃棄物処理の現状を把握するには、廃棄物に関わる財政状況の把握は最も大切な現状把握要素である。主な廃棄物管理に係る財政の現状を示す項目及び算出方法等を表 1-6 に、また得られた廃棄物管理に関わるデータ及び指標を表 1-8 にまとめた。

表 54:主な廃棄物管理に係る財政の現状把握内容

項目		定義及び算出方法
廃棄物管理に係る財政のデータ		2015 年及び 2016 年は自治体の統廃合の移行期であったため､財政データを確定するのが困難であった。 今後の整理に当たっては､過年の決算を基に財政データを整理することを勧める。
	市の全体予算	
	廃棄物処理費	全ての都市ごみ廃棄物処理費（収集運搬、中間処理、処分、公共清掃、清掃に係る機材の維持管理、人件費、その他管理費等）の合計
	清掃税（家庭）	清掃税（ごみ収集及び清掃に関わる税）には家庭の他に事業所の規模等によって税金が設定されているが､ここでは家庭に絞って整理した。
	徴収清掃税	清掃税の年間総徴収額
	清掃税徴収率	清掃税の徴収率

財政データ及びごみ収集量から、以下の様な廃棄物管理の実施状況を評価するための重要な指標が得られる。

- ☐ ごみ処理ユニットコスト**(leke/ton)**＝（年間ごみ処理コスト）／（年間収集ごみ量）
- ☐ ごみ処理費の自治体の予算に占める割合**(%)**＝（年間ごみ処理コスト）／（年間市の予算）× **100**
- ☐ 徴収清掃税がごみ処理コストを賄っている割合**(%)**＝（年間徴収清掃税）／（年間ごみ処理コスト）×**100**

3R アクションプランから得られた各自治体のデータ及びそれらを基に得られた指標を表 1-8 にまとめた。この指標を用いて、アルバニアの各都市における以下の様な廃棄物管理に関する財政状況が見て取れる。

① 徴収清掃税がごみ処理費を賄っている割合が高い自治体は､税の設定が適切でかつ徴収率が良いことが言える。(No.8, 19, 20, 23, 26, 34)

② これら自治体では、1 家庭当たり 2,000 leke//year 以上の清掃税を徴収しているところが多い。

③ 清掃税が、家庭に対して年 2,000leke 以上で設定されている自治体の場合、ごみ処理のための財源が適正に確保され､自治体の予算に占めるごみ処理費の割合が低く抑えられている傾向にある。

④ 徴収清掃税がごみ処理費を賄っている割合が低い自治体は、税の設定が低いか、徴収率が悪いかあるいは両方の要素を含んでいることが考えられる。(No.3, 16, 32, 36,)

⑤ ユニットコストの捉え方

ユニットコストの適正な基準はない。同じような人口規模及び都市環境であればユニットコストは同程度の数値となるはずである。ただし、以下の様な要素によってユニットコストは違ってくる。

・ごみの収集を民間委託で実施している場合の委託条件
・収集効率：農村地帯・山岳地帯の方が市街地とより一般的に収集効率が悪い。
・処分場までの収集ごみの運搬距離
・処分料金

従って、同じような人口規模、都市環境の自治体間のユニットコストを比較することで、廃棄物処理コストの問題点を検証するための指標となる。

⑥ 市の財政に占める清掃費の割合の考え方

「市の財政に占める清掃費の割合」についても、ユニットコストと同様に適正な基準はないが、同じような人口規模及び都市環境であれば「市の財政に占める清掃費の割合」はほぼ同じ程度の割合となるはずである。ただし、以下の様な要素によって「市の財政に占める清掃費の割合」は違ってくるため、同じような人口規模、都市環境の自治体間の「市の財政に占める清掃費の割合」を比較することで、廃棄物処理に係る財政状況の問題点を検証するための指標となる。

- 財政規模
- 清掃税の徴収額と徴収率
- 処理費（委託費、収集費用、運搬費、処分費等）

□ 適正清掃税の大まかな目安

さらに、以上の財政データを用い、以下の式から適正清掃税の大まかな目安を求めることが出来る。

- ごみ料金が 100%集まった時の税収 (G) = (Collected waste fee) / (Percentage of collected fee)
- ごみ処理コストを賄うためにさらに必要な税収の比率 (H) = (SWM cost) / (G)
- 現在のごみ料金に必要な税収比率を加味したごみ料金 (I) = (Waste fee per family) x (H)

表 55:適正清掃税の大まかな目安

			A	B	C	D	E	F	E/C	G=E/(F/100)	H=C/G	I=DxH
No.	Population in 2015	State	Waste collection amount	Municipal total budget	SWM cost	Waste fee per family	Collected waste fee	Percentage of collected fee	Ratio which annual SWM cost was covered by waste fee	ごみ料金が100%集まった時の税収	ごみ処理コストを賄うためにさらに必要な税収の比率	現在のごみ料金に必要な税収比率を加味したごみ料金
			ton/day	mil leke	mil leke	leke/year	mil leke	%	%	mil leke	%	leke/year
3	5,400	Gjirokastër	1.80	80.08	2.02	500	0.09	25%	4.5%	0.37	5.45	2,725
8	26,900		19.62	862.00	53.20	2,880	50.07	100.0%	94.1%	50.07	1.06	3,053
9	11,000	Vlorë	4.54	124.00	7.20	300	1.00	100.0%	13.9%	1.00	7.20	2,160
11	10,200		5.83	163.00	13.00	800	6.4	100.0%	49.2%	6.40	2.03	1,624
17	30,600		19.98	432.69	31.56	900	18.23	79%	57.8%	23.02	1.37	1,233
19	111,400	Fier	49.02	932.65	71.82	2,400	71.82	100.0%	100.0%	71.82	1.00	2,400
20	45,500		15.83	228.00	15.32	2,400	13	60.0%	84.9%	21.67	0.71	1,704
22	41,600	Berat	16.42	329.94	32.01	1,500	12.67	60.0%	39.6%	21.12	1.52	2,280
23	36,200		12.52	200.00	12.64	900	10	80.0%	79.1%	12.50	1.01	909
26	180,400	Shkodër	108.75	1,655.45	142.00	3,800	156.00	97%	109.9%	160.82	0.88	3,344
32	29,400	Lezhë	13.19	154.90	28.7	700	4.45	50%	15.5%	8.90	3.22	2,254
34	188,300		104.66	2,524.27	89.66	2,400	86.00	77.0%	95.9%	111.69	0.80	1,920
35	36,500		17.01	1,200.00	15.00	700	7.41	90%	49.4%	8.23	1.82	1,274
36	35,000		11.79	180.00	9.34	500	1.02	34.0%	10.9%	3.00	3.11	1,555
37	32,100	Elbasan	8.20	261.00	11.50	2,000	5.60	82.4%	48.7%	6.80	1.69	3,380
39	42,500		7.83	308.86	15.00	1,000	5.20	76%	34.7%	6.84	2.19	2,190
40	34,700		12.12	252.70	25.68	1,000	12.00	100%	46.7%	12.00	2.14	2,140

表 56：3R アクションプランから得られた廃棄物管理に係る財政データ及び指標

			A	B	C	D	E	F	C/A	C/B	E/C
No.	Population in 2015	State	Waste collection amount	Municipal total budget	SWM cost	Waste fee per family	Collected waste fee	Percentage of collected fee	SWM cost per waste collection amount	Ratio which annual SWM cost shared to annual Municipal total budget	Ratio which annual SWM cost was covered by waste fee
			ton/day	mil leke	mil leke	leke/year	mil leke	%	lek/ton	%	%
1	38,100	Gjirokastër	24.29								
2	4,700		0.82	124.00	1.50		1.50	90%	5,012	1.2%	100.0%
3	5,400		1.80	80.08	2.02	500	0.09	25%	3,068	2.5%	4.5%
4	16,000		5.58								
5	9,400		4.64								
6	14,100		1.41	-	-	-	-	-	-	-	-
7	8,100		2.77	-	-	-	-	-	-	-	-
8	26,900	Vlorë	19.62	862.00	53.20	2,880	50.07	100.0%	7,429	6.2%	94.1%
9	11,000		4.54	124.00	7.20	300	1.00	100.0%	4,345	5.8%	13.9%
10	14,000		3.36	-	-	-	-	-	-	-	-
11	10,200		5.83	163.00	13.00	800	6.4	100.0%	6,109	8.0%	49.2%
12	139,400		98.03	7,000.00	245.09		97.4		6,850	3.5%	39.7%
13	21,800		3.52	-	-	-	-	-	-	-	-
14	10,500		1.23	-	-	-	-	-	-	-	-
15	160,600	Fier	86.91								
16	36,000		11.21	44.00	5.20	500	1.30	15.0%	1,271	11.8%	25.0%
17	30,600		19.98	432.69	31.56	900	18.23	79%	4,328	7.3%	57.8%
18	28,900		10.89								
19	111,400		49.02	932.65	71.82	2,400	71.82	100.0%	4,014	7.7%	100.0%
20	45,500		15.83	228.00	15.32	2,400	13	60.0%	2,651	6.7%	84.9%
21	79,800	Berat	47.63	-	-	-	-	-	-	-	-
22	41,600		16.42	329.94	32.01	1,500	12.67	60.0%	5,341	9.7%	39.6%
23	36,200		12.52	200.00	12.64	900	10	80.0%	2,766	6.3%	79.1%
24	14,500		4.10	-	-	-	-	-	-	-	-
25	16,600		4.28	373.80	12.27	1,600	4.27	100.0%	7,854	3.3%	34.8%
26	180,400	Shkodër	108.75	1,655.45	142.00	3,800	156.00	97%	3,577	8.6%	109.9%
27	14,700		4.84	-	-	-	-	-	-	-	-
28	9,800		3.17	-	-	-	-	-	-	-	-
29	40,500		13.62								
30	41,100		6.48	-	-	-	-	-	-	-	-
31	87,300	Lezhë	31.65	640.00	70.952	3,700	27.00	70%	6,142	11.1%	38.1%
32	29,400		13.19	154.90	28.7	700	4.45	50%	5,961	18.5%	15.5%
33	61,600		21.77	-	-	-	-	-	-	-	-
34	188,300	Elbasan	104.66	2,524.27	89.66	2,400	86.00	77.0%	2,347	3.6%	95.9%
35	36,500		17.01	1,200.00	15.00	700	7.41	90%	2,416	1.3%	49.4%
36	35,000		11.79	180.00	9.34	500	1.02	34.0%	2,170	5.2%	10.9%
37	32,100		8.20	261.00	11.50	2,000	5.60	82.4%	3,842	4.4%	48.7%
38	24,000		9.87	-	-	-	-	-	-	-	-
39	42,500		7.83	308.86	15.00	1,000	5.20	76%	5,249	4.9%	34.7%
40	34,700		12.12	252.70	25.68	1,000	12.00	100%	5,805	10.2%	46.7%

c　自治体による 3R-AP 作成の見通し

以上、3R アクションプラン（現況及び問題点）がほぼ完成できた 28 の自治体が、最終化された 3R ガイドライン導入ワークショップに参加し、将来計画まで含めた 3R アクションプランを完成させれば、プロジェクト目標が達成できる見込みとなった。

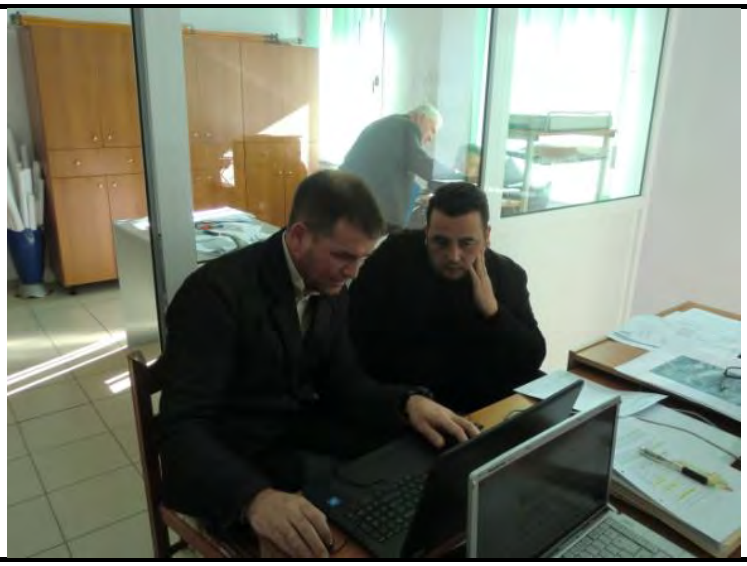
D.3.3　個別指導状況

a　個別指導状況(1)

訪問自治体	01: Gjrokaster 市
訪問日･時	2016 年 11 月 23 日（水） 9:00-
実施場所	市庁舎近くのカフェ
参加者	Mr. Anastos Sotiri (Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	財政の現状把握が不十分なため、追加データの提出を要求した。
実施模様	

b　個別指導状況(2)

訪問自治体	02: Dropull 市
訪問日･時	2016 年 11 月 23 日（水） 13:00-
実施場所	市役所
参加者	Mr. Leonidha Kaçi (Topographer Engineer)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。 必要な財政データについて説明し、後日の送付を約束した。

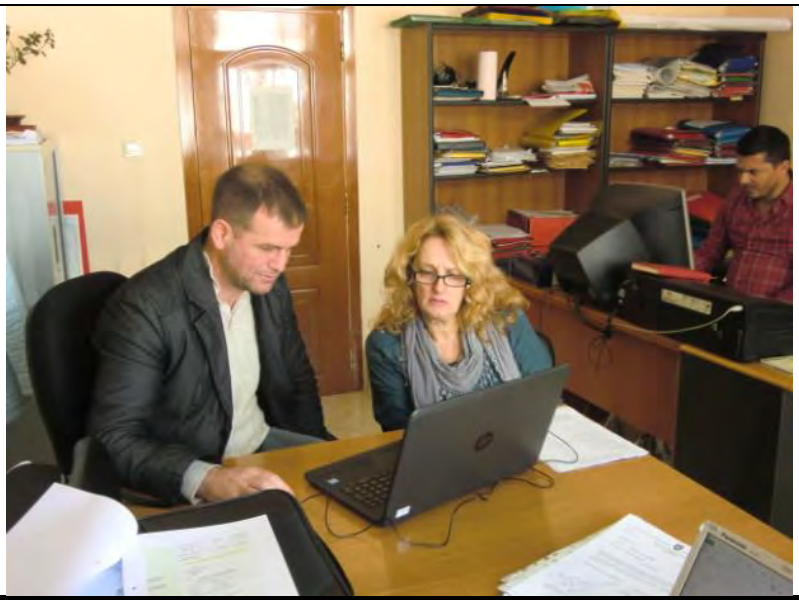
実施模様	

c　個別指導状況(3)

訪問自治体	03: Libohovë 市
訪問日・時	2016 年 11 月 23 日（水） 10:30-
実施場所	市役所
参加者	Mr. Gazmend Çulla (Administrator)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

d　個別指導状況(4)

訪問自治体	08: Saranadë 市
訪問日・時	2016 年 11 月 24 日（木） 11:20-
実施場所	市役所

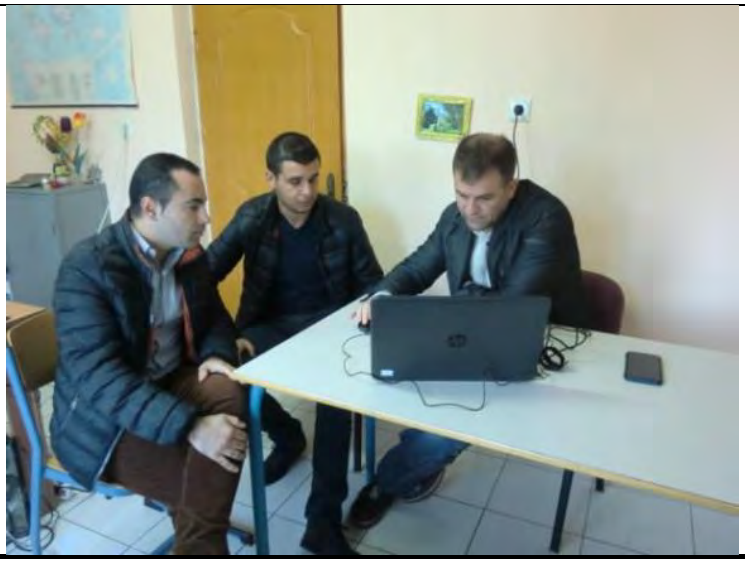
参加者	Ms. Areti Papadhimo (Environment Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

e　　個別指導状況(5)

訪問自治体	09: Konispol 市
訪問日・時	2016 年 11 月 23 日（水） 15:00-
実施場所	市役所
参加者	Ms. Teuta Cokall (Environment Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

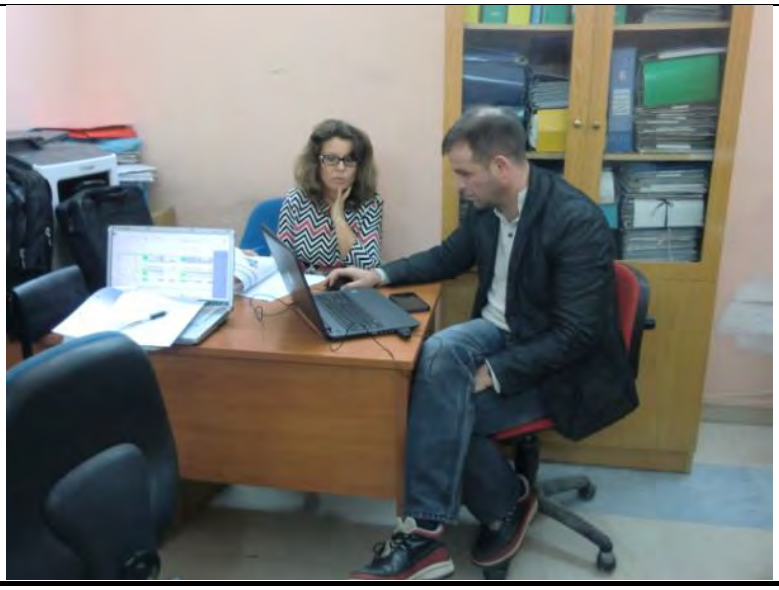
実施模様	

f　個別指導状況(6)

訪問自治体	11: Delvinë 市
訪問日・時	2016 年 11 月 24 日（木） 9:00-
実施場所	市役所
参加者	Mr. Fatmir Bulaj (Drainage Board) Mr. Olsi Rexha(Specialist, Directorate of Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

g　個別指導状況(7)

訪問自治体	12: Vlorë 市

訪問日・時	2016 年 11 月 24 日（木） 15:00-
実施場所	市役所
参加者	Ms. Valbona Çobani (Directorate of Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

h　　個別指導状況(8)

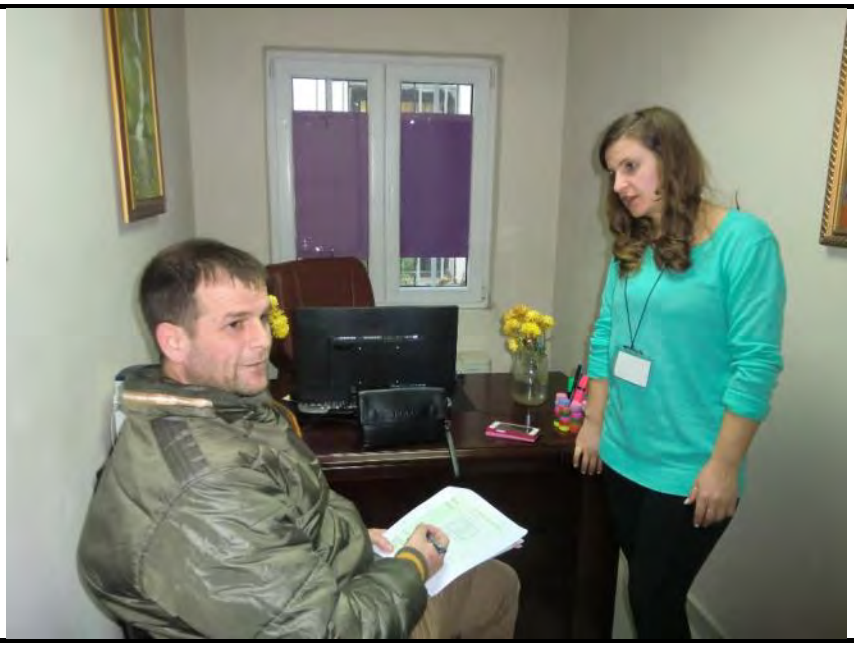
訪問自治体	16: Mallakastër 市
訪問日・時	2016 年 12 月 1 日（木） 8:30-
実施場所	市役所
参加者	Vice Mayer Mr. Elsid Zekaj (Environment Specialist) Mr. Anesti Skenderaj (Public Transport Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

実施模様	

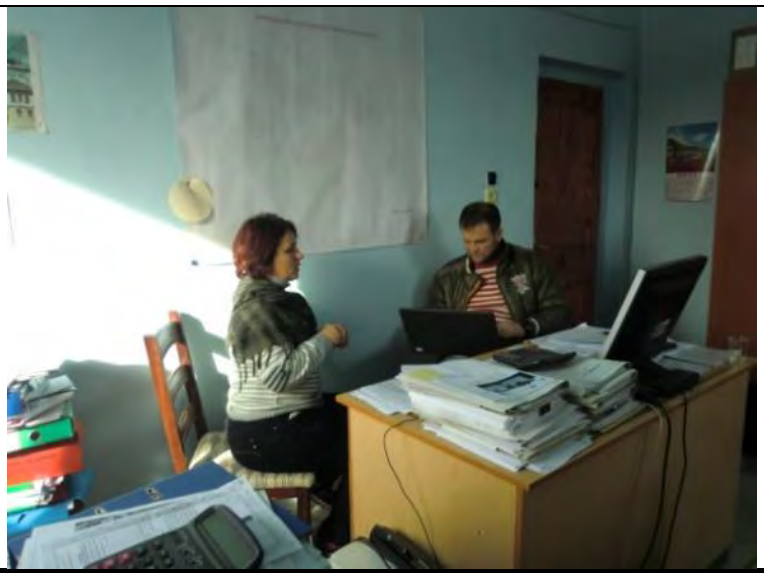
i　個別指導状況(9)

訪問自治体	18: Roskvec 市
訪問日・時	2016 年 12 月 1 日（木） 11:00-
実施場所	市役所
参加者	Mr. Selman Çepele (Chief of financial sector)
実施内容	☐ Site observation ■ Interview survey to related section ☐ Collection of necessary data/information ☐ Others
今後の予定	必要な財政データについて説明し、後日の送付を約束した。 SWM の現況及び問題点、ごみフローに関して追加聞き取り調査が必要。
実施模様	-

訪問自治体	18: Roskvec 市
訪問日・時	2016 年 12 月 13 日（火） 11:00-
実施場所	市役所
参加者	Mr. Selman Çepele (Chief of financial sector)
実施内容	☐ Site observation ■ Interview survey to related section ☐ Collection of necessary data/information ☐ Others
今後の予定	必要な財政データについて説明し、後日の送付を約束した。

実施模様	

j　個別指導状況(10)

訪問自治体	23: Ura Vajgurore 市
訪問日・時	2016 年 12 月 1 日（木） 12:30-
実施場所	市役所
参加者	Ms. Valentina Jançe　(Chief of public service sector)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

k　個別指導状況(11)

訪問自治体	22: Kuçovë 市

訪問日・時	2016 年 12 月 1 日（木） 14:30-
実施場所	市役所
参加者	Mr. Adriatic Çarka　(Directorate of Public Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

I　　個別指導状況(12)

訪問自治体	20: Divjakë 市
訪問日・時	2016 年 12 月 6 日（火） 8:20 --
実施場所	市役所
参加者	Mr. Mario Maçi (Emvironmental Inspector)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

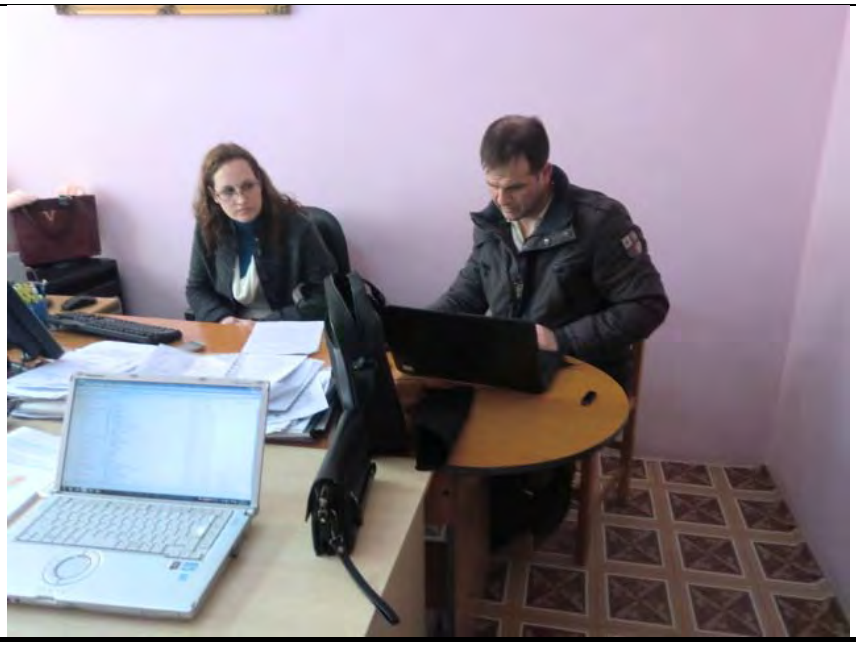
実施模様	

m　　個別指導状況(13)

訪問自治体	19: Lushije 市
訪問日・時	2016 年 12 月 6 日（火） 10:30-
実施場所	市役所
参加者	Mr. Besnik Dervishi (Director of Service)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

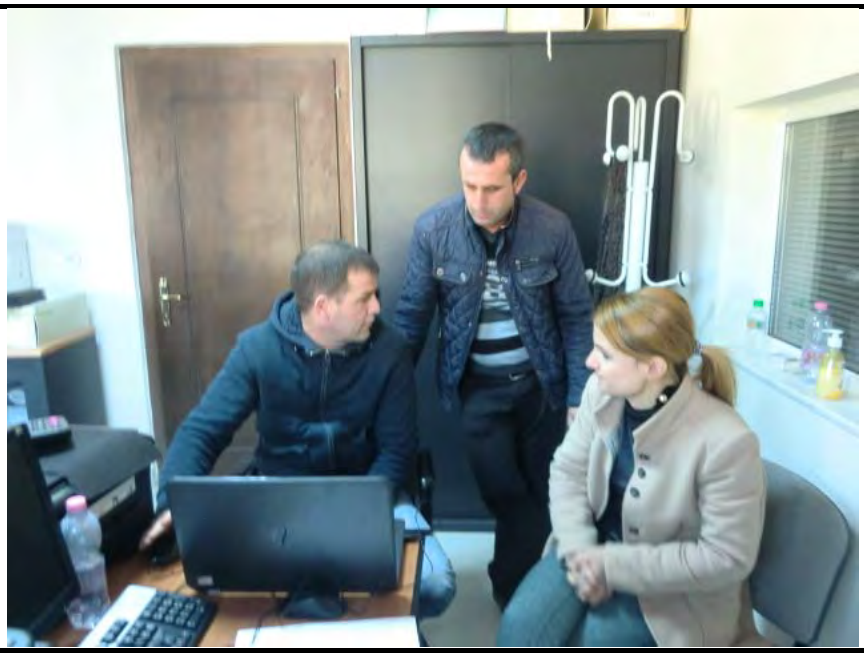
n　　個別指導状況(14)

訪問自治体	25: Skrapar 市

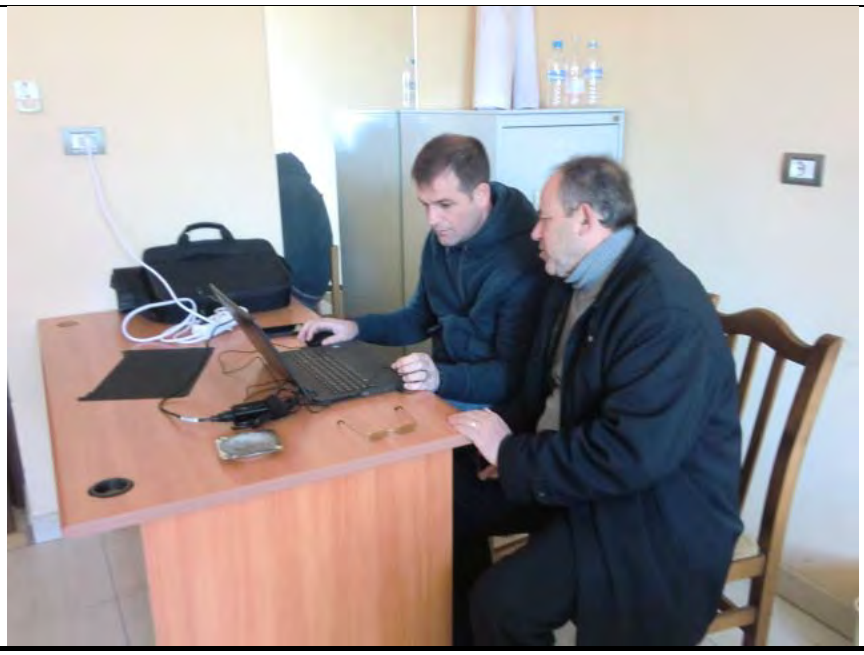
訪問日・時	2016 年 12 月 6 日（火） 13:30 -
実施場所	市役所
参加者	Ms. Sonila Hysenbelli (Environment Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

o　　個別指導状況(15)

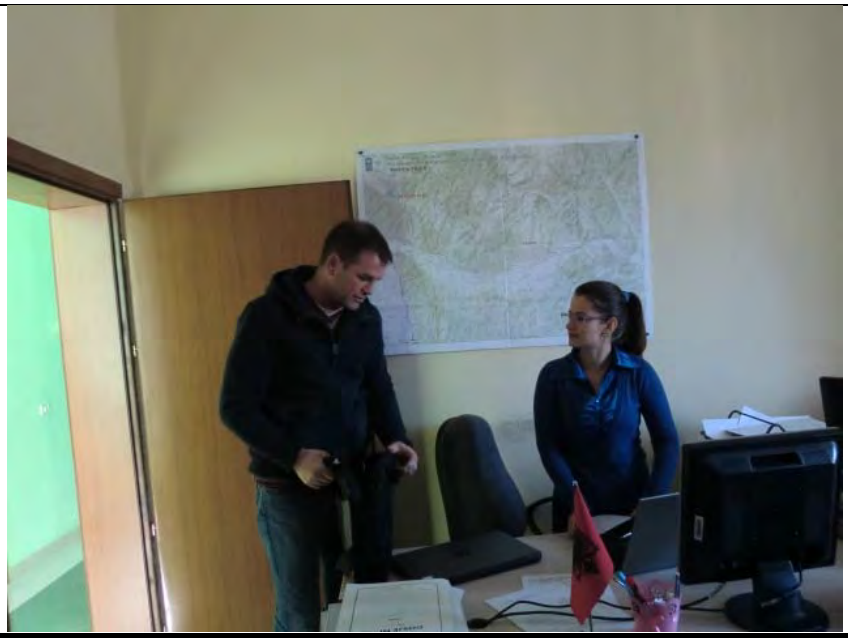
訪問自治体	39: Librazhd 市
訪問日・時	2016 年 12 月 7 日（水） 8:30 -
実施場所	市役所
参加者	Mr. Eduart Allkja (Environmental Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

実施模様	

p　個別指導状況(16)

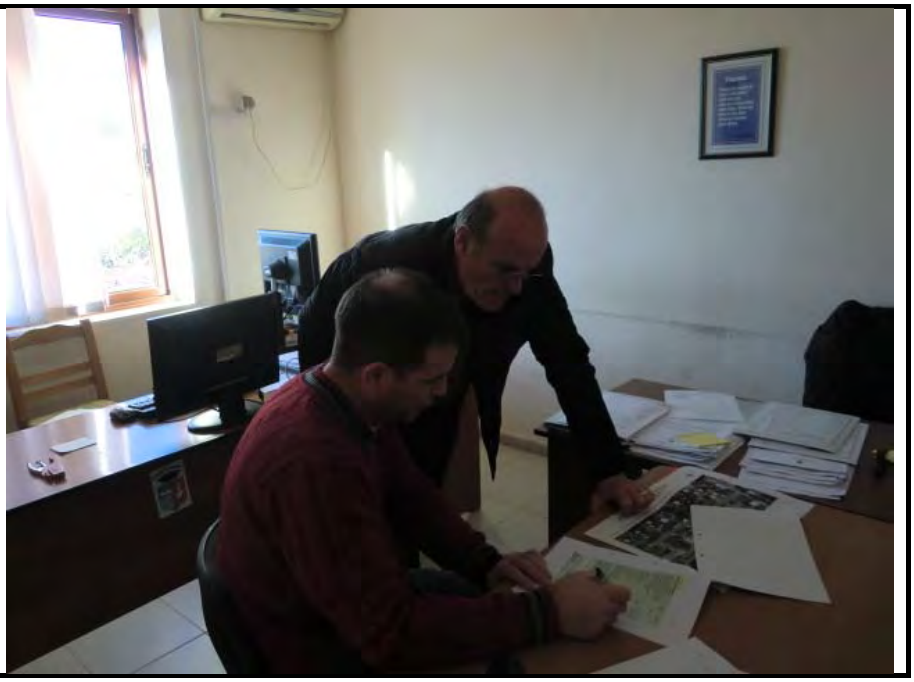
訪問自治体	34: Elbasan 市
訪問日・時	2016 年 12 月 7 日（水） 10:30-
実施場所	市役所
参加者	Mr. Sami Ballkoçi (Head of Environment Section) Mr. Mustafa Liçi (Supervisor of Cleaning Service)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

q 個別指導状況(17)

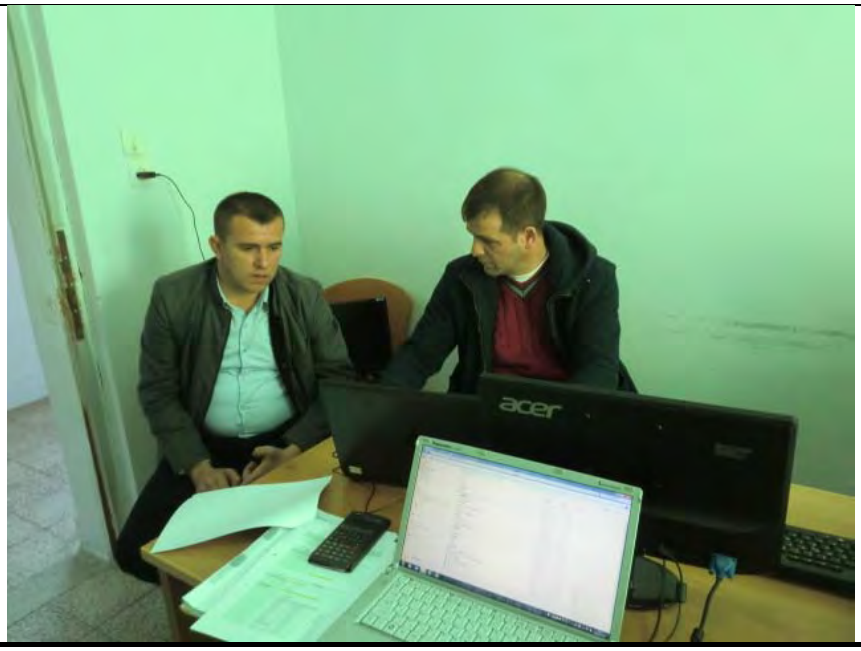
訪問自治体	40: Peqin 市
訪問日・時	2016 年 12 月 7 日（水） 12:30-
実施場所	市役所
参加者	Ms. Anita Dehima (Director of Public Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

r 個別指導状況(18)

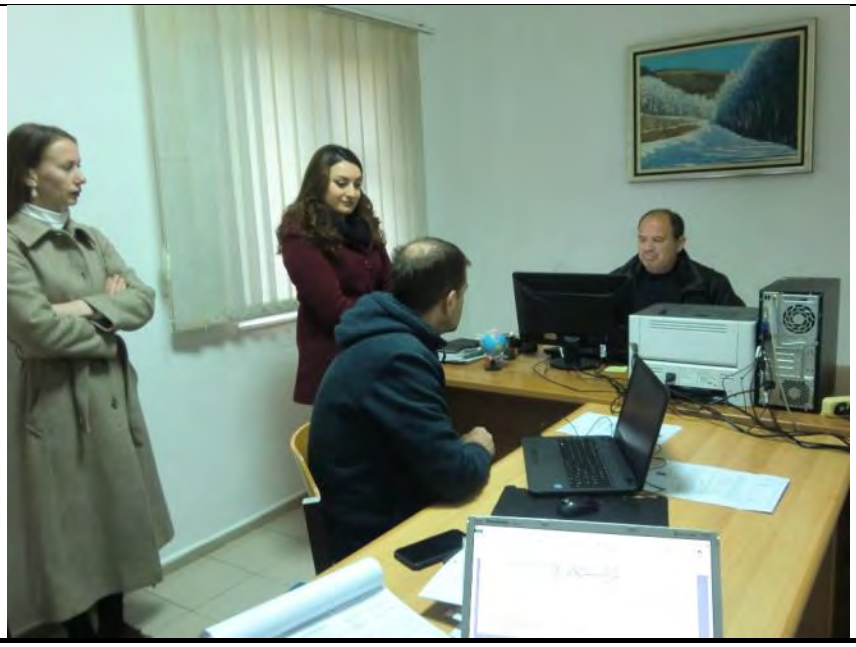
訪問自治体	36: Belsh 市
訪問日・時	2016 年 12 月 7 日（水） 14:00-
実施場所	市役所
参加者	Mr. Qemal Rusta (Head of Services Section)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

実施模様	

s　個別指導状況(19)

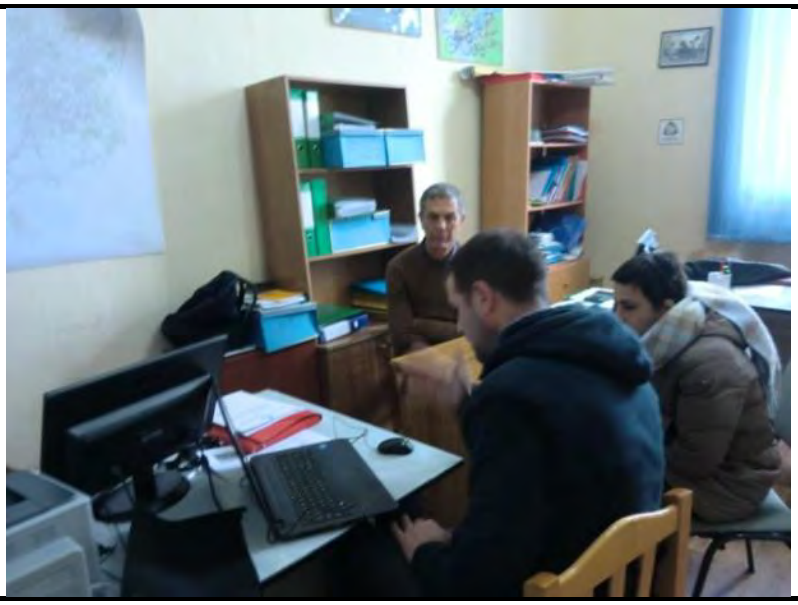
訪問自治体	37: Gramsh 市
訪問日・時	2016 年 12 月 7 日（水） 15:00 --
実施場所	市役所
参加者	Mr. Afrim Shtylla (Directorate of Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

t　個別指導状況(20)

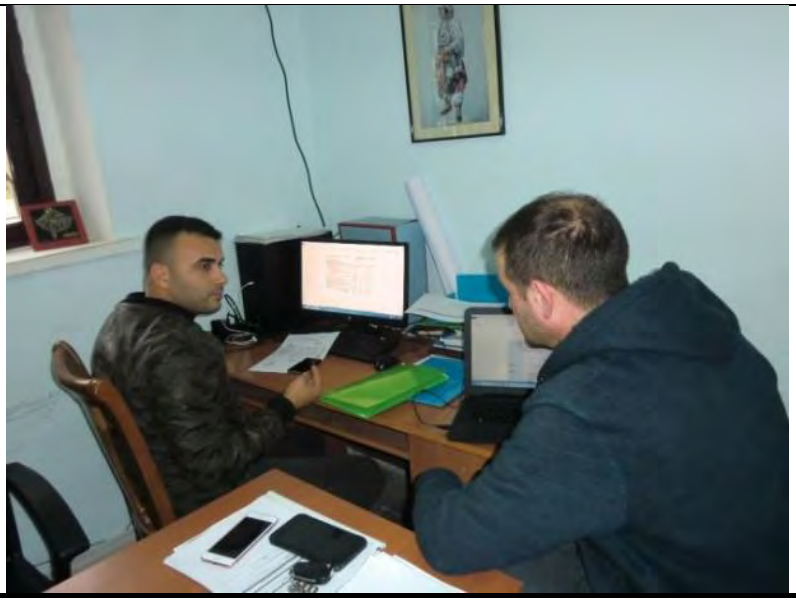
訪問自治体	32: Mirditë 市
訪問日・時	2016 年 12 月 12 日（月） 8:30 --
実施場所	市役所
参加者	Mr. Vladimir Gjeta　(Chief Inspector) Ms. Adelina Simoni (Deputy Chief Inspector)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

u　個別指導状況(21)

訪問自治体	26: Shkodër 市
訪問日・時	2016 年 12 月 12 日（月） 12:00 --
実施場所	市役所
参加者	Mr. Erkam Boriçi (Environment Specialist) Ms. Linda Bala (Specialist, Public Service)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

実施模様	

v　個別指導状況(22)

訪問自治体	31: Lezhë 市
訪問日・時	2016 年 12 月 12 日（月） 15:00 --
実施場所	市役所
参加者	Mr. Indrit Torba (Directorate of Public Services)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。
実施模様	

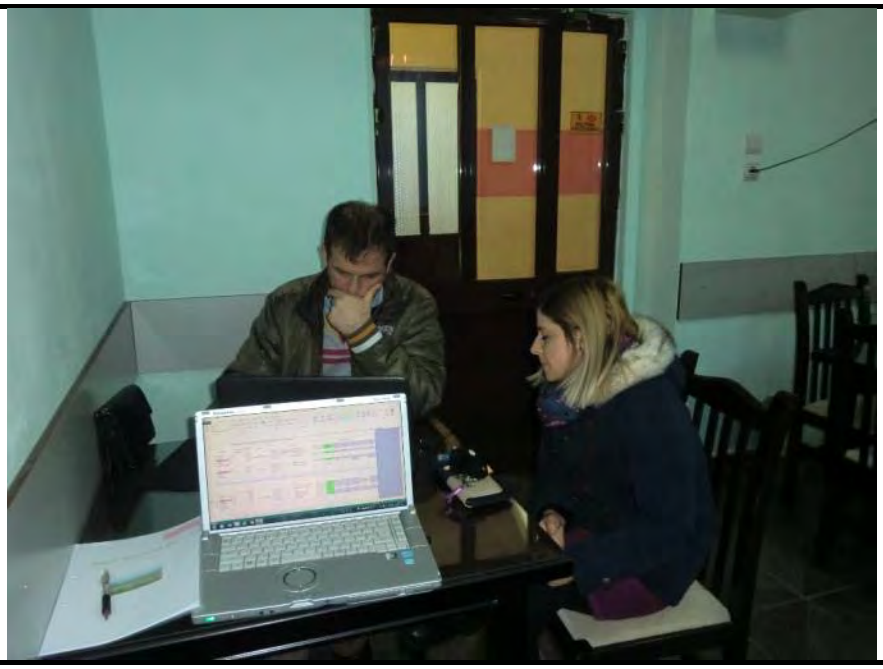
w　個別指導状況(23)

訪問自治体	15: Fier 市

訪問日・時	2016 年 12 月 13 日（火） 11:00 --
実施場所	市役所近くのカフェ
参加者	Ms. Alba (Environment Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。 必要な財政データについて説明し、後日の送付を約束した。
実施模様	

x　個別指導状況(24)

訪問自治体	17: Patos 市
訪問日・時	2016 年 12 月 13 日（火） 13:30 --
実施場所	市役所
参加者	Ms. Blerina Troka (Environment Specialist)
実施内容	☐ Site observation ■ Interview survey to related section ■ Collection of necessary data/information ☐ Others
今後の予定	3R-AP の現況及び課題は完成した。

実施模様	

6.3　MoE による地方自治体支援能力向上

6.3.1　3R アクションプラン作成支援に係る指導

終了時評価での指導を受け、2017 年 1 月 28 日に環境省の担当者 3 名に対して、3R アクションプラン作成支援に対する指導を行った。指導は①州におけるワークショップ、②電話、メールでのフォローアップ及び③個別訪問指導について、昨年専門家チームが実施した実例を元に説明した。説明では、自治体担当者の①技術レベルの判定方法、②実施スケジュール及び③必要経費についても説明した。

環境省側からは、3 名の職員で 61 自治体全てを指導するのには無理があるとの意見が寄せられたが、環境省が責任を持って NGO、外部コンサルタントに委託して実施することは環境省が実施したと同意である。また、外部に発注するためには発注者である環境省が内容を理解する必要があることを説明し、環境省の理解を得た。以下にマニュアルを示す。

3Rアクションプラン作成支援
業務マニュアル

2017年2月

JICA　専門家チーム

目次

1　マニュアルの目的

3Rガイドラインでは、各自治体は、まず3Rアクションプランを策定し、廃棄物管理の現状及び問題を把握し、その改善に寄与する3R活動を選定し実施することを推奨している。

本マニュアルは、各自治体の3Rアクションプラン策定を、環境省がワークショップ、フォローアップ及び戸別訪問等を通じて支援していくための業務をマニュアルとしてまとめたものである。

2　役割分担

3Rアクションプラン策定及びその支援の主な関係機関は環境省、州政府及び自治体である。それぞれの役割を以下に示す。

表 2-1　3Rアクションプラン策定及びその支援の主な関係機関と役割

機関	役割
環境省	• ワークショップ開催スケジュールを策定する。 • 開催趣旨、日程、招待リストを州政府に送付し、各自治体参加の呼びかけを州政府に依頼する。 • ワークショップに必要な、資料、機材を準備する。 • ワークショップにおいて、目的、ごみフロー、廃棄物管理の現状と課題の把握及び3R活動選定手法について説明する。 • 参加自治体に最低1台ずつのパソコンを準備し、説明のあと、実際にごみフロー、廃棄物管理の現状と課題及び3R活動選定を3Rアクションプランの様式に入力させる。 • ワークショップにおける各自治体の習熟度をモニタリングシートに記録する。 • ワークショップ開催後、電話、メールにて、自治体担当者へ3Rアクションプランの作成進捗状況を確認する。また、ワークショップに参加出来なかった自治体に対して、指導の希望を確認する。 • ワークショップ及びその後各自治体によってアップデートされた3Rアクションプランの策定内容を検証し、進捗状況があまり芳しくない自治体に対して、個別指導を実施する。また、ワークショップに参加出来なかった自治体のうち、指導を希望する自治体に対して個別指導を実施する。 • 策定された各自治体の3Rアクションプランを整理する。
州政府	• 環境省の要請に応じて、各自治体に開催趣旨、日程等を送付し、参加を促す。 • ワークショップの会場を準備する。 • ワークショップに参加し、3Rアクションプラン策定状況を把握する。
自治体	• 環境省が準備し、州政府が参加を呼び掛けたワークショップに参加する。 • ワークショップに参加し、3Rアクションプランを策定する。 • 3Rアクションプランを完成させ、州政府を通じ環境省に提出する。なお、ワークショップ後に策定支援が必要な自治体、あるいは環境省もしくは州政府から策定状況が芳しくないと判断された自治体は個別指導を受ける。

3　ワークショップ開催と3Rアクションプラン策定スケジュール

3Rアクションプラン策定支援ワークショップは、1回／半年度開催する。また、3Rガイドラインが改訂されたとき、あるいは国の廃棄物管理に関する方針に変更が生じたときに临機応く開催する。

開催スケジュールは以下を考慮して設定する。

州ごとにワークショップを開催する。
開催場所は、各自治体の移動距離、時間を考慮の上決定する。
なお、ワークショップ開催は原則1日とするが、参加するのに移動距離が長く、時間がかかる自治体が複数ある場合には、州内の複数箇所で開催し、参加自治体の負担を軽減させる。
開催日程は、やむを得ない理由で参加できない自治体が出ることをある程度想定し、予備日を設けてスケジュールを組む。
また、ワークショップ開催地から次の開催地までの移動距離、時間を考慮してスケジュールを組む。

3Rアクションプラン完成までのスケジュールを図 3-1 に示す。3Rアクションプランを完成させ、環境省に提出するまでに約10カ月を要する。

図 3-1 3R アクションプラン完成までのスケジュール

Month	1	2	3	4	5	6	7	8	9	10
To prepare workshops for supporting LGUs to formulate 3R Action Plan(Workshop for 3R-AP)	■	■								
To hold Workshop for 3R-AP to each state			■	■						
Follow up of the 3R-AP					■	■				
Individual visit to municipality							■	■		
To submit 3R-AP to MoE directly or through States governments									■	■

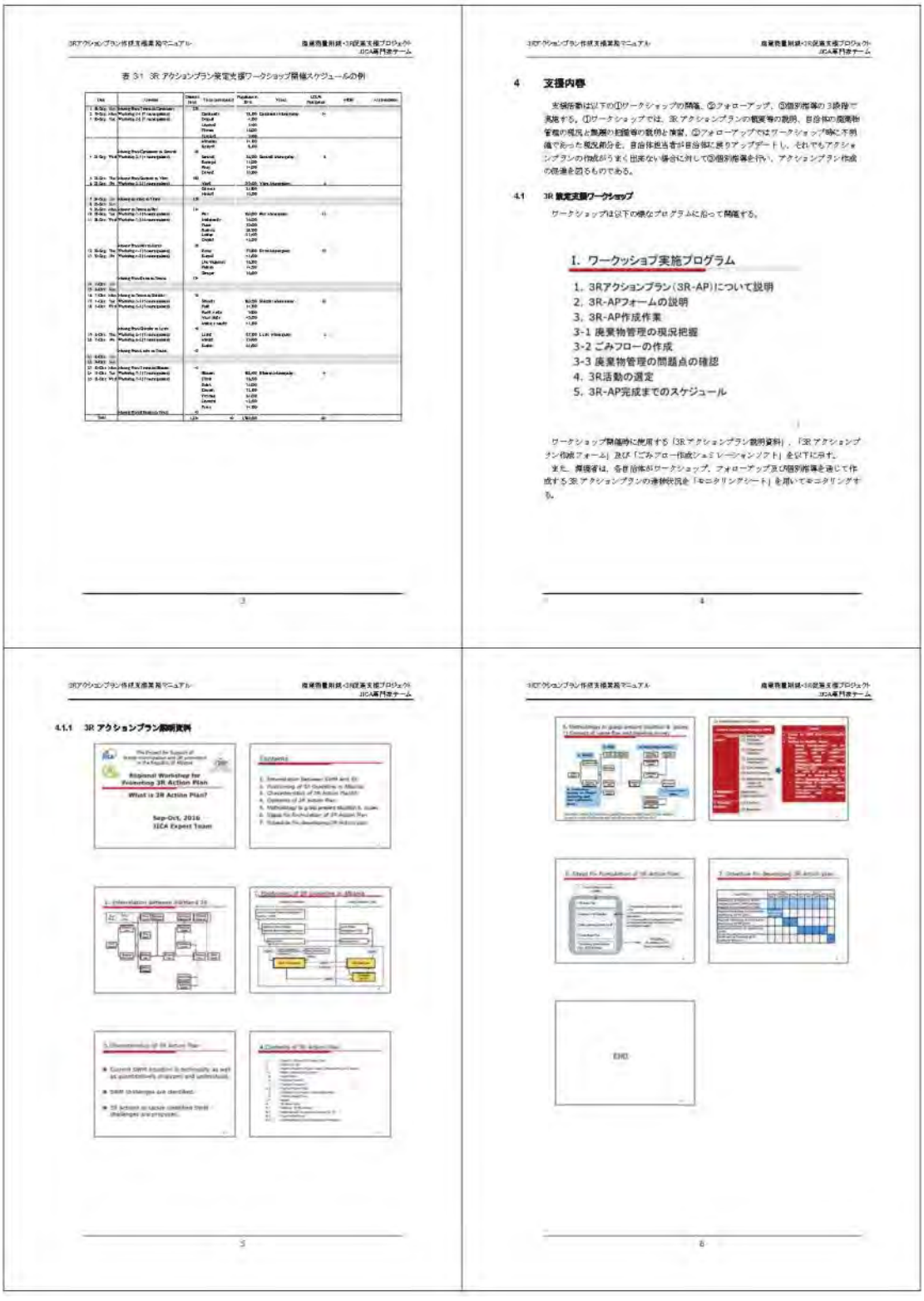


表 3-1 3R アクションプラン策定支援ワークショップ開催スケジュールの例

4 支援内容

支援活動は以下の①ワークショップの開催、②フォローアップ、③個別指導の 3 段階で実施する。①ワークショップでは、3R アクションプランの概要等の説明、自治体の廃棄物管理の現況と課題の把握等の説明と演習、②フォローアップではワークショップ時に不明確であった現況部分を、自治体担当者が自治体に戻りアップデートし、それでもアクションプランの作成がうまく出来ない場合に対して③個別指導を行い、アクションプラン作成の促進を図るものである。

4.1 3R 策定支援ワークショップ

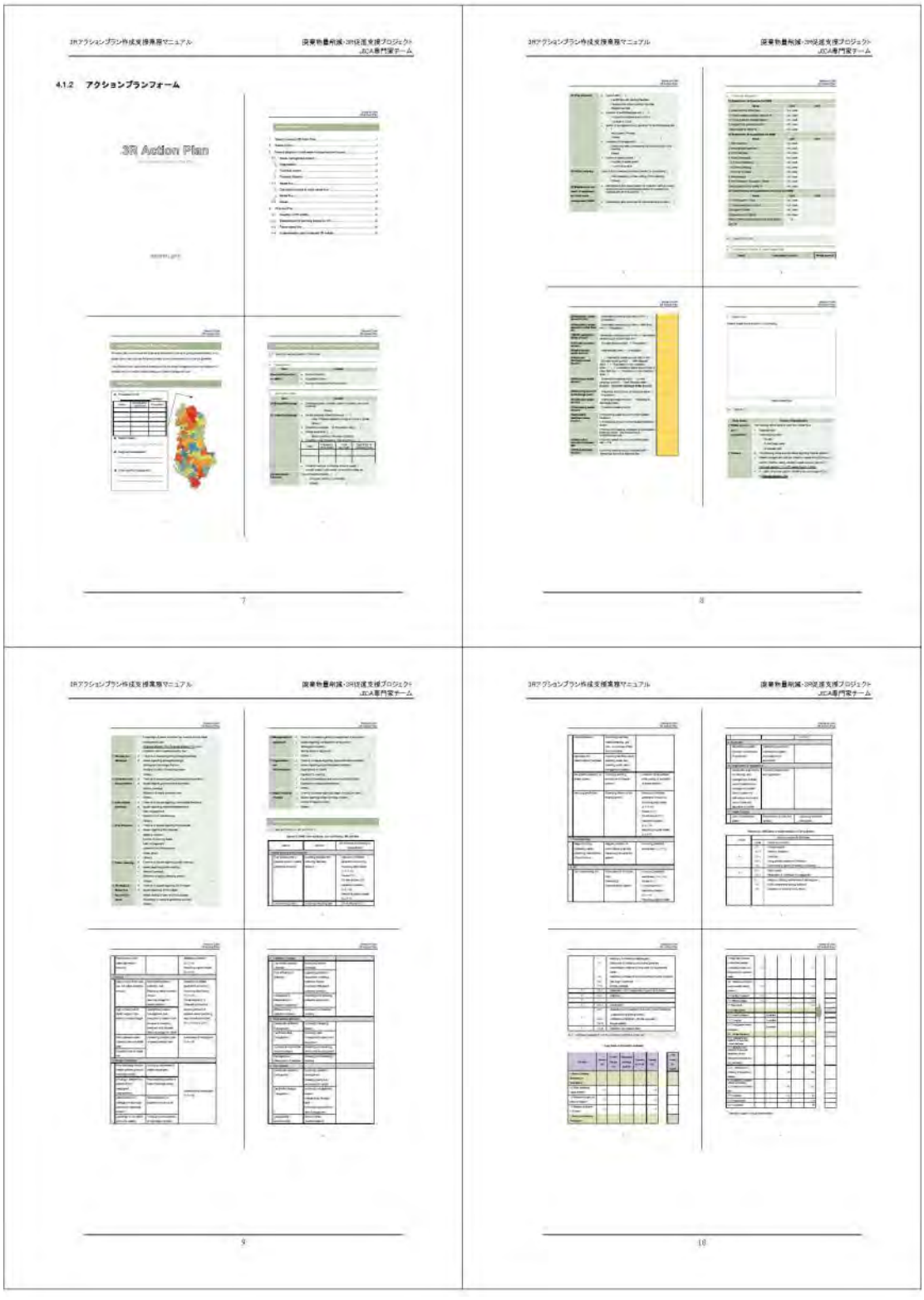
ワークショップは以下の様なプログラムに沿って開催する。

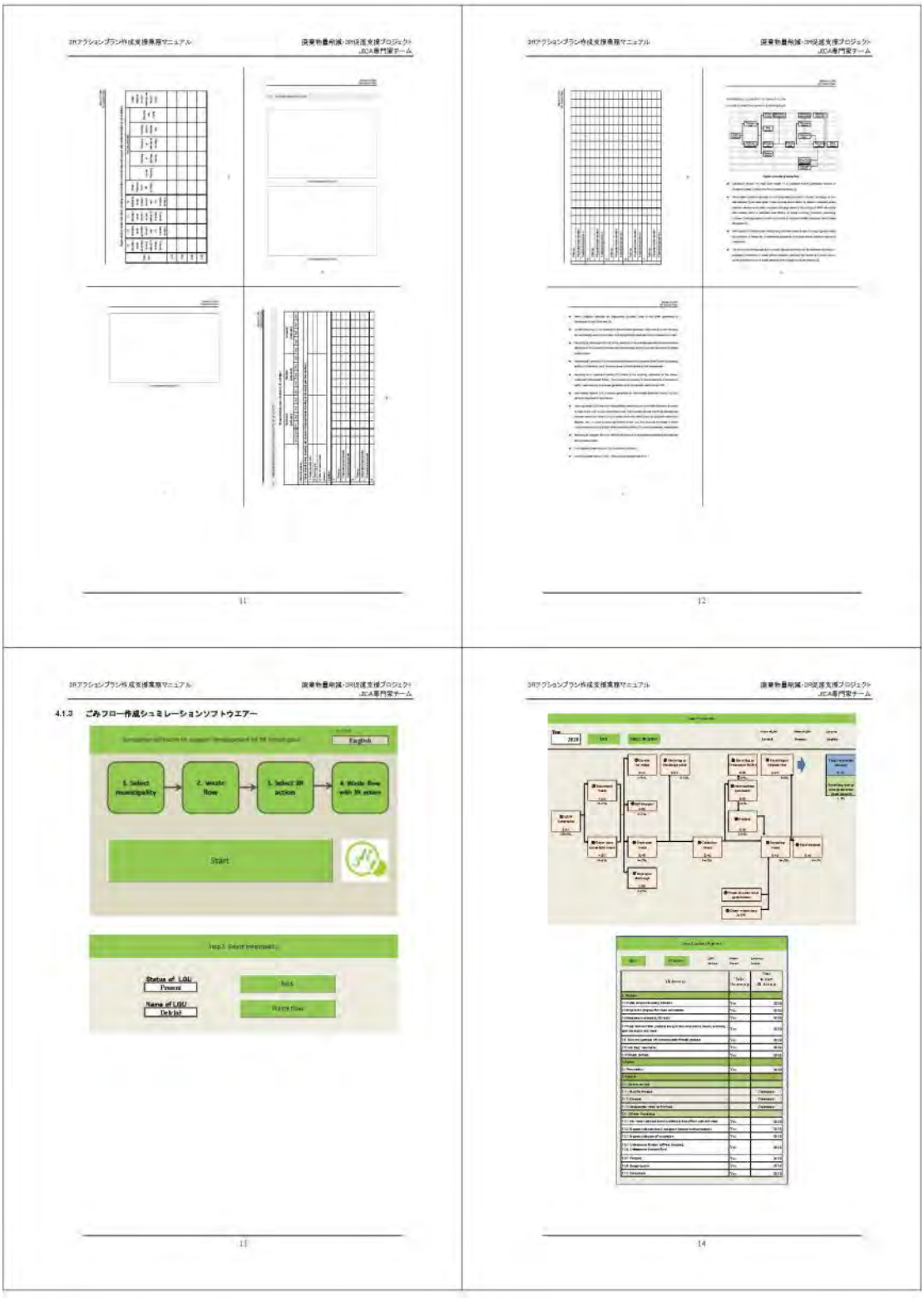
I. ワークッショプ実施プログラム

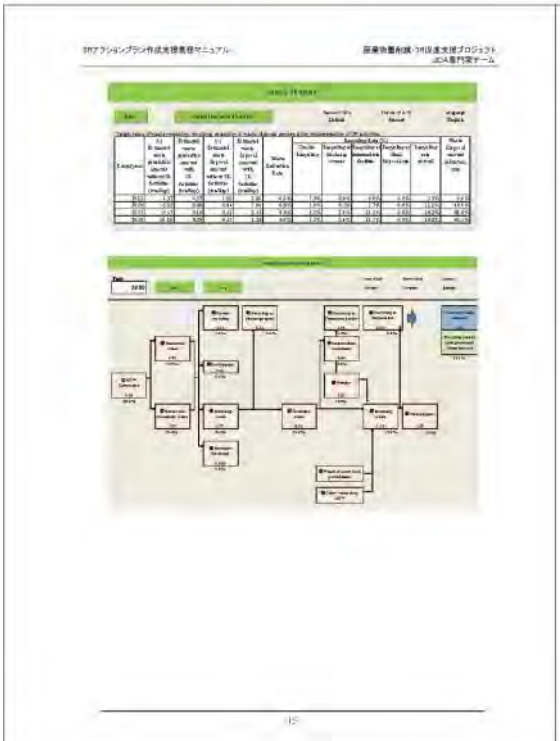
1. 3Rアクションプラン（3R-AP）について説明
2. 3R-APフォームの説明
3. 3R-AP作成作業
3-1 廃棄物管理の現況把握
3-2 ごみフローの作成
3-3 廃棄物管理の問題点の確認
4. 3R活動の選定
5. 3R-AP完成までのスケジュール

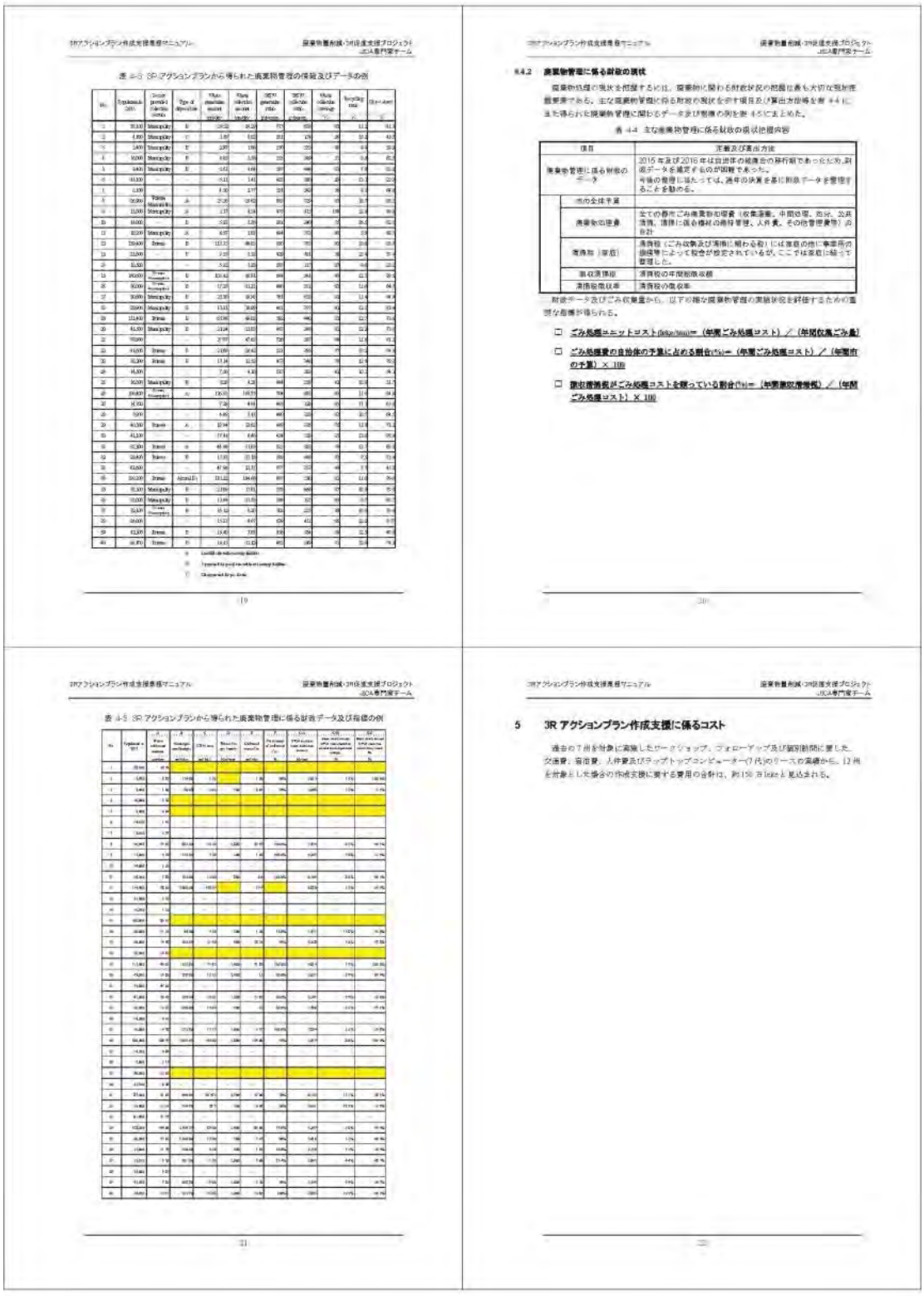
ワークショップ開催時に使用する「3R アクションプラン説明資料」、「3R アクションプラン作成フォーム」及び「ごみフロー作成シュミレーションソフト」を以下に示す。
また、候補者は、各自治体がワークショップ、フォローアップ及び個別指導を通じて作成する 3R アクションプランの達成状況を「モニタリングシート」を用いてモニタリングする。

4.1.1 3R アクションプラン説明資料


4.1.2 アクションプランフォーム
3R Action Plan







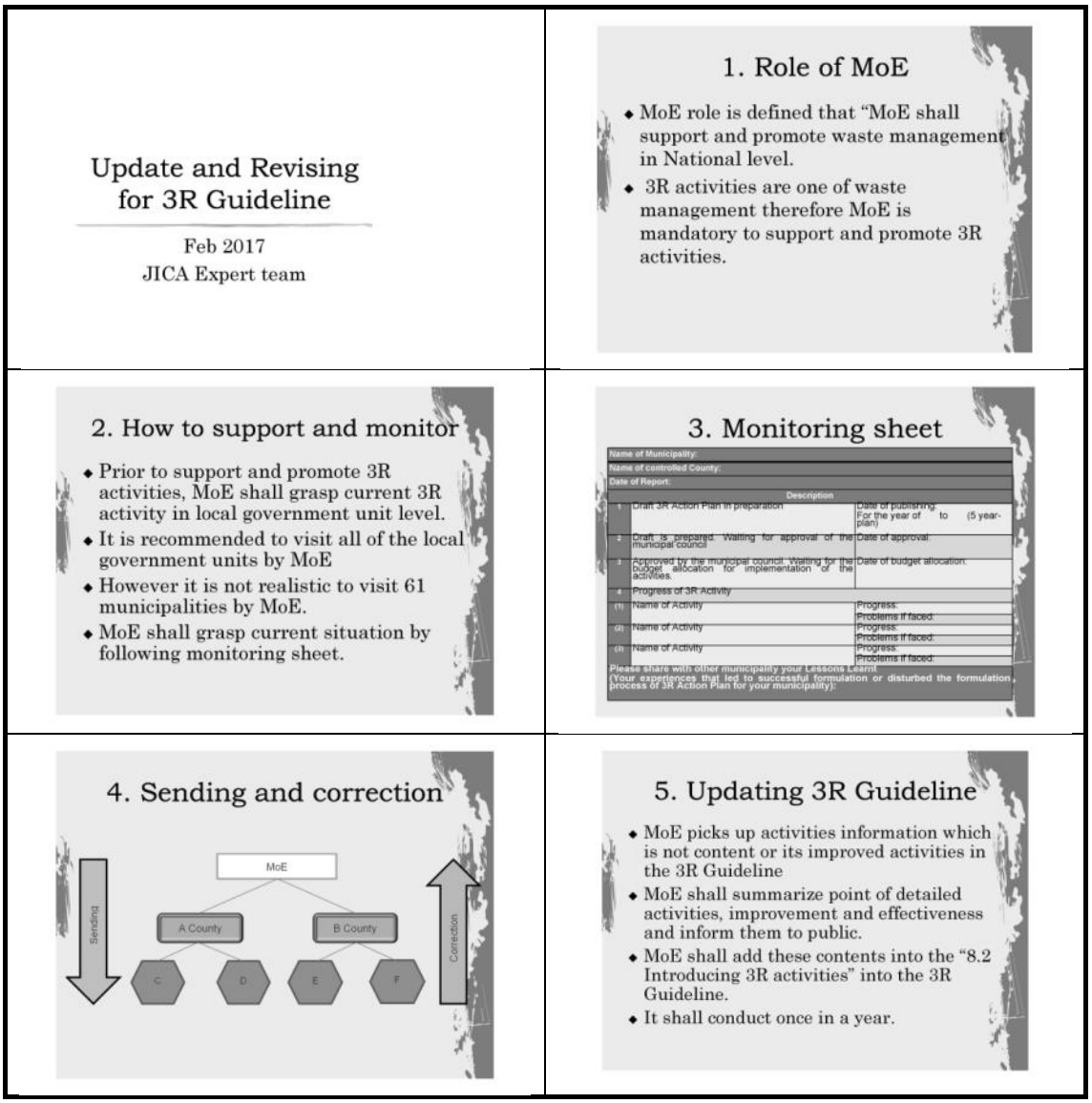
6.3.2　3R ガイドラインの更新及び改定に係る指導

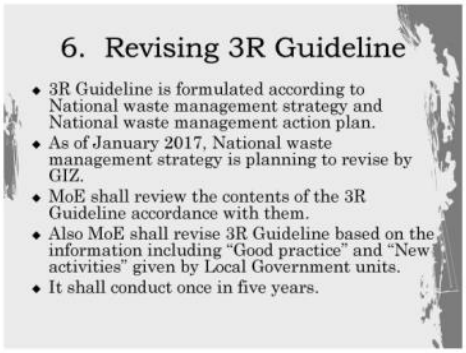
3R アクションプラン作成支援指導に引き続き、3R ガイドラインの更新及び改定に掛かる指導を行った。指導では以下の内容について説明した。

- 更新及び改定は、自治体より上げられる情報に基づいて行う。

- 情報の収集は、環境省から州政府を通じて自治体にフォーマットを送付及び回収して行う。この流れを通じて州政府にも活動内容の情報が共有される。
- 更新は 1 年に一度。自治体からの情報に基づき、Good practice や新たな取り組みなど、既存の 3R ガイドラインに記載されていないものや、改変された方法などを追記する。
- 改定は 5 年に一度実施する。その間に蓄積された自治体からの情報を元に、アルバニアで実際に導入され、より適していると思われる 3R 活動を「3R 活動・技術例」に反映する。
- 3R ガイドラインは国家廃棄物管理戦略及び国家活動計画に基づき策定されているため、これらが改定された場合には、該当部分を改定する。

以下に指導で使用したプレゼンテーションを示す。





6.4　広報

A.　ニュースレター

A.1　発行時期及び部数

	号数	No. 1			No. 2		No. 3		No. 4		No. 5	
	発行時期	2015 年 4 月			2016 年 2 月		2016 年 11 月		2017 年 2 月		2017 年 5 月	
配布先	言語	ｱ語	英	ﾎﾟｽﾀｰ(ｱ)	ｱ語	英	ｱ語	英	ｱ語	英	ｱ語	英
(1)市役所	ﾃｨﾗﾅ市	1,100	0	12	1,200	0	720	0	720	0	720	0
	バウイディアス市	500	0	3	500	0	500	0	500	0	500	0
	ﾂｪﾘｯｸ市	100	0	3	500	0	500	0	500	0	500	0
(2)省庁	MoE	50	0	2	50	0	50	0	50	0	50	0
	MoTI	50	0	2	50	0	50	0	50	0	50	0
	MoUD&T	50	0	2	50	0	50	0	50	0	50	0
(3)その他	JICA	50	50	2	50	50	50	50	50	50	50	50
	JET	50	50	0	50	50	80	50	80	50	80	50
Total		1,950	100	26	2,450	100	2,000	100	2,000	100	2,000	100

A.2　No.1

THE PROJECT FOR THE SUPPORT OF WASTE MINIMIZATION AND 3R PROMOTION IN REPUBLIC OF ALBANIA

REPUBLIKA E SHQIPËRISË
MINISTRIA E MJEDISIT

Newsletter No.1　　April 2015

The Ministry of Environment (MOE) and local municipalities started ***the Project for Support of Waste Minimization and 3R Promotion in Albania ("the Project")*** *with technical cooperation from Japan International Cooperation Agency (JICA). The Project will be running for 3 years from June 2014. This first newsletter introduces the outline of the Project as well as the activities which have been conducted by the Project so far.*

Background: The Republic of Albania has been facing rapid urbanization in recent years. A significant increase in population has multiplied the waste amount, which has negatively impacted the living environment of Albanian cities. In this situation, the role of local governments in solid waste management and their policies have been increasingly important in order to handle increasing wastes properly as well as to pursue an environmentally sustainable society.

Meanwhile, with the aim to become a member state of the European Union, the government of Albania has set national environmental policies in line with the EU Directives. Likewise, in the field of waste management, the National Waste Management Strategy of Albania has been formulated by setting a goal to reduce waste by 25% by 2015, 35% by 2016, and 55% by 2020 from the base year of 1995, which is exactly the same as the goal set by the EU.

In order to achieve this goal, the national and local government units are urgently required to incorporate the concept of "***Recycle***", "***Reuse***", and "***Reduce***" (hereafter referred to "***3R***") into the waste management scheme so as to reduce waste volume as well as to make the most of the natural resources available. Simultaneously, the capacity development in policy formulation as well as implementation of waste management has to be materialized at the level of national and local government in line with the national strategy.

In this background, the government of Albania has requested the government of Japan to provide technical support in improving the waste management issues. Following this request, the Japan International Cooperation Agency (JICA) has conducted a field survey to grasp the needs of Albania in depth, and eventually set "***The Project for the Support of Waste Minimization and 3R Promotion in Republic of Albania***" under the scheme of technical cooperation. In January 2014, the Record of Discussion was mutually signed by the governments of Albania and Japan and the Project has initiated since June in 2014.

1. Outline of the Project

The Project is implemented under the scheme of technical cooperation, which aims to achieve '*technology transfer*' from Japanese experts to counterpart personnel (C/P). JICA expects that the capacity of the related personnel (i.e. C/P), municipalities, and the organizations for SWM is strengthened through such technology transfer. In this Project, **the Ministry of Environment (MOE)** is appointed to be a C/P and responsible for the overall project management.

***Overall Goal*:** The 3R framework is incorporated at the local government level to materialize sustainable solid waste management (SWM) in Albania and the amount of waste is reduced nationwide.

***Project Purpose*:** The MOE's capacity in 3R policy promotion as well as assistance for local governments is strengthened in order to implement the National Waste Management Strategy and Action Plan in Albania.

Outputs: The following six outputs are expected to be achieved by the Project.

Output 1:
The status of SWM and the challenges to introduce 3R in SWM at each local government which are identified by MOE.

Output 2:
A Guideline to incorporate the 3R framework into the regional SWM plan (3R Guidelines) is produced.

Output 3:
Pilot project of 3R practices in SWM is carried out by a small scale local government (Bushat Commune) and its challenges are identified.

Output 4:
Pilot project of 3R practices in SWM is carried out by a medium scale local government (Cërrik Municipality) and its challenges are identified

Output 5:
Pilot project of 3R practices in SWM is carried out by a large scale local government (Tirana Municipality) and its challenges are identified.

Output 6:
MOE's assistance and cooperation to local governments in 3R practices in SWM is strengthened.

The Project Term: June 2014- 2017 May (3 years)

Target Area: The Project targets Tirana, Cërrik, and Bushat Commune.

Target Wastes: "Waste" in this Project refers to the municipal wastes collected from households and commercial entities. Industrial and medical wastes are excluded.

Administration of the Project: The Project is operated jointly by C/P and by the experts dispatched by JICA. Moreover, a Joint Coordinating Committee (JCC) has been established to monitor/evaluate the Project progress. Following is the list of the Main C/P and the Japanese experts.

1) Main Counterpart (C/P):
Positions held within the Project, names, and present position as of July 2014.

- *Project Director* :
  Mr. Pellumb ABESHI, General Director of Environmental Policy, MOE
- *Project Manager* :
  Mr. Redi BADUNI, Director of Environment, the Directorate General of Environmental Policy and Implementation of Priorities, MOE
- *Expert for 3R Guideline Development* :
  Mr. Vladimir BEZHANI, Head of Waste Management & Industrial Accidents Sector, MOE
- *Administrative and Coordination* :
  Ms. Ledjana KARALLIU, Specialist of Waste Management & Industrial Accidents Sector, MOE
- *Cooperator*:
  Mr. Isa MEMIA, Directorate of Policy in Solid Waste, Ministry of Transport and Infrastructure (MTI)

2) JICA Expert Team
JICA dispatched the experts from Kokusai Kogyo Co., Ltd in Japan. Their positions in the Project and names are as shown below.

- *Chief Advisor/ Integrated Solid Waste Management*:
  Mr. Hiroshi FUJITA
- *Deputy Chief Advisor/ Public awareness/ Environmental education*:
  Ms. Chiaki NISHI
- *3R policy & practice*:
  Mr. Koji KUSUNOKI
- *Administrative and policy measures*:
  Mr. Shinnosuke ODA
- *Participatory approach in 3R practice*:
  Ms. Aya ITO
- *Coordinator*:
  Ms. Maiko FUKUTOMI

3) Joint Coordinating Committee (JCC)

In July 2014, Mr. ABESHI, General Director of Environmental Policy, MOE, opened the first JCC. In this JCC, the Chief Advisor, Mr. FUJITA, JICA Expert Team, presented the Work Plan to counterparts of concerned ministries and municipalities. The proposed plan and timeline of the project was explained, and officially agreed by participants.

The 1st JCC in July 2014

2. Activities Conducted in the Project

1) Waste Amount and Composition Survey (WACS): October in 2014

The WACS was held in the Lezhe municipality and Bushat Commune in October 2014. In the WACS, waste samples were collected from households with the support of waste collection companies and local municipalities. As for Tirana municipality, the WACS was not conducted at this time, considering the data availability from the survey conducted in 2011. Based on the data available, current waste amount in the Tirana municipality was estimated by taking account of the national GDP growth rate and other demographic variables.

Number of Sample Household and Survey Period

Municipality	No. of Household	Survey Period
Tirana	100	2011
Lezhe	30	18th - 24th Oct in 2014
Bushat	30	7th - 13th Oct in 2014

Objectives of WACS:

WACS is one of the important surveys to understand estimated waste generation rate at the generation source, and to identify the physical composition of waste. The collected data from WACS is utilized to create a municipal waste flow which shows the process that wastes go through before being discharged to a disposal site and waste amount generated at each stage. In this way, creating the waste flow gives a clear picture of current waste flow in the city, and also will be a base to formulate a future waste management plan as well as 3R policy.

Method of WACS:

The **WACS** consists of two parts: Waste Amount Survey (WAS) and Waste Composition Survey (WCS).

WAS: Wastes are separated into organic and non-organic materials which were collected from households for consecutive 7 days. All collected samples were weighed and recorded by each household. At the end of the survey, waste generation rate per household was estimated using the collected data.

WCS: All collected sample wastes were unpacked and sorted into 16 types: kitchen waste, cardboard, other paper, PET bottle, hard plastic, other plastics, iron, aluminum, other metal, glass, grass/wood, textile, rubber/leather, ceramics/ stone, diaper, and others. By doing this, the physical composition of waste is identified.

Result of WAS:

The result of WAS is shown below. Interestingly, there was no significant difference in the waste generation amount among the three cities. But, the survey revealed that urbanized areas tend to generate more wastes as is seen in the survey result: 373g in Tirana, 361g in Lezhe, and 331g in Bushat.

Waste Generation Amount per capita / day at generation source

Municipality	Organic Waste	Non-Organic Waste	Total
Tirana	172g	201g	373g
Lezhe	221g	140g	361g
Bushat	230g	101g	331g

Weighing Sample Waste

Result of WCS:

In each municipality, kitchen waste accounts for the largest portion of the waste composition ratio. This characteristic becomes more prominent in less urbanized areas such as Bushat commune. The proportion of recyclables in wastes (e.g. cardboard, PET bottle, hard plastic, iron and aluminum) tends to be higher in urbanized area such as Tirana municipality.

Physical Composition of Sample Waste

Composition	Tirana municipality	Lezhe municipality	Bushat Commune
1. Kitchen waste	46.21%	61.30%	69.41%
2. Cardboard	5.28%	2.30%	2.74%
3. Other paper	8.98%	3.20%	2.43%
4. PET bottle	5.02%	2.90%	1.16%
5. Hard plastic	3.09%	2.70%	2.32%
6. Other plastic	9.20%	6.30%	5.18%
7.Iron	0.87%	0.60%	0.12%
8. Aluminum	0.49%	0.90%	0.83%
9. Other metal	0.80%	0.00%	0.40%
10. Glass	3.40%	8.00%	6.83%
11.Grass/Wood	4.10%	2.70%	1.60%
12.Textile	3.15%	4.10%	1.56%
13 Rubber/Leather	1.41%	1.70%	0.22%
14. Ceramic/Stone	1.96%	0.50%	0.02%
15. Diaper	5.53%	2.60%	3.94%
16. Others	0.70%	0.20%	1.25%
Total	100.00%	100.00%	100.01%
Recyclables	14.80%	9.40%	7.20%

Separating sample wastes into 16 categories

2) Recycling Survey: September – November /2014

Objectives of the Survey:
With an aim to estimate the recycling amount at generation source, a recycling survey was conducted in Tirana and other municipalities (Korce, Vlore, and Shkoder) during the period of September to November in 2014. The collected data from this survey will be utilized to create a national recycle flow in Albania.

Outline of the Survey: The survey was carried out in the four municipalities by interviewing collection companies for recyclables.

Result of the Survey: Among the four municipalities, little difference is seen in the total collection amount after excluding automobile scrap which is supposed to be categorized into industrial waste. As for the composition of recyclables, cardboard, soft plastic, metal, and PET bottle have been major items to be collected in the four cities.

Collection Amount of Recyclables

Item		Unit	Average of other municipalities	Tirana municipalities
Paper		t /day	0	0.7
Aluminum			0	1.2
Cardboard			3.2	4.3
Hard Plastic			0.8	5.6
PET Bottle			1.9	17.4
Soft Plastic			3.6	29.1
Metal			1.8	6.5
Metal from Automobile Scrap			8.4	29.7
Total		t /day	19.7	94.5
Recyclables Amount at Generation Source	Total	g/ capita/ day (*)	214	170
	Total excluding automobile scrap		123	117

(*) population of Tirana: 556,600 / Other cities in total: 92,100 (Tentative Figure)

4. Summary
This first newsletter aimed to provide a picture of the current situation of urban wastes in Albania by presenting the results of WACS and the recycling survey. The next newsletter will cover more about waste management at the national level and public opinions for waste/recycling issues from our on-going surveys.

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A.3　No.2

THE PROJECT FOR SUPPORT OF WASTE MINIMIZATION AND 3R PROMOTION IN REPUBLIC OF ALBANIA

Newsletter No.2　February 2016

REPUBLIKA E SHQIPËRISË
MINISTRIA E MJEDISIT

1.5 year has passed since the commencement of ***the Project for Support of Waste Minimization and 3R Promotion in Republic of Albania ("the Project")*** *in July 2014. Although the project encountered the Administrative Territorial Reform and local government election in summer 2015, the Project continued designing Pilot Project for the three pilot municipalities, namely Vau i Dejes, Cerrik, and Tirana. This issue of Newsletter introduces the outline of these Pilot Projects, along with other activities implemented so far.*

PILOT PROJECTS IN 3 MUNICIPALITIES

Vau i Dejes Municipality	
Target area	Entire former Bushat commune boundary
Target Population	14 villages: about 4,600 households / about 300 waste containers
Phase 1	
Issues	Waste are scattered at discharging places (beside waste containers) partly because of irregular waste collection service due to the budgetary restraint. 
Goals	The cost of more efficient and reliable waste collection to be figured out.
Summary of Activity	By setting a new and more efficient collection route and a regular collection schedule, it aims to figure out the cost and collection efficiency based on the record kept during implementation of waste collection, which can be utilized to draft the budget application document to manage the waste collection service with the municipality's own cost from year 2016.
Phase 2	
Issues	Citizen's improper discharging manner has lowered the collection efficiency. Particularly, the serious problems are that general waste is scattered on ground not discharged inside the container, and a massive amount of agricultural waste is discharged besides the container. 
Goals	· Discharging points dedicated for agricultural waste are established in especially problematic locations. (1) Residents follow discharging manner for waste separation: (2) general waste shall be discharged inside a container, · Agricultural waste shall be discharged in a designated place. · Consequently, waste collection efficiency is improved

Summary of Activity	In an identified sample area, a large-sized container designated only for agricultural waste is placed, separately from the normal communal container. Awareness program is carried out in a form of community meeting to explain the method of separate discharging of agricultural waste. 
Phase 3 (currently being studied for detailed design)	
Issues	・ In spite that agricultural waste accounts for a large portion of the collected municipal waste, they have been directly landfilled without any composting. ・ Most of the recyclable valuables such as aluminum cans, PET bottles, and others have been directly transported to landfill from each container since there are few waste pickers operating (not like in Tirana).
Goals	・ Agricultural waste is composted either "on-site" or "off-site" composting ・ "Separation at generation source" of recyclable valuables is conducted at places generating a lot of valuables such as bars and restaurants

Cerrik Municipality	
Phase 1	
Target area	One part of Neighborhood 3 in former Cerrik.
Target population	About 100 households using the concrete-made discharge points built on the roadside.
Issues	・ The concrete-made discharge points located on the main road get waste from other areas also discharged, and waste are scattered around these points. ・ Agricultural and garden wastes are also found mixed and discharged there. 
Objectives	Improvement of discharge/collection of the municipal waste in the rural area in preparation for recyclables separate collection.
Summary of Activity	Door-to-door collection service by a vehicle with playing a melody from a loud speaker ("Bell Collection") is provided, while the exiting concrete discharge points are demolished. Before starting the new service, the target households are informed about the new rules by the municipality staffs with leaflet handed over to them.  

Phase 2	
Target area	Entire former Cerrik Municipality area
Target population	About 14,500 inhabitants
Issues	Due to the lack of proper final discharging site and limited capacity of existing site, reduction of waste amount to be carried in to the site is urgently needed.
Objectives	The waste amount to be reduced through implementation of separate collection of recyclables.
Summary of Activity	Recyclables (PET, plastics, steel/aluminum cans, other metals) will be collected separately from the non-recyclable household waste by Bell Collection on a scheduled timing, while the non-recyclable household waste can be discharged to communal containers and collected as in the current manner.

Tirana Municipality	
Target area	Lapraka area and central area of Tirana
Issues	Separation of recyclables have been tried out time after time, but have not been sustainable, even in school-basis program, previously, while reduction of waste to be landfilled is behind the schedule as targeted in the national plan. Many have pointed out the importance of awareness, but have not reached to the sustainable method.
Phase 1	
Target population	5 public schools in Lapraka area (with about 4000 students in total) and 2 public schools in central area (with about 2800 students in total)
Objectives	School students will be familiarized with the concept of separation of recyclables and will be the gate of communication to the surrounding community.
Summary of Activity	The target recyclables identified through interviews with recyclers active in Tirana municipality area and generated in schools will be separately discharged by students, and be handed over to recyclers. The schools will have record of activities and will present the result to the community including their parents and neighbors. 
Phase 2 (yet to be finalized)	
Target area	Lapraka area and central area of Tirana
Target population	To be identified from the surrounding community of the schools targeted in Phase 1
Objectives	A sustainable manner of separate collection to be developed according to the condition of the target community in order to reduce the amount of waste discharged to the existing communal containers.
Summary of Activity	Methods of separation and collection will be design after discussion with the target community to reflect their opinion, in addition to the awareness activities.

1ST COUNTERPART TRAINING IN JAPAN

The Project plans to carry out counterpart training in Japan for three times during the 3-year project term. The very first counterpart training was conducted in May 2015 for the ministerial level of counterparts. Four Albanian officials from Ministry of Environment, Ministry of Transportation and Infrastructure and Ministry of Urban Development participated in a 8-day training carried out in cooperation with the municipality of Ogaki in Gifu prefecture in Japan.

The participants visited the municipal facilities for waste treatment as well as factories recycling collected through the municipality's collection services such as glasses, plastics, and bulky wastes. The participants enjoyed their experiences eye-witnessing how one local government is implementing 3R through their solid waste management.

The officials of Ogaki municipality welcomed the participants with hearty hospitality not only in the official program as well as during lunch and tea breaks. The participants also had a sneak view of historical side of Japan as well the metropolitan atmosphere of Nagoya city where they stayed during the training.

The similar training program is scheduled to be held in May 2016 - a little longer 2-week program - for the municipality officials implementing the project pilot projects in cooperation with the project staffs.

2nd JCC held

The second Joint Coordinating Committee (JCC) meeting for the Project was held on 27 January, 2016 at the conference room of Ministry of Environment (MOE), chaired by Mr. Pellumb Abeshi, the general director of environment and the Project director, to confirm the designs of the pilot projects to be implemented and the changes in Project Design Matrix (PDM). The participants included representatives from Prime Minister's office, MoE, MoTI, MoUD, three pilot municipalities, namely Tirana, Vau i Dejes and Cerrik, were joined by Mr. Toshiya Abe, the resident representative of JICA Balkan office accompanied by his JICA officials.

The meeting was concluded with the remarks by Mr. Abe emphasizing the ownership by the municipalities and the ministries to the Project, which is the key element of successful implementation of the technical cooperation project.

A.4 No.3

THE PROJECT FOR SUPPORT OF WASTE MINIMIZATION AND 3R PROMOTION IN REPUBLIC OF ALBANIA

Newsletter No.3 November 2016

MINISTRIA E MJEDISIT

The Project for Support of Waste Minimization and 3R Promotion in Republic of Albania ("the Project") *is implementing its pilot projects (hereafter "PP") in three municipalities; namely Vau i Dejes, Cerrik and Tirana Municipalities as reported in the previous issue of the Newsletter. This issue talks about the progress of the PPs for the last 6 months in each municipality up to July 2016, and their implications for 3R Guidelines. The draft of the 3R Guideline is expected to be finalized at the end of the Project work in Albania in May 2016.*
The 2nd counterpart training and the visit to Prizren municipality for taking lessons from their examples are also featured.

Pilot Project in Vau i Dejes Municipality

Vau i Dejes Municipality has planned to implement PP in three phases: Phase 1, improvement of quality and frequency of waste collection service; Phase 2, improvement of waste discharge manner; and Phase 3, promoting recycling (composting).

During Phase 1, the Project supported the municipality to secure the provision of appropriate waste collection service. The services were provided once a week in the entire Bushat AU by utilizing the municipal compactor. Through this, it was expected 1) to achieve improvement of collection efficiency, 2) to gain citizens' reliance on the municipal service, and 3) to improve the town's view by clearing the waste scattering around the containers.

The municipality built trust of the citizens for the collection services through Phase 1 and prepared for the implementation of Phase 2 activity. In Phase 2, the residents were encouraged to discharge their agricultural waste separately into a specially designed container which was installed by the side of the exiting general waste containers in two pilot neighborhoods. Now the residents in these neighborhoods are no longer discharging the agricultural waste on the ground. This has helped the municipality to cut the time of shoveling the waste piles from the ground, leading to the improvement of the collection efficiency.

Agricultural waste is discharged in to the designated container separately from the general waste which is discharge in the small container seen on the left.

The Project is now moving on to Phase 3, in which it is intended to try out methods of composting. Possibility of utilizing the agricultural waste separately discharged in the designated container is also being discussed.

One of the pilot sites for PP2 before installation of the large container specially designed for agricultural waste.

The same site as above after the commencement of the PP 2 activity to discharge agricultural waste separately.

Pilot Projects in Cerrik Municipality

In Cerrik, two PPs are being implemented: 1) improvement of discharge and collection system in rural area; and 2) separate collection system for recyclables from generation sources.

In PP1, it was expected to improve the quality of waste collection and citizen's discharge manner as well as the situation of waste littering around concrete-made waste discharge points existed in the rural area, by providing punctual waste collection service. The municipality removed the structures of

the collection points which existed in the targeted area; i.e. Neighborhood 3 (or Ferme), and implemented door-to-door collection with a collection truck coming to their gates on time as previously scheduled and notified playing the tune selected for this type of collection. In order to inform the collection schedule and rules, the municipality prepared a leaflet and distributed it to every house.

The residents in the target area came to be aware of the timing of the collection, which has allowed them to discharge their waste before or upon the arrival of the collection truck. Thus it has reduced waste being discharged uncontrollably around discharge points.

The residents, knowing the collection time, has prepared their waste and come out to discharge it when they hear the music from the collection truck.

In PP2, it was aimed to improve citizen's awareness about reducing and recycling waste, to reduce the waste amount to be collected and landfilled, and to help improving the situation of the waste littering. For these purposes, the municipality provided "Bell collection" service once a week specifically for the recyclables. A collection truck was prepared to play a tune selected for this type of collection when proceeding through the residential areas, and the residents were expected to discharge the targeted recyclables (PET, hard and soft plastics, steel/aluminum cans, and items made of other steels) once the truck comes close to their houses.

This was implemented throughout the Cerrik AU area. Another leaflet explaining a day and time for collection and rules was distributed to every house by the municipal staffs and their temporally hired assistants.

In Neighborhood 3 where PP1 has been implemented, more residents were cooperative for PP2 and discharged their recyclables on the designated day to the collection truck which comes on the same route as in PP1 than in other areas, where only a few limited households cared to use the service.

According to some narrative reports by the citizens living in the urban area where many apartment buildings exist, they found the service difficult to

The collection worker collects the recyclables separately discharged at a house gate on the day designated for recyclable collection.

catch since it did not stop at one spot for a time long enough for the residents to come out and discharge after hearing the tune from the truck. In a rural area where individual residential houses are predominant, similarly to Neighborhood 3, lack of door-to-door collection of the municipal waste seems to have been one factor hindering the residents' engagement in separate collection of the recyclable.

Based on these results, the Projects have redesigned PP2. For the rural area, in Neighborhood 2, the door-to-door collection of the municipal waste is now also implemented. Furthermore, the municipality has taken a measure to optimize the cost. They provide this municipal waste collection service on the same day with the same truck as the recyclable collection in the two Neighborhoods (2 and 3). The truck is now equipped with a few bins on its deck, and the recyclables discharged by the residents are collected in these bins.

The Project will conduct reviewing survey to extract lessons learnt from these pilot projects so that they will be incorporated in the final draft of 3R Guideline to make suggestions for implementation in other municipalities as well as for continuation of the 3R activities in Cerrik Municipality.

Pilot Projects in Tirana Municipality

In Tirana AU, Lapraka area has been selected as a target area to implement school recycling activity. Five public schools, namely 28 Nentori, Ahmet Gashi, Sukander Luarasi, and Gjergi Fishta primary schools and Aleks Buda High School, in the area have been involved since February 2016 and their students are now separately discharging PET bottles, small drink glass bottles and aluminum & steel cans.

Students are encouraged to discharge the target recyclables in small recycling bins placed on each floor of their school buildings and school yards, and eventually collect them to a big sack allocated for each school. Once the sack is filled, a recycler is contacted for collection.

A frame to hold the big sack has been allocated for each school. Here is shown a student discharging recyclables collected in her classroom to the school sack in 28 Nentori school.

The recycler, in their own yard, sorts out the recyclables accepted from each school by kinds, while removing the items which cannot be sold in market, and weighs the marketable recyclables by kinds. The money for the marketable recyclables is handed over to each school, which will be managed and utilized by each school for their school improvement. One school collects about 57 kg in average for one selling, containing the target recyclables as well as a few other recyclables, and is worth about 1138 leke in average. Most of them are discharged in school by their students but some of the schools have started encouraging students to bring in the recyclable from their houses.

Most of the schools have sent a few of their students for inspection of this weighing process and they have become familiar with what to be collected and what not to be. This has helped reducing non-recyclables discharged in to the recycle bins.

28 Nentori school students inspected the weighing process of the recyclables.

On the other hand, the schools discharge a lot of paper and plastic bags as seen in any other schools too, but they are currently not targeted in PP since recyclers in the market deal with such materials only in bulk. Students are aware that these materials are also recyclable generally, and it will be necessary to find a solution to putting them on route for recycling.

The Project has started PP1 targeting schools with in intension to expanding the focus to their surrounding community. In May, at the end of the academic year, the Project conducted a questionnaire survey for the students' parents of the target schools. The result shows very high interest of them in the recycling activity and willingness to participate in a similar activity with their recyclables generated at household level.

Meanwhile, before the summer break, a few students representing Aleks Buda High School visited café bars in their community and explained about the school recycling activity, requesting for their cooperation. Once the new academic year will start, student groups will visit some of these bars to collect recyclables from them.

Aleks Buda students explaining the bars in their school neighborhood about their recycling activity and asking for cooperation.

2nd Counterpart Training in Japan

The Project invited four counterparts from the municipalities of Cerrik and Vau i Dejes, who are implementing the pilot project in cooperation with the Project members to the Ogaki City in Japan in May 2016. The training lasted for 10 days, starting from 18 May, and they had lectures and sight visits to observe and learn the solid waste management conducted by a local government in Japan.

Courtesy visit to the Mayor of Ogaki.

The training program included visits to the municipal incineration and recycling (separation) facilities, and

private recycling companies dealing with woods, wasted oil, and glasses, as well as a bulky waste treatment facility which is run by a partial-affairs association of the neighboring municipalities.

They also visited a citizen's group and learned their efforts to collaborate with the municipality in the field of waste management. The learned how a "cardboard box composting" works and how it can be maintained, and observed the group's farm where they compost the agricultural waste.

The training participants visit the recycling facility for plastic materials.

The participants were highly satisfied with the training, and impressed with the waste treatment which only leaves the incinerated ash to be landfilled at the final disposal site. They were also surprised to learn that the Ogaki municipality's SWM plan clearly mentions that the role of citizens in the municipal waste management. Recognizing their road to take for betterment of solid waste management back in their home towns is very long, the counterparts are now eagerly involved in the discussions and implementation of the pilot projects with the project members in their respective municipality

They also enjoyed some sightseeing in Nagoya and Tokyo during a weekend. Here a Samurai-costumed performer posed with them.

Study Trip to Prizren Municipality

On 15 and 16 May 2016, The Project visited Prizren Municipality in the Republic of Kosovo, where "the Project for Enhancement of Capacity for Waste Management toward Sound Material-cycle Society" had been implemented from 2011 until 2014, with participation of eight Albanian counterparts to observe their current solid waste management.

The project counterparts participated in the visits followed by a brief explanation of the outline of the past project and the current status of the waste management in Prizren as well as their master plan of SMW, which was presented by the chief of the solid waste management section of Prizren municipality. The visits included households practicing home composting using the composter provided by the municipality and agricultural waste composting in their home orchard, a green area attached to an apartment building where the residents "adopt" the area as if their child and carry out daily maintenance with maintenance equipment provided by the municipality. They also visited a village located in the mountainous outskirt of Prizren, where the municipality conducts door-to-door bell collection services once a week, just like they do in the town area. The participants found the program beneficial and were very impressed with the high "waste tax" payment ratio (4.5 euro per month, and more than 80% of the households pay duly). They were also amazed with the presentation summarizing school environmental activities implemented under close instruction by the municipality staffs.

Getting explanation about their monitoring system for waste tax collection (Day 1)

However, in terms of the composting activities, although the counterparts evaluated highly the efforts of the users and the municipal officials, "not for Albania" was the majority of the responses. Both examples had relatively large garden or faming field, which may be one reason for this response, but many counterparts pointed out the "difference in their mentality". The counterparts also wished to have visited to the landfill site, which is managed by a separate state institution and not included in the program this time.

Besides of such results, the visit provided a good opportunity to created an atmosphere for close exchanges of ideas among the project counterparts.

A.5 No.4

THE PROJECT FOR SUPPORT OF WASTE MINIMIZATION AND 3R PROMOTION IN REPUBLIC OF ALBANIA

Newsletter No.4 Februrary 2017

MINISTRIA E MJEDISIT

The Project for Support of Waste Minimization and 3R Promotion in Republic of Albania ("the Project") *has completed implementation of their pilot projects in three municipalities namely Vau i Dejes, Cerrik and Tirana Municipalities. Based on the findings learnt through these pilot projects, the Project is now in the process of finalization of 3R Guideline to be adopted by Ministry of Environment. This issue summarizes the findings from the PPs, and also reports about the 3R Action Plan workshops and follow-up visits conducted targeting 40 municipalities in 7 counties from October until December 2016.*

Pilot Project in Cerrik Municipality: Successful implementation of Door-to-door collection for smooth transition to separate collection of recyclables

Cerrik Municipality in cooperation with the Project has implemented two pilot projects: 1) Improvement of municipal waste discharge and collection in the rural area, and 2) Separate collection of recyclables.

Pilot Project 1 started with a commemorative demolishment of concrete-made discharge points and shifted to door-to-door collection with a truck coming on schedule playing a symbolic melody of *Moi bubrrec*..

A majority of residents living along narrow streets where communal containers could not be placed and a large compactor could not access appreciate this new system and are very cooperative. However, for the households living on wider, accessible streets may better be served with a communal container system. This pilot project suggests a municipality to seek for an effective combination of door-to-door collection and communal container collection according to the conditions of each neighborhood.

In Pilot Project 2, separate collection of recyclables was introduced in the urban area as well as in the rural area where the door-to-door collection had started in Pilot Project 2. The collection was conducted in the door-to-door system with another kind of melody being played. However, in the urban setting where apartment buildings are dominant and the residents have easy access to communal containers installed on nearby street did not find this system preferable. On the other hand, in the area targeted in Pilot Project 1 where the residents became accustomed to discharge on scheduled timing, discharging the recyclables separately in the door-to-door system was easily accepted.

Despite of the cooperation in the rural area and from a few households even in the urban area, however, the collected amount of recyclables over a period of eight months was very limited (263.5 kg in total, and 1.09 kg/day in average), due to the very limited generation amount of such "waste" in this municipality. On the other hand, it is noteworthy that the money earned by selling of the collected recyclables are utilized the by municipality for purchasing new containers.

In conclusion, unless it is very strategically incorporated with the general municipal waste collection, a separate collection of recyclables by door-to-door method would not be cost-effective. Moreover, the door-to-door method for collection of recyclables would work better when introduced after the residents are accustomed to such system for the general waste collection.

Pilot Projects in Vau i Dejes Municipality: Necessity for promoting on-site compost of green waste highlighted

In Vau i Dejes, the pilot project was implemented in order in three phases: 1) to secure an appropriate waste collection service by the municipality; 2) to establish an appropriate waste discharging system that citizen would accept; and 3) to establish an

appropriate method for waste reduction.

After establishing on-schedule weekly collection throughout the Bushat administrative unit area during the phase 1, the municipality and the project team concluded that the massive amount of agricultural waste discharge on ground around the containers was largely hindering the efficiency of the collection work. Therefore, in the second phase, they had installed two large containers at the ground level designated specifically for agricultural wastes in two collection points. This has drastically reduced the time required for clearing the collection point upon from 40 minutes to 5 minutes. Moreover, the environment around the containers also improved largely. The municipality has now installed such large containers in two other collection points expecting for the same impact.

In Phase 3, methods to reduce the amount of green waste that are discharged in a large quantity and transported to the landfill were sought after. The municipality and the Project team had a series of discussions and studied the possibility of implementing on-site composting as well as off-site composting. Off-site composting refers to composting method in which organic waste are collected to one large-scale facility where the waste is being composted. This method will after all will not reduce the amount of green waste that need to be transported by the waste collection services, and will require additional cost for transportation and management of the composting facility.

On the other hand, on-site composting, which requires waste generator to carry out composting at their own site, will reduce the amount of green waste to be discharged and to be transported, and will require the municipality less running cost.

In Bushat administrative unit, they have found that about 30% of the households currently carry out on-site composting, while the municipality finds it difficult financially to implement off-site composting. Thus, on-site composting is a preferable method for reduction of green waste for a similar municipality.

However, not every household has enough space to carry out composing nor has willingness to cooperate. In reality, many were found very reluctant about composting even though they generate green waste. In order to promote on-site compost widely, it will be required to develop some measurements to encourage citizens to conduct on-site composting, such as tax reduction or subsidy by a local or central government.

Pilot Projects in Tirana Municipality: Effectivity of awareness raising through school activity endorsed

In Lapraka area of Tirana, five schools continued to work on separate collection of recyclables. Each school developed their own unique way of continuing: Ahmet Gashi and 28 Nentori schools expanded separate collection of recyclables to the families of the students.

Aleks Buda High School now has a strong student group, which works with neighboring cooperative

café bars. The bars keep the recyclables generated from their business and hand over to the students of the group who visit these shops 2 to 3 times a week. These three schools sell their collected recyclables to the recycler who is contacted by a monitoring staff of the Project.

Recyclables brought in by the students of Ahmet Gashi from their homes and gathered in the sack provided by the Project.

Gjergi Fishta school also has some contributions of recyclables collected from the students homes, and they have even managed to find their own collector in the school's proximity, to whose yard the student environmental group delivers the sack filled with the recyclables.

Although the earning from this selling from any of these four school is very small (in average 57kg/sack to earn 1140 leke or so), the actual experience through which the students can witness "the recyclables are resources" has a large impact on the students awareness as well as on their parents.

At Skender Luarasi school, where the amount of recyclables generated is not so big as the others, worked on awareness creating within the school as well as in the community by creating their own awareness materials which summarizes their learning about recycling.

Tirana's experience through implementation of the pilot project suggests that the awareness program requires actual activity involving students to make an impact. Such activity requires an intensive monitoring and support to the schools. Furthermore, the sustainable recycling activity at school level requires a completed circle of flow from separate collection by students at school until selling to a recycler. Without having determined how and to whom the recyclables are handed over, separation of recyclables cannot be completed.

Workshops to support 3R Action Plan formulation by Local Governments

The Project team, accompanied by the counterpart specialists from Ministry of Environment, conducted workshops in seven counties including Gjirokaster, Vlore, Fier, Beret, Elbasan, Shkoder, and Lezhe, in September and October, in order to enhance understanding of the process to formulate 3R Action Plan at the local government level. The team explained in detail, step by step, each component of "3R Action Plan" and provided instructions about how to complete the collection of basic data which serves as a foundation for their planning of 3R activities.

Participants of the workshop in Fier County exercising a waste-flow formulation process.

The workshops were followed up with phone calls and e-mail correspondents so that each participated municipality could have the data filled appropriately. The Project further supported the municipalities by making individual visits and had one-on-one guidance to complete the analysis of the current financial and physical status of their solid waste management. Through this process, twenty-eight (28) municipalities have become prepared to make reasonable and sensible selection of 3R activities fitted to their own situations. The map above indicates the municipalities which have been visited by the Project and are in process of formulating 3R Action Plans.

The Project will support these municipalities continuously to complete the formulation of 3R Action Plan through close communication and at the final seminar to be organized in early March

Terminal Evaluation of the Project conducted by JICA Head Office

From 15th January until 26th January, 2017, the terminal evaluation of the Project was conducted by the evaluation committee consisted of a Japanese consultant assigned for the evaluation by JICA Head Office, an Albanian expert in waste management, as well as two officials from the department of Environmental Management Group of JICA Head Office.

Visiting all three pilot project municipalities, interviewing the project counters at the municipal and the ministerial level, and examining the documents produced so far by the Project, they concluded that the Project would most like to achieve the Project objectives by the end of the Project implementation period; i.e. May 2017.

The evaluation team conducting an interview at a school which cooperated in the pilot project in Tirana

The evaluation team highly evaluated the efforts made by the pilot project municipalities producing valuable findings for formulation of 3R Guideline.

At the Joint Coordination Committee held on the final day of their mission, the team presented their findings to the Project committee members and concluded the evaluation with expectation that the Japanese expert team of the Project and their counterpart officials of Ministry of Environment will thoroughly examine together the draft 3R Guideline being prepared and the ministry official will be familiarized with the contents of it so that they would be well-equipped to support local government in promotion of 3R in Albania.

The evaluation team poses together with the members of Joint Coordination Committee and the Project members.

Final Seminar on 3R Guideline and 3R Action Plan to be held on 9th & 10th March, 2017

The Project as its summarizing activity will organize the Seminar on 3R Guideline and the final workshop for formulation of 3R Action Plan on 9th and 10th March, 2017. The draft of 3R Guideline is expected to be finalized by then in a form of a technical document of Ministry of Environment, and the finalized contents will be introduced to the participants.

The same occasion will be utilized to finalize the draft municipal 3R Action Plans which are being prepared by many municipalities following the instructions provided by the Project. The essential part of selection of 3R activities and formulating their implementation plan will be explained. The participants are expected to complete this process for their 3R Action Plan during the course of the seminar under the guidance of the Project team.

All municipalities will be invited in due course with specific instructions to follow to make the occasion of the seminar a meaningful ones. Those who have not had opportunities to participated in any of the past workshops will also receive invitations and are welcomed to participate with a pre-drafted 3R Action Plan. The form of the Plan will be available from the Project, if any of the participating municipality has not had one yet.

A.6 No.5

THE PROJECT FOR THE SUPPORT OF WASTE MINIMIZATION AND 3R PROMOTION IN REPUBLIC OF ALBANIA

Newsletter No.5 May 2017

This final issue of the Project Newsletter will summarize the highlights in the Project's final stage. ***3R Guideline,*** *as a final product of 3-year* ***the Project for the Support of Waste Minimization and 3R Promotion in Republic of Albania*** *("the Project"), has now been completed, and it will be shared with all relevant officials of Ministry of Environment, Environmental Authority, counties and municipalities as a technical document of Ministry of Environment in early May. A summary of the Guideline was introduced to the municipality officials in charge of solid waste management (SWM) throughout the country at the final seminar held in Tirana on 9th & 10th March 2017. In addition to the Guideline, there are now 26 municipalities which have their own 3R Action Plan drafted. 3 municipalities out of them had opportunities to learn the current SWM in Japan in early April.*

"3R Guideline" now available:

Albania has set a goal to be a member state of European Union (EU) and its environmental policies are set in conformity with EU Directives. Likewise in SWM, the National Waste Management Strategy of Albania (hereafter "the Strategy") legislated in 2015 stipulates the goal to reduce waste 25% by 2014, 35% by 2016, and then 55% by 2020. As a part of the strategy to achieve such goal, the country has prioritized promotion of 3R (Reduce, Reuse, Recycle) of municipal solid waste. On the other hand, municipalities are mandated to deliver and manage proper solid waste management services to their citizens. This means a municipal solid waste management plan should include their plan of promotion of 3R. In order to provide guidance to the municipalities for this planning process, the "3R Guideline" has been developed in line with National Waste Management Strategy as well as National Waste Management Plan.

Front page of "3R Guideline"

The objectives of "3R Guideline" are set as following: 1) Upon a LGU implementing 3R activities, 3R Action Plan is developed according to 3R Guideline. Through this process, 3R Guideline also supports LGU to develop its Waste Management Plan; and 2) 3R Guideline supports a LGU to implement 3R activities. Through this process, 3R Guideline supports realizing activities aimed in their waste management plan.

The Guideline consists of the following 3 components which include the topics as listed below:

1. National Policy on 3R
   - Understanding present situation and issues of solid waste management of the country.
   - National basic policy on 3R
     - Setting the Planning Indices
     - Future goals
     - Milestones for 3R promotion
2. Selection of 3R Activities
   - Screening of 3R activities feasible in Albanian context.
   - Viewpoints and points to be considered for implementation of the selected activities.
3. Implementation of 3R Activities by LGU
   - Formulation of 3R Action Plan
     - Understanding present situation and issued of SWM in the LGU
     - Selection of 3R activities
     - Confirmation of 3R Planning Figures
     - Development of future Waste Flow
     - Development of Plan of Implementation of 3R activities
   - Implementation and Evaluation of 3R activities

Copies of the printed A4-size "3R Guideline" were handed over to MOE from the Japanese Expert Team (JET) of the Project in early May and will be mailed to each municipality. It will come with a CD which contains the formula to support developing current and future "waste flow" for each municipality.

Seminar for introducing the finalized draft 3R Guideline cum the Seminar on reporting result of 3R Pilot Projects:

The Project held its final seminar titled "Seminar for introducing the finalized draft 3R Guideline cum the Seminar on reporting result of 3R Pilot Project" on 9th and 10th March, 2017. The first day of the seminar was organized at Tirana International Hotel, and the second day of the seminar took place in Cerrik Municipality.

The objectives of the seminar were; 1) Reporting the final results of 3R Pilot Project conducted under the Project, 2) Introducing the final draft of 3R Guideline, 3) Deepening understanding on 3R Action Plan and its formulation, and 4) Sharing experiences and lessons of the Pilot Project by visiting Cerrik Municipality.

The final seminar gathered the largest participations for the three years of the Project implementation period from the municipalities throughout the

country; 56 personnel from 40 municipalities, along with the representatives from each of 10 counties, Ministry of Transportation and Infrastructure, and Ministry of Urban Development.

A total of 86 participants filled the venue at Consortium Hall, Tirana International Hotel in Tirana on the first day of the seminar.

It was started with an opening speech by the Ministry of Environment, followed by three presentations about the result of the pilot projects which had been implemented in Vau i Dejes, Cerrik, and Tirana municipalities (The details of the outcomes were introduced in the previous issue of the Newsletter).

Vau i Dejes municipality presented the result of their PP on separation of agricultural waste and necessity for on-site compost.

Cerrik municipality presented the result of their PP on door-to-door collection and separate collection of recyclables.

The ministry also presented the summarized contents of "3R Guideline". The seminar also served an opportunity to the municipality officials to ask their burning questions regarding waste management, including treatment of industrial waste, and setting municipal tariffs for waste, and other waste-related topics. The representatives from MoE and MoTI responded to these questions sincerely.

Tirana municipality presented the result of PP on separate collection of recyclables.

MoE official and the JET facilitated the very active Q & A session during the seminar.

Another major topic of the day was on development of municipal 3R Action Plans. The 3R Action Plan can be developed following the guidance provided in 3R Guideline, but the Project had made their efforts to form more concrete understandings among the municipal officials, through county level workshops and individual visits in the past three months. As a result of this effort, at the time of the final seminar, 24 municipalities had their own 3R Action Plan drafted. In addition to them, two other municipalities had made their own efforts to develop their plans by the seminar. Six more municipalities had completed their analysis of the current SWM status in their municipalities. These municipal 3R Action Plans were handed over back to the respective municipalities during the seminar after the JET certifying the consistency and feasibility of their plans.

Draft of 3R Action Plan were handed back to 30 municipalities.

Ura Vajgurore and Konispol municipalities presented their completed draft 3R Action Plans as good examples.

3rd Counterpart Training conducted in Ogaki City in Japan

The third counterpart training was conducted from 2nd to 12th of April 2017 in collaboration with Ogaki City in Gifu Prefecture in Japan where the past two counterpart trainings were conducted. In this year, three officials who engage in SWM in Municipality of Permet, Konispol and Ura Vajgurore participated in the training. They stayed at JICA Chubu center in Nagoya city, 44km away from Ogaki, while the most part of the program was conducted in Ogaki city. Ogaki city is located in the central part of Japan and has a population of 160,000 in the area of 200 square kilometers approximately.

The program consisted of a series of lectures and site visits. There were three lectures: "SWM in Japan", "Industrial waste management in Gifu Prefecture" and "SWM in Ogaki city", which covered a wide range of topics on SWM and 3R in Japan such as roles of each public sector (central government, prefecture and municipality), private

sector (business enterprise) and citizen in SWM; history of SWM; and legal framework regarding SWM and 3R.

Courtesy visit to the Ogaki City Hall. Three times of trainings under the Project were conducted in collaboration with Ogaki city.

During the site visits, the trainees learned practical work of SWM and 3R of municipal staff in Ogaki city by observing household waste collection and by visiting intermediate treatment facilities (incineration plants, sorting and compressing facility for recyclables, bulky waste treatment facility), two types of final disposal sites (for incinerated ash, and for construction waste) and some facilities related to SWM or 3R (municipal hospital, wood pellet factory, wasted oil recycling facility) in Ogaki. They also visited recycling facilities operated by private sector dealing with plastics and glass bottles and also observed two different types of compost, cow dung compost practiced by farmer and cardboard-box compost by citizen group.

Through the training, the trainees deepened understanding about how SWM and 3R activity are conducted in Japan theoretically and practically.

Ogaki Recycle Center. Here, recyclables collected from households are sorted by materials manually. Then, the recyclables are packed by a compressor.

There were a lot of opportunities for exchanging ideas between Japan and Albania sides in each program. The trainees were impressed not only by seeing technology or system applied in facilities but the high awareness of citizen towards environmental conservation which enables to realize clean environment.

During the wrap-up session conducted on the last day of the training at JICA Chubu Center, the trainees commented "Awareness raising and environmental education are the most important activities for us and feasible action in our municipalities." The trainees were glad to participate in the training and deeply appreciated the hospitality of the people of Ogaki City and the staffs involved in the training. It is expected that the trainees will make use of their experience in Japan for improving SWM and promoting 3R activity in Albania.

Collection work of household waste. The residents discharge waste separately according to the rule at designated discharge point and collection is done on scheduled day.

Final Joint Coordinating Committee meeting held on 25th April

The 6th, and the final, Joint Coordinating Committee (JCC) meeting of the Project was held at Conference room in Ministry of Environment on 25th April, 2017 with a participation of JCC members including representatives from Ministry of Environment, Ministry of Transportation and Infrastructure, Tirana Municipality, Cerrik Municipality, Vau i Dejes Municipality, Tirana County, as well as JICA Balkan Office.

The Japanese Expert Team (JET) of the Project reported the result of the final seminar held on 9th and 10th March and the 3rd counterpart training in Japan held in early April. JET also presented the draft final report of the Project to JCC members for their comments and agreement. The final report includes the summary of the three-year activities of the projects.

JCC members praised the accomplishment of the Project, especially the completion of 3R Guideline for the Ministry of Environment, and the JET's support to

more than 30 municipalities in drafting their 3R Action Plan.

As Mr. Ryohei Anzai, representative of JICA Balkan Office, emphasized in his closing remarks, hereafter it is expected that Ministry of Environment will have "ownership in further promotion of 3R in Albania in close cooperation with local governments and the project energy will be utilized in a way that will continue shaping the improved waste management in Albania."

JCC members gathered for the final meeting on 25th April, 2017

Closing Message From the Project Director

~ Prof. Pellumb Abeshi, General Director of Environmental Policy, Ministry of Environment

Prof.Pellumb Abeshi at the time of signing the minutes for JCC5.

The Ministry of Environment maximally appreciates the contribution provided by the Japanese government and JICA in the framework 3R project. The capacities created and strengthened at ministry level and local government units as part of the pilot project are a guarantee to continue on the road to integrated waste management and to meeting national environmental standards.

Photo Gallery ~Highlights from the Projects ~

The Project had 6 JCC meetings during the past 3 years in order to facilitate inter-organizational coordination for the project implantation.

The JET conducted detailed baseline surveys prior to designing pilot projects in each municipalities

Cerrik municipality successfully introduced door-to-door collection with bell system.

Vau i Dejes proven the effectivity of installation of agricultural waste container.

Tirana municipality shown school activity as effective entry point to the community.

The Project visited 40 municipalities to provide guidance and support their formulation of 3R Action Plans.

The counterpart officials from municipalities participated in every step of pilot project implementation.

The Counterpart training in Ogaki Municipality in Gifu, Japan were conducted 3 times.

The counterpart also had a visit to Prizren, Kosovo to observe their SWM improved through JICA cooperation.

B. 情報公開

以下の情報については各ウェブサイトで公開し、関係者がアクセスできるようにした。

B.1 全国廃棄物管理状況調査

環境省 HP

http://www.mjedisi.gov.al/files/userfiles/Projekte/Rezultatet_e_Studimit_Kombetar.pdf

B.2 ニュースレター

環境省 HP (アルバニア語版のみ)

No. 1: http://www.mjedisi.gov.al/files/userfiles/Projekte/Buletini_nr._1.pdf

No. 2: http://www.mjedisi.gov.al/files/userfiles/Projekte/No.2_Newsletter_Alb.pdf

No. 3: http://www.mjedisi.gov.al/files/userfiles/Projekte/No.3_Newsletter_ALB_(Final).pdf

No. 4: http://www.mjedisi.gov.al/files/userfiles/Projekte/No4_Newsletter_AL_(web).pdf

No. 5: http://www.mjedisi.gov.al/files/userfiles/Projekte/No5_Newsletter_AL.pdf

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https://www.jica.go.jp/project/albania/002/newsletter/index.html